

SECOND SEMI-ANNUAL GROUNDWATER MONITORING REPORT FOR YEAR 2018

LAS CRUCES FOOTHILLS LANDFILL
LAS CRUCES, NEW MEXICO

prepared by



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prepared for



LAS CRUCES UTILITIES
City of Las Cruces, New Mexico

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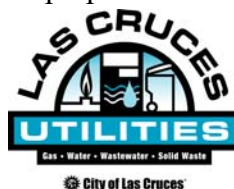
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EXECUTIVE SUMMARY

As a result of ongoing groundwater monitoring at Las Cruces Foothills Landfill since 1999, background and baseline conditions have been established and the extent of groundwater contamination at the site based on assessment monitoring levels (AMLs) for constituents of concern has been defined.

The primary constituents of concern are tetrachloroethene (PCE), trichloroethene (TCE), methylene chloride, and trichlorofluoromethane. The occurrences of PCE, TCE, methylene chloride, and trichlorofluoromethane in monitor wells are likely related to leachate derived from Las Cruces Foothills Landfill.

Contaminant transport mechanisms appear to have been active in the vadose zone, and controlled by clay-rich horizon(s) and the structural geology beneath Las Cruces Foothills Landfill. Groundwater PCE concentrations remain highest at monitor wells MW-1 and MW-7, which are both located off hydraulic gradient from the landfill, demonstrating the important role that has been played by vadose zone contaminant transport. The driving force for contaminant transport in groundwater is the hydraulic gradient. Downgradient contaminant migration in the groundwater is limited by a relatively flat hydraulic gradient west of the Jornada Horst, and PCE and TCE concentration trends in downgradient monitor wells MW-2, MW-5, and MW-6, and assessment monitor well MW-9, do not indicate that the plume is moving downgradient.

In 2018, monitor wells MW-1, MW-2, MW-4, and MW-7 were sampled in June, and MW-1, MW-2, and MW-4 through MW-9 were sampled in December. The attempt was also made to sample up-gradient monitor well MW-3 in June and December 2018, but the well discharged an insufficient amount of water for sampling.

The current nature and extent of groundwater contamination have been determined by the monitoring network. Historical PCE trends that show fluctuations and overall decreasing concentrations at MW-2, MW-4, MW-6, and MW-7 suggest that PCE is naturally attenuating at these locations. As PCE concentrations have decreased below the AML at MW-2, it appears that the PCE plume is becoming smaller and more localized in the vicinity of MW-1 and MW-7. These decreasing trends may be related to completion of the cap and re-routing of storm water in the Phase III Closure Plan. Increasing PCE concentration at MW-8 indicates that vadose zone contaminant transport continues to play an important role. Based on the groundwater sample collected from MW-8 in December 2018, PCE was above the AML at MW-8, but remains below the groundwater protection standard. High water temperature and very low well yield pose challenges to adequate purging and representative sampling at MW-8. Concentration contour maps for PCE and TCE presented in Figures 5, 6, 8, and 9 define the extent of groundwater contamination at the site in 2018.

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ABBREVIATIONS

AML	assessment monitoring level
BLM	Bureau of Land Management
CALs	corrective action levels
DBCP	1,2-dibromo-3-chloropropane
EDB	ethylene dibromide
EPA	Environmental Protection Agency
°F	degrees Fahrenheit
Fig(s).	Figure(s)
ft	feet/foot
ft amsl	feet above mean sea level
ft bgl	feet below ground level
ft bmp	feet below measuring point
ft/ft	feet per foot
gpm	gallons per minute
gw	groundwater
GWPS	groundwater protection standard
GWQB	Ground Water Quality Bureau
JSAI	John Shomaker & Associates, Inc.
mg/L	milligrams per liter
MW	monitor well
NMED	New Mexico Environment Department
NMSU	New Mexico State University
PCB	polychlorinated biphenyl
PCE	tetrachloroethene
PQL	practical quantitation limit
PSTB	petroleum storage tank bureau
PVC	polyvinyl chloride
SWB	Solid Waste Bureau
TCE	trichloroethene
USGS	U.S. Geological Survey
VOCs	volatile organic compounds

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1.0 INTRODUCTION

Las Cruces Foothills Landfill, owned and operated by the City of Las Cruces, has been undergoing site closure. The City of Las Cruces Utilities Department contracted with John Shomaker & Associates, Inc. (JSAI) to oversee groundwater monitoring activities to fulfill the requirements of the New Mexico Environment Department Solid Waste Bureau (NMED/SWB) regulations (NMAC 20.9.9). Presented in this report are the following:

- Results of the year 2018 sampling events (monitor wells MW-1, MW-2, MW-4, and MW-7 in June 2018, and MW-1, MW-2, and MW-4 through MW-9 in December 2018), and summary of past sampling.
- Background values for each constituent from upgradient monitor well MW-3 calculated using analytical results from all five 1999 sampling events, and the May 2000 sampling event.
- Baseline values for each constituent from monitor wells MW-1, MW-2, MW-3, and MW-4, calculated using analytical results from all 1999 sampling events, and the May 2000 sampling event.
- Baseline values for each constituent from monitor wells MW-5, MW-6, and MW-7, calculated using analytical results from all 2003 sampling events, and the December 2004 sampling event.
- Baseline values for each constituent from assessment monitor wells MW-8 and MW-9, calculated using analytical results from the December 2010 sampling event, and all 2011 sampling events.
- Demonstration of source for constituents detected above the groundwater protection standard (GWPS) or assessment monitoring level (AML).
- Recommended strategy for continued monitoring requirements.

This report represents an amendment to the report originally submitted to NMED/SWB on March 12, 2019. Amendments include correction of operational dates for Las Cruces Foothills Landfill, and correction of well numbers in Figure 14. It should also be noted that selected well numbers were also found to be in error in figure 14 of the 2017 second semi-annual groundwater monitoring report (JSAI, 2018a).

1.1 Background Information

Las Cruces Foothills Landfill is located east of Las Cruces city limits in Section 11 of Township 23 South, Range 2 East, at the east end of East Lohman Avenue (Fig. 1). The landfill was in operation from 1966 to 1996. There are no precise records of volume and types of waste

deposited at the landfill, although, the fill material is approximately 40 ft below current surface grade and consists of household and construction waste. There are no records of hazardous waste delivered to this landfill. The landfill has been capped with a low hydraulic conductivity protective cover and re-contoured. Currently, the landfill has a groundwater monitoring system consisting of nine monitor wells (MW-1 through MW-9). Monitor well locations are shown in Figure 1, and monitor well details are presented in Table 1. The wells are equipped with dedicated pumps. Depth to groundwater beneath the landfill is approximately 400 ft, and the climate is considered semi-arid to arid with approximately 8.79 in. of precipitation annually (New Mexico State University (NMSU) weather station, period of record 1892 to 2018). The evaporation rate is almost 10 times the precipitation rate. The type of material beneath the landfill consists of semi-consolidated to very well-consolidated sand, silt, and clay. Geothermal groundwater is present beneath the landfill, with groundwater temperatures ranging from about 90 to 130 degrees Fahrenheit, as characterized by the monitoring well network. The monitoring wells at the landfill are low yielding, and due to low permeability, the presence of a bedrock high, and faults, groundwater at the site is not considered a viable aquifer or connected to the productive aquifers of the Southern Jornada del Muerto Basin (located up-gradient to the north) or the Mesilla Basin (located to the west and south).

1.2 Groundwater Monitoring Plan

JSAI prepared the report *Results from installation of ground-water monitoring system, and proposed ground-water monitoring plan, Las Cruces Landfill, Las Cruces, New Mexico* (JSAI, 1999) for the City of Las Cruces in support of landfill closure documentation required by the NMED/SWB. The NMED/SWB approved the proposed groundwater monitoring plan on May 10, 1999. The groundwater monitoring plan was amended in March 2009 based on the installation of three additional monitor wells in 2003, sampling methods developed with dedicated submersible pumps in each monitor well, previously-approved alternate sampling schedules and parameter lists, and the NMED/SWB request to collect a vadose-zone gas sample from MW-7. JSAI has prepared groundwater monitoring reports for Las Cruces Foothills Landfill from 2000 to present, and the references for these reports are listed in Section 9.

In addition to the groundwater monitoring plan, the City submitted a workplan to NMED/SWB for sampling of all nine monitor wells and preparation of a technical memorandum to address concerns set forth by NMED/SWB in 2016 (JSAI, 2016c), and the aforementioned technical memorandum in 2017 (JSAI, 2017b). An Assessment of Corrective Measures, as requested by NMED, was prepared in 2019 (JSAI, 2019).

Table 1. Details for monitor wells MW-1 through MW-9, Las Cruces Foothills Landfill, Las Cruces, New Mexico

monitor well	year drilled	average depth to water, ft bmp	well depth, ft bgl	average water column, ft	screen interval, ft bgl	casing diameter, in.	pump setting, ft bgl	Grundfos pump
MW-1	1990	393	464	71	434-454 (20)	4.5 ^b	444	5SQE10C-340NE ^a
MW-2	1999	406	435	29	395-435 (40)	4.5 ^b	433	5SQE10C-340NE ^a
MW-3	1999	308	340	32	299.5-339.5 (40)	4.5 ^b	338	5SQE-230 ^d
MW-4	1999	375	455	80	415-455 (40)	4.5 ^b	440	5SQE10C-340NE ^a
MW-5	2003	399	455	56	390-450 (60)	4.5 ^b	422	5Redi-Flo3-380
MW-6	2003	421	435	14	375-435 (60)	4.5 ^b	432	5Redi-Flo3-380
MW-7	2003	382	443	61	378-438 (60)	4.5 ^b	409	5Redi-Flo3-380
<i>assessment monitor wells</i>								
MW-8	2010	364	430	66	370-430 (60)	5.0 ^c	427	5SQE-320 ^d
MW-9	2010	372	415	43	355-415 (60)	5.0 ^c	413	5SQE-410

^a dedicated pump installed prior to June 2001 sampling event

^b schedule 40 PVC, outside diameter

^c schedule 80 PVC, outside diameter

^d dedicated pump installed prior to December 2017 sampling event

ft bmp - feet below measuring point

ft bgl - feet below ground level

2.0 PURGING AND WATER-LEVEL MEASUREMENTS

Due to low yield, excessive drawdown, and slow rate of recovery, selected monitor wells were purged about one week prior to sampling (Table 2). Additional purging of monitor wells was performed prior to sampling to the extent possible based on drawdown.

Water-level measurements were made prior to purging the wells in June and December 2018. Measurements were made to the nearest 0.01 ft with a wire-line sounder. Water-level measurements were referenced from the top of casing at a labeled measuring point. Water-level measurements for the year 2018 are summarized in Table 3, and past water-level measurements are presented in Appendix A.

Table 2. Pre-sampling event purging schedule for 2018 sampling events at monitor wells, Las Cruces Foothills Landfill, Las Cruces, New Mexico

monitor well	date purged	average discharge rate during purging, gpm	duration of purging, minutes	volume purged, gallons	average well volume in 2018, gallons
MW-1	6/21/18	0.1	183	18 ^a	55
	6/27/18	0.5	56	28 ^a	
MW-2	6/20/18	1.3	54	70	22
MW-3	6/21/18	0.2	61	12	23
	6/27/18	(b)	(b)	(b)	
	12/12/18	(b)	(b)	(b)	
MW-4	6/27/18	3.4	59	201	60
	12/12/18	3.9	76	296	
MW-5	12/13/18	2.9	79	229	46
MW-6	12/13/18	1.5	40	60	10
MW-7	6/20/18	0.8	174	139	48
	12/18/18	2.0	130	260	
MW-8	12/12/18	0.4	125	49.5 ^c	63
	12/18/18	0.4	59		
MW-9	12/20/18	1.7	81	138	40

^a pump turned off after 183 minutes on 6/21/18 to prevent damage from over-heating, well pumped dry on 6/27/18

(b) pump on for at least 20 minutes with little or no discharge

^c discharge sporadic and pump turned off at short intervals to prevent damage from over-heating; estimated total 49.5 total gallons purged

gpm - gallons per minute

Table 3. Water-level measurements for 2018 sampling events at monitor wells MW-1 through MW-9, Las Cruces Foothills Landfill, Las Cruces, New Mexico

monitor well	date	top of casing elevation, ft amsl	depth to water, ft bmp	water-level elevation, ft amsl
MW-1	6/21/2018	4,261.61	395.95	3,865.66
	12/20/2018		397.37	3,864.24
MW-2	6/20/2018	4,265.36	406.90	3,858.46
	12/20/2018		407.89	3,857.47
MW-3	6/27/2018	4,356.06	311.35	4,044.71
	12/18/2018		312.62	4,043.44
MW-4	6/27/2018	4,313.20	381.75	3,931.45
	12/12/2018		381.80	3,931.40
MW-5	8/3/2018	4,235.55 ¹	398.10	3,837.45
	12/13/2018		399.81	3,835.74
MW-6	8/3/2018	4,258.32 ²	422.50	3,835.82
	12/13/2018		422.65	3,835.67
MW-7	6/20/2018	4,292.86 ³	384.31	3,908.55
	12/18/2018		384.89	3,907.97
MW-8	8/3/2018	4,286.00 ⁴	367.76	3,918.24
	12/18/2018		367.82	3,918.18
MW-9	8/3/2018	4,212.58 ⁴	374.99	3,837.59
	12/20/2018		375.74	3,836.84

¹ elevation is top of sounding tube (sounding tube is 0.42 ft below surveyed top of MW-5 well vault elevation)

² elevation is top of sounding tube (sounding tube is 0.35 ft below surveyed top of MW-6 well vault elevation)

³ elevation is top of sounding tube (sounding tube is 0.35 ft below surveyed top of MW-7 well vault elevation)

⁴ surveyed top of sounding tube

ft bmp - feet below measuring point

ft amsl - feet above mean sea level

3.0 GROUNDWATER SAMPLING

In June 2018, Las Cruces Foothills Landfill monitor wells MW-1, MW-2, MW-4, and MW-7 were sampled by Las Cruces Water Quality Laboratory staff. In December 2018, MW-1, MW-2, and MW-4 through MW-9, were sampled by Las Cruces Water Quality Laboratory staff. The attempt was also made to sample up-gradient monitor well MW-3 in June and December 2018, but the well discharged an insufficient amount of water for sampling. During the 2018 semi-annual sampling events, groundwater samples were collected in bottles with appropriate preservatives provided by Hall Environmental Analysis Laboratories, Inc. (Hall) of Albuquerque, New Mexico. Samples were placed on ice, and chain-of-custody protocol was followed.

3.1 Well Purging

Dedicated submersible pumps were used to produce water from each well. Due to low yield, excessive drawdown, and slow rate of recovery, selected monitor wells were purged about one week prior to sampling. Additional purging of these wells was performed prior to sampling to the extent possible based on drawdown. For details on well purging, see Section 3.0 and Table 2.

3.2 Sampling of Monitor Wells

In June and December 2018, samples from monitor wells were submitted to Hall for analysis according to the reduced parameter list submitted by JSAI to NMED/SWB on March 11, 2015 (JSAI, 2015), including volatile organic compounds (VOCs; including primary constituents of concern tetrachloroethene (PCE), trichloroethene (TCE), methylene chloride, and trichlorofluoromethane), major ion chemistry, nitrate, total phenolics, total organic carbon, and metals. Monitor wells had been sampled and analyzed according to 20.9.9.20 NMAC Subsections A and C in December 2014, meeting the once-every-5-years requirement for analysis according to the Subsections A and C list. Copies of laboratory reports for 2018 sampling events are provided in Appendix C.

4.0 RESULTS

The City of Las Cruces has performed at least 33 sampling events at monitor wells MW-1 through MW-4 since January 1999, when the groundwater monitoring system was installed (MW-1 was also sampled five times between 1990 and 1996). These sampling events included analysis of parameters required for monitoring at municipal landfills (NMED/SWB regulations Section 1100, tables I and II; 20.9.9.20 NMAC Subsections A, B, and C). The City has performed at least 22 sampling events at monitor wells MW-5 through MW-7 since July 2003, including analysis according to NMED/SWB regulations Section 1100, tables I and II; and 20.9.9.20 NMAC Subsections A, B, and C. The City has performed at least 9 sampling events at assessment monitor wells MW-8 and MW-9 since December 2010, including analysis according to 20.9.9.20 NMAC Subsections A, B, and C. Review of the 2018 laboratory results did not reveal any anomalies in the dataset.

4.1 Direction of Groundwater Flow and Hydraulic Gradient

Based on the depth-to-water measurements collected in 2018, the direction of groundwater flow beneath the landfill remains west-southwest. This is similar to the direction of groundwater flow reported by JSAI during previous sampling events. Groundwater elevation contours and direction of groundwater flow in June 2018 are presented in Figure 1, and groundwater elevation contours and direction of groundwater flow in December 2018 are presented in Figure 2.

The hydraulic gradient beneath the landfill was about 0.047 ft/ft in June and December 2018, compared to the gradient of 0.044 ft/ft in 2017. Graphs showing the time-series trend in water levels for the monitor wells are presented in Figure 3. The average linear groundwater flow velocity calculated using a version of Darcy's Law (method defined in June 21, 2008, letter from James Dyer of NMED/SWB), assuming a hydraulic conductivity value of 0.2 ft/day for the alluvium over the Jornada Horst, and an effective porosity of 0.2, was 0.047 ft/day in December 2018. If a more conservative estimate of effective porosity of 0.05 is used, the average linear groundwater flow velocity would be 0.19 ft/day.

It should be noted that the groundwater elevation at MW-9 was higher than the groundwater elevations at MW-5 and MW-6 in June and December 2018 (Figs. 1 and 2; as it has been in all monitoring events except December 2014). Major ion geochemistry at MW-9 that has resembled that of geothermal wells at New Mexico State University suggests upwelling of geothermal groundwater near MW-9 (Fig. 13). It has also been observed that air discharges from the top of casing at MW-9.

Water levels in monitor wells showed a variety of trends during 2018 (Fig. 3). Water levels generally remained stable between 2015 and 2018 at landfill monitor wells, except for a decline at upgradient well MW-3 and a more complicated trend at downgradient assessment monitor well MW-9. Water levels at MW-3, MW-4, MW-7, and MW-8 are generally at the deepest levels observed since monitoring began in 1999. Water levels in MW-1, MW-2, and MW-5 appear to show seasonal fluctuations on the order of 1 to 2 ft in the past few years, with shallower water levels in the Summer (June).

Groundwater elevation contours have defined a groundwater mound between MW-1 and MW-5, which appears to have formed after water levels rose in these wells in 2010 (Fig. 3). Since 2012, the groundwater mound appears to be dissipating (Fig. 3). The groundwater mound was still apparent in 2018 water-level elevation contours (Figs. 1 and 2), and it appears to be associated with infiltration of storm water that has periodically collected in an unlined storm water containment pond near the northwest corner of the landfill and/or periodic discharge from the East Mesa water reclamation facility to an arroyo near the northwest corner of the landfill, between 2010 and 2018. The recharge signature is apparent in the historical chloride concentration data for MW-1 near the center of the groundwater mound: average chloride concentration was 16 mg/L (standard deviation (s.d.) of 2 mg/L) between 1990 and 2009, and average chloride concentration was 51 mg/L (s.d. of 11 mg/L) between 2010 and 2018.

4.2 Background and Baseline Concentrations

According to 20.9.9.9 NMAC, background concentrations shall be determined from a well that has not been affected by a release from the landfill. The average concentration for each parameter sampled from hydraulically upgradient monitor well MW-3 was used to establish background values. As specified in 20.9.9.10.E(3) NMAC, if the background concentration is

below the practical quantitation limit (PQL), the PQL may be used to establish background. The established background concentrations for each parameter sampled, and corresponding standard deviations, are provided in Appendix B on the spreadsheet for MW-3 (last two columns in spreadsheet). Baseline concentrations were determined for MW-1, MW-2, and MW-4 through MW-9 in the same manner that background concentrations were determined for upgradient monitor well MW-3.

According to 20.9.9.10.E(1) NMAC, background and baseline concentrations for each parameter sampled from each well must be established from the dataset listed in Appendix B using at least four sampling events during the first semi-annual event, and at least one additional sampling during the subsequent semi-annual event. For MW-1 through MW-4, JSAI determined background and baseline concentrations by using the data from the five detection sampling events in 1999 (four events for MW-1), and the May 2000 detection sampling event. For MW-5, MW-6, and MW-7, baseline concentrations were established using the six sampling events in 2003 and the sampling event in 2004. For MW-8 and MW-9, baseline concentrations were established using the December 2010 sampling event, and the four sampling events in 2011. The background and baseline concentrations for each monitor well, and corresponding standard deviations, are presented in Appendix B (last two columns in spreadsheets).

4.3 Summary of Parameters Exceeding the Assessment Monitoring Level (AML)

In June and December 2018, several inorganic and organic parameters exceeded the AML, as defined using the flowchart prepared by NMED/SWB (last revision 12/30/10), and direction by NMED/SWB Project Manager James Dyer, who indicated in a June 21, 2008 letter that “only Subsection A parameters need to have AMLs or CALs established.” A list of these parameters for each monitor well, and corresponding AMLs, is shown in Table 4.

4.3.1 Historical PCE Concentrations

PCE concentrations from each sampling event are presented in Figure 4. PCE concentrations have been at or above the AML of 0.0025 mg/L in MW-1, MW-4, MW-5, MW-6, and MW-7 in nearly every sampling event. The exceptions to this include MW-4 and MW-5 in December 2004 (indicating possible laboratory error in the December 2004 analysis). PCE concentrations in MW-2 have had an overall decreasing trend and have been below the AML

since 2014. PCE concentrations have been above the GWPS of 0.005 mg/L in MW-1, MW-4, MW-6, and MW-7 in nearly every sampling event. Historically, maximum PCE concentrations have been as follows:

- 0.015 mg/L in MW-1
- 0.012 mg/L in MW-2
- 0.011 mg/L in MW-4
- 0.0062 mg/L in MW-5
- 0.012 mg/L in MW-6
- 0.020 mg/L in MW-7

The PCE concentration in upgradient monitor well MW-3 was above the AML in the first sampling event in January 1999, but has been below laboratory detection limits in each subsequent sampling event (indicating possible laboratory error in the January 1999 analysis).

PCE has been detected in MW-8 in each sampling event, except the first sampling event in 2010, when PCE was below laboratory detection limit. The PCE concentration increased above the AML in MW-8 in 2017. PCE concentrations have been below laboratory detection limit in MW-9 in each sampling event.

In summary, PCE concentrations in MW-1, MW-2, and MW-4 through MW-8 have exceeded the AML by less than 0.02 mg/L.

4.3.2 2018 PCE Concentrations

PCE concentrations ranged from a minimum of <0.0005 mg/L (below laboratory detection limit) in MW-9, to a maximum of 0.014 mg/L in MW-7, in 2018. PCE concentrations remained above the GWPS of 0.005 mg/L in MW-1, MW-4, MW-5, MW-6, and MW-7 in 2018 (Figs. 4 through 6; Table 4). PCE concentration was above the AML of 0.0025 mg/L, but below the GWPS, in MW-8 in 2018. PCE concentrations remained below the AML in MW-2, and PCE concentrations remained below the laboratory detection limit of 0.0005 mg/L in MW-9, in 2018. Concentration contours for PCE in groundwater at the site in June 2018 are presented in Figure 5, and PCE contours in December 2018 are presented in Figure 6.

In summary, PCE concentrations in MW-1, and MW-4 through MW-8, exceeded the AML by less than 0.02 mg/L in 2018. Notable trends in PCE concentrations include apparent overall declining trends in MW-2, MW-4, MW-6, and MW-7. PCE concentrations in MW-1 and MW-5 had been on overall increasing trends since 2007, but appear to have stabilized and may be starting to decrease. PCE concentrations in MW-8 appear to be increasing (Fig. 4).

Table 4. Summary of parameters that were detected above the AML in monitor wells at Las Cruces Foothills Landfill, 2018, Las Cruces, New Mexico

monitor well	sampling event	parameter	units	GWPS	CAL	AML	result
MW-1	6/27/18	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.011</i>
MW-4	6/27/18	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.0084</i>
	6/27/18	trichloroethene (TCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.0027</i>
	6/27/18	methylene chloride ¹	mg/L	0.005	0.005	0.0025	<i>0.012</i>
	12/12/18	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.0086</i>
	12/12/18	trichloroethene (TCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.0028</i>
	12/12/18	methylene chloride ¹	mg/L	0.005	0.005	0.0025	<i>0.013</i>
MW-5	12/13/18	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.0051</i>
MW-6	12/13/18	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.0059</i>
MW-7	6/20/18	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.013</i>
	6/20/18	trichloroethene (TCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.0037</i>
	6/20/18	methylene chloride ¹	mg/L	0.005	0.005	0.0025	<i>0.0028</i>
	6/20/18	trichlorofluoromethane ¹	mg/L	na	na	0.00195 ^b	<i>0.0025</i>
	12/18/18	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.014</i>
	12/18/18	trichloroethene (TCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.0032</i>
	12/18/18	trichlorofluoromethane ¹	mg/L	na	na	0.00195 ^b	<i>0.0022</i>
MW-8	12/18/18	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.0046</i>
MW-9	12/20/18	total dissolved solids	mg/L	1,000	1,000	750	<i>1,380</i>
	12/20/18	chloride	mg/L	250	250	187.5	<i>480</i>
	12/20/18	chromium ¹	mg/L	0.05	0.05	0.025	<i>0.067</i>
	12/20/18	iron	mg/L	1.0	1.0	0.75	<i>1.0</i>
	12/20/18	nickel ¹	mg/L	0.20	0.20	0.15	<i>0.17</i>

¹ hazardous

^b 95 percent increase over practical quantitation limit (PQL)

GWPS - groundwater protection standard

CAL - corrective action level, equal to GWPS (20.9.9.14.B NMAC)

AML - assessment monitoring level

bold text indicates concentrations that exceed the AML

bold italic text indicates concentrations that exceed the AML and GWPS

mg/L - milligrams per liter

na - no GWPS for this parameter

4.3.3 Historical and 2018 TCE Concentrations

TCE concentrations from each sampling event are presented in Figure 7. TCE concentrations have been below the AML of 0.0025 mg/L in MW-2, upgradient monitor well MW-3, MW-5, MW-6, MW-8, and MW-9 in each sampling event. TCE concentrations have been below laboratory detection limits in upgradient monitor well MW-3, and in MW-8 and MW-9, in each sampling event.

TCE concentrations have generally exceeded the AML of 0.0025 mg/L in MW-4 since December 2005, and in MW-7 since August 2003, except for December 2015. Historically, maximum TCE concentrations in MW-4 and MW-7 have been 0.0046 mg/L and 0.0037 mg/L, respectively. TCE concentrations exceeded the AML by less than 0.002 mg/L in MW-4 and MW-7 in 2018, and TCE concentrations have remained relatively stable in MW-4 and MW-7 since December 2005. TCE concentration increased above the AML in MW-1 for the first time in June 2017, but decreased below the AML in MW-1 in December 2017 and in 2018. Concentration contours for TCE in groundwater at the site in June 2018 are presented in Figure 8, and TCE contours in December 2018 are presented in Figure 9.

4.3.4 Historical and 2018 Methylene Chloride Concentrations

Methylene chloride concentrations from each sampling event are presented in Figure 10. Methylene chloride concentrations have been below the AML of 0.0025 mg/L in MW-1, MW-2, upgradient monitor well MW-3, MW-5, MW-6, MW-8, and MW-9 in each sampling event. Methylene chloride concentrations have been below laboratory detection limits in upgradient monitor well MW-3, MW-5, MW-6, MW-8, and MW-9 in each sampling event.

Methylene chloride concentrations increased above the AML of 0.0025 mg/L and the GWPS of 0.005 mg/L in MW-4 in December 2005 and were on an overall increasing trend in MW-4 through 2013 (Fig. 10). Methylene chloride concentrations in MW-4 reached a maximum of 0.015 mg/L in June 2015, and decreased to 0.013 mg/L in December 2018, exceeding the AML by 0.0105 mg/L. Methylene chloride concentrations in MW-4 have remained relatively stable since December 2013 and may be starting to decrease. Methylene chloride concentration increased above the AML of 0.0025 mg/L in MW-7 in June 2018, but decreased below the AML and laboratory detection limit in December 2018.

4.3.5 Historical and 2018 Trichlorofluoromethane Concentrations

Trichlorofluoromethane concentrations for monitor wells in which trichlorofluoromethane has been detected (MW-1, MW-2, MW-4, and MW-7) are presented in Figure 11. Historically, trichlorofluoromethane concentrations have been below laboratory detection limits in upgradient monitor well MW-3, and in monitor wells MW-5, MW-6, MW-8, and MW-9.

Trichlorofluoromethane concentrations were above the AML of 0.00195 mg/L (because there is no GWPS for trichlorofluoromethane, the AML is equal to PQL + (0.95 * PQL)) in MW-4 between September 1999 and July 2003, and intermittently between December 2008 and June 2013. Trichlorofluoromethane concentrations have been above the AML in MW-7 in July 2003, and between December 2008 and 2018, except for December 2015.

In summary, the trichlorofluoromethane concentration in MW-7 exceeded the AML by 0.00055 mg/L or less in 2018. Trichlorofluoromethane concentrations have remained relatively stable in MW-7 since December 2008. Trichlorofluoromethane concentrations have been on an overall declining trend in MW-4 since 2002, and were below the AML in MW-4 in 2018.

4.3.6 Historical and 2018 Total Iron Concentrations

Total iron concentrations in each sampling event are presented in Figure 12. Total iron concentrations were detected above the GWPS of 1.0 mg/L in MW-1, MW-2, and upgradient monitor well MW-3 in 1999; in MW-1 in November 2000 and June 2001; and in MW-7 in July 2003. Elevated iron concentrations were likely due to slightly turbid water samples, and turbidity has been minimized by the installation of dedicated sampling pumps at MW-1, MW-2, MW-3, and MW-4 in June 2001, and at MW-5, MW-6, and MW-7 in June 2003. Total iron concentrations were below the AML in all monitor wells in 2018, except for MW-9 in December 2018, which has highly variable iron concentrations attributed to naturally-occurring variability in groundwater quality associated with geothermal upwelling (Section 5.4 below).

4.3.7 Historical and 2018 Total Phenolics Concentrations

Total phenolics concentrations were intermittently detected above the GWPS of 0.005 mg/L in monitor wells MW-1, MW-2, upgradient monitor well MW-3, and MW-4 between January 1999 and September 2002. The highest concentration was 0.070 mg/L, detected in MW-2 in January 1999. The potential for contamination of groundwater samples with phenols from cured cement used as annular sealant has been documented through laboratory investigations

(Smith et al., 2014). Total phenolics concentrations have been below laboratory detection limits in MW-1, MW-2, MW-3, and MW-4 in each sampling event since December 2002. Total phenolics concentrations have been below laboratory detection limits in MW-5 through MW-9 in each sampling event, except MW-6 in July 2003 and MW-3 in December 2017. The total phenolics concentration was above the GWPS in upgradient monitor well MW-3 in December 2017, and was associated with high sample turbidity. Total phenolics were below the laboratory detection limit of 0.0025 mg/L in MW-1, MW-2, and MW-4 through MW-9 in 2018.

4.3.8 Additional Parameters Detected in Monitor Well MW-9

Total dissolved solids (TDS), chloride, nickel, and chromium concentrations exceeded AMLs of 750 mg/L, 187.5 mg/L, 0.15 mg/L, and 0.025 mg/L, respectively, in 2018 (Table 4).

5.0 NATURE AND EXTENT OF GROUNDWATER CONTAMINANTS

5.1 Sources of PCE, TCE, and Methylene Chloride

PCE has been detected in MW-1, MW-4, MW-5, MW-6, and MW-7 at concentrations that exceed the AML of 0.0025 mg/L in nearly every sampling event since January 1999 (Fig. 4). TCE has been detected at concentrations that exceed the AML of 0.0025 mg/L in MW-4 and MW-7 in nearly every sampling event since December 2005. Concentration contour maps for PCE and TCE presented in Figures 5, 6, 8, and 9 define the extent of groundwater contamination at the site in 2018.

In upgradient monitor well MW-3, PCE and TCE have been below the laboratory detection limit of 0.001 mg/L in 32 consecutive sampling events, suggesting that these contaminants are associated with the landfill materials.

Groundwater monitoring results provide evidence that PCE and TCE are present as dissolved phases in groundwater and no phase-separated sources have been detected. PCE and TCE are associated with solvents commonly used for dry cleaning, paint removal, and degreasing processes. Under anaerobic conditions, the chemical and biological transformation pathway indicates that hexachloroethane breaks down to PCE, which breaks down to TCE, which breaks down to trans-1,2-dichloroethylene, cis-1,2-dichloroethylene, 1,1-dichloroethylene, and vinyl chloride (Barbee, 1994). Historically, cis-1,2-dichloroethylene has also been detected at low concentrations at MW-1, MW-4, and MW-7.

Over time, PCE typically is biologically transformed to TCE in soils and groundwater under a range of anaerobic and aerobic conditions. The higher temperatures in MW-1 may be slowing the biological transformation of PCE to TCE relative to MW-4 and MW-7. Monitor wells MW-4 and MW-7 have cooler average groundwater temperatures among the monitor wells, except for upgradient monitor well MW-3, which has the coolest average groundwater temperature. MW-4 is also an end-member among the monitor wells in terms of major ion geochemistry (see Fig. 13). Monitor wells MW-4 and MW-7 have the highest TCE concentrations at the landfill, and appear to share the same structural setting, located in a graben east of the Jornada Horst (Figs. 15 and 16).

Methylene chloride has been detected in MW-4 above the GWPS of 0.005 mg/L since December 2005. Methylene chloride is commonly used as a solvent in paint strippers and removers, and as a metal cleaning and finishing solvent. It is also used as a propellant in aerosols for paints, automotive products, and insect sprays. Trichlorofluoromethane had been detected in MW-7 above the AML of 0.00195 mg/L since December 2008, except for December 2015. Trichlorofluoromethane was used as a refrigerant and a cleaning/rinsing agent, but U.S. production ended in 1996 due to ozone depletion potential.

The occurrences of PCE, TCE, methylene chloride, and trichlorofluoromethane in Las Cruces Foothills Landfill monitor wells are probably not due to other contamination plumes in the area (JSAI, 2003; JSAI, 2005). In order to identify potential alternative contamination sources, JSAI has contacted state and federal agencies including the EPA, U.S. Geological Survey (USGS), NMED/SWB, NMED Groundwater Quality Bureau (GWQB), and NMED Petroleum Storage Tank Bureau (PSTB).

According to the NMED/SWB, there are two closed landfill sites located approximately 1 mile from Las Cruces Foothills Landfill. The exact locations of the closed landfills are not known, but they are located to the southwest and downgradient of the existing landfill. Neither of these sites has monitor wells, and both are reported to be owned by the City of Las Cruces (Dan Fuqua, NMED/SWB, oral communication, February 26, 2004). The NMED's EGIS Mapper Tool did not show any monitored discharges in the vicinity of Las Cruces Foothills Landfill that could be linked to the contaminants observed at the Foothills Landfill. Contaminated sites identified by EPA and NMED, including the Griggs and Walnut PCE plume, are located at least 1 mile downgradient of Las Cruces Foothills Landfill (NMED EGIS Mapper Tool, <https://gis.web.env.nm.gov/oem/?map=egis>). There is no evidence to indicate that the contamination at the landfill is associated with any of these sites (JSAI, 2006a).

5.2 Source of PCE at Assessment Monitor Well MW-8

PCE concentrations have steadily increased at MW-8 between 2011 and 2018, and PCE was detected at a concentration above the AML in MW-8 in December 2018. PCE detections at MW-8 are likely associated with contaminants from Las Cruces Foothills Landfill. PCE and TCE detections at MW-4 and MW-7 provide evidence for contaminant migration southeastward. It appears that the direction of lateral and vertical leachate migration in the vadose zone has controlled the observed groundwater plume. The observed hydraulic gradient for groundwater at the site is east to west.

The average temperature of groundwater purged from MW-8 is 117 degrees Fahrenheit, and the high temperature in combination with very low well yield poses a challenge to adequate purging and representative sampling.

5.3 Source of TDS, Chloride, Iron, Nickel, and Chromium at Assessment Monitor Well MW-9

TDS, chloride, iron, nickel, and chromium concentrations exceeded AMLs in MW-9 in December 2018 (Table 4). The major ion geochemistry of groundwater sampled at MW-9 is similar to that of geothermal wells at New Mexico State University (Fig. 13). The relatively high groundwater elevation at MW-9, combined with the major ion geochemistry, indicate geothermal upwelling. Thus, elevated TDS, chloride, iron, nickel, and chromium concentrations are naturally-occurring and characteristic of geothermal groundwater. The major ion geochemistry at many of the landfill monitor wells appears to represent mixing between the cool calcium-bicarbonate type groundwater sampled at MW-4 (groundwater in the Santa Fe Group aquifer of the Jornada Basin), and the hot sodium-sulfate type groundwater sampled at MW-9 (geothermal upwelling; Fig. 13).

Elevated fluoride and manganese concentrations, and radium-226 and -228 activity in MW-9 in 2011 were also attributed to naturally-occurring variability in groundwater quality, and characteristic of geothermal groundwater in the area (JSAI, 2012).

The high temperature of the water and elevated chloride concentrations may also result in corrosion of metal components in the dedicated sample pump; this could also be a source of elevated metals in water sampled from MW-9.

6.0 CONTAMINANT TRANSPORT MECHANISMS

The driving force for contaminant transport in groundwater is the hydraulic gradient. Figure 14 presents groundwater elevation contours in the area, and shows that the hydraulic gradient west of Las Cruces Foothills Landfill is relatively flat, limiting downgradient contaminant migration. Historical PCE and TCE concentration trends in downgradient monitor wells MW-2, MW-5, MW-6, and assessment monitor well MW-9, do not indicate that the plume is moving (Figs. 4 and 7).

Groundwater elevation contours have defined a groundwater mound between MW-1 and MW-5, which appears to have formed after water levels rose in these wells in 2010 (Fig. 3). Chloride concentrations also increased in MW-1 during this period (see Appendix B). The groundwater mound was apparent in Summer and Winter 2018 (Figs. 1 and 2), and it appears to be associated with infiltration of storm water that has periodically collected in an unlined storm water containment pond near the northwest corner of the landfill and/or periodic discharge from the East Mesa water reclamation facility to an arroyo near the northwest corner of the landfill, between 2010 and 2018. The recharge signature is apparent in the chloride concentration data for MW-1 near the center of the groundwater mound, which showed a significant increase between 2009 and 2010. Monitor well MW-1 showed an increasing trend for PCE between 2009 and 2011 (Fig. 4), which may have been a result of localized recharge mobilizing leachate in the vadose zone.

Contaminant transport mechanisms appear to have been active in the vadose zone, and controlled by clay-rich horizon(s) and the structural geology beneath Las Cruces Foothills Landfill. The geology and structure beneath Las Cruces Foothills Landfill are presented in Figures 15 and 16. PCE concentrations remain highest at monitor wells MW-1 and MW-7, and are increasing at MW-8, located across the groundwater gradient from the landfill, demonstrating the important role of contaminant transport in the vadose zone historically. Based on the findings of vadose zone investigations, the known residual mass of PCE remaining in the vadose zone was determined to be insufficient to further impact groundwater at concentrations above the GWPS for PCE of 0.005 mg/L (DBSA, 2014, 2016, 2017, 2018). The placement of a cover on the landfill and the rerouting of storm water away from the waste further minimize the possibility of PCE migrating to the water table.

Concentration contour maps for PCE and TCE presented in Figures 5, 6, 8, and 9 define the extent of groundwater contamination at the site. PCE and TCE were below laboratory detection limits in MW-9 between December 2010 and 2018, helping constrain the extent of contamination to the west (downgradient) of Las Cruces Foothills Landfill. PCE has been detected at MW-8 between 2011 and 2018, providing evidence for contaminant migration southeastward, across the groundwater gradient, parallel to the graben containing MW-4, MW-7, and MW-8 (Figs. 5 and 15).

7.0 CONCLUSIONS

At Las Cruces Foothills Landfill, monitor wells MW-1 through MW-4 have been sampled at least 33 times since 1999, MW-5 through MW-7 have been sampled at least 22 times since 2003, and MW-8 and MW-9 have been sampled at least 9 times since 2010. The following conclusions are made from the data evaluation:

- Background and baseline conditions have been established.
- The primary constituents of concern are PCE, TCE, methylene chloride, and trichlorofluoromethane.
- The occurrences of PCE, TCE, methylene chloride, and trichlorofluoromethane in monitor wells are related to leachate derived from Las Cruces Foothills Landfill.
- The extent of groundwater contamination at the site based on AMLs for constituents of concern has been defined. Concentration contour maps for PCE and TCE presented in Figures 5, 6, 8, and 9 define the extent of groundwater contamination at the site in 2018.
- Contaminant transport mechanisms appear to have been active in the vadose zone, and controlled by clay-rich horizon(s) and structural geology beneath Las Cruces Foothills Landfill. Localized recharge from storm-water infiltration transported PCE vapors in the vadose zone to groundwater. The driving force for contaminant transport in groundwater is the hydraulic gradient.

- Additional storm-water control resources have been put into place, which should limit future transport of residual PCE vapors in the vadose zone to groundwater.
- Downgradient contaminant migration in the groundwater is limited by a relatively flat hydraulic gradient west of the Jornada Horst, and historical PCE and TCE concentration trends in downgradient monitor wells MW-2, MW-5, MW-6, and assessment monitor well MW-9, do not indicate that the plume is moving downgradient.
- Historical PCE trends that show fluctuations and overall decreasing concentrations at MW-2, MW-4, MW-6, and MW-7 suggest that PCE is naturally attenuating at these locations. As PCE concentrations have decreased below the AML at MW-2 since 2014, it appears that the PCE plume is becoming smaller and more localized in the vicinity of MW-1 and MW-7. PCE concentrations may be starting to decrease at MW-1 and MW-5. These decreasing trends may be related to completion of the cap and re-routing of storm water in the Phase III Closure Plan.
- Increasing PCE concentration at MW-8, located southeast of MW-7, parallel to the graben containing the monitor wells, indicates that vadose zone contaminant transport continues to play an important role. Based on the groundwater sample collected from MW-8 in December 2018, PCE is above the AML at MW-8, but remains below the GWPS. High water temperature and very low well yield pose challenges to adequate purging and representative sampling at MW-8.
- Groundwater elevation contours define a groundwater mound between MW-1 and MW-5, which appears to have formed after water levels rose in these wells in 2010. Chloride concentrations also increased in MW-1 during this period. The groundwater mound appears to be associated with infiltration of storm water that has periodically collected in an unlined storm water containment pond near the northwest corner of the landfill and/or periodic discharge from the East Mesa water reclamation facility to an arroyo near the northwest corner of the landfill, between 2010 and 2018.

8.0 RECOMMENDATIONS

It is recommended that semi-annual groundwater monitoring be continued at a reduced number of sample points, to be determined by NMED/SWB and City of Las Cruces, for effective monitoring of the contaminant plume. Groundwater monitoring is showing that the plume is becoming increasingly localized and naturally attenuating. It is recommended that monitoring be continued at four sample points: monitor wells MW-1 and MW-7 to continue monitoring the increasingly localized and naturally-attenuating contaminant plume, MW-8 to monitor any potential contamination across-gradient from the site, and MW-9 to monitor any potential contamination down-gradient from the site. Background concentrations have been well-established for up-gradient monitor well MW-3 based on twenty years of data for this sample point. As has already been determined by NMED/SWB and City of Las Cruces, the City will continue to transition to low-flow sampling methods due to challenges related to purging sufficient volumes of water from site monitor wells during sampling.

It is recommended that water-level measurements continue to be collected at all monitor wells on a semi-annual basis, for complete monitoring of groundwater flow direction and gradient at and near the Foothills Landfill.

It is recommended that groundwater monitoring be continued at Las Cruces Foothills Landfill on a semi-annual basis generally according to the reduced parameter list presented in JSAI (2015), in order to track the extent and nature of the contaminant plume. In 2019, however, analysis of samples will need to be according to the 20.9.9.20 NMAC Subsections A and C list to meet the once-every-5-years requirement.

It is recommended to maintain storm-water controls as the primary method for limiting transport of residue PCE vapors to groundwater.

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- [JSAI] John Shomaker & Associates, Inc., 2015a, Second semi-annual groundwater monitoring report for year 2014, Las Cruces Foothills Landfill, Las Cruces, New Mexico: consultant's report prepared by McCoy, A.M., and Finch, S.T., Jr., of John Shomaker & Associates, Inc. for the City of Las Cruces, New Mexico, March 11, 2015, 21 p. plus figures and appendices.
- [JSAI] John Shomaker & Associates, Inc., 2015b, First semi-annual groundwater monitoring event of the 2015 monitoring period for Las Cruces Foothills Landfill: consultant's letter report prepared by McCoy, A.M., of John Shomaker & Associates, Inc. to James Dyer, NMED/SWB, Permitting Section, on behalf of the City of Las Cruces, 3 p. plus figures and appendices.
- [JSAI] John Shomaker & Associates, Inc., 2016a, Second semi-annual groundwater monitoring report for year 2015, Las Cruces Foothills Landfill, Las Cruces, New Mexico: consultant's report prepared by McCoy, A.M., and Finch, S.T., Jr., of John Shomaker & Associates, Inc. for the City of Las Cruces, New Mexico, March 17, 2016, 20 p. plus figures and appendices.
- [JSAI] John Shomaker & Associates, Inc., 2016b, First semi-annual groundwater monitoring event of the 2016 monitoring period for Las Cruces Foothills Landfill: consultant's letter report prepared by McCoy, A.M., of John Shomaker & Associates, Inc. to James Dyer, NMED/SWB, Permitting Section, on behalf of the City of Las Cruces, 3 p. plus figures and appendices.

- [JSAI] John Shomaker & Associates, Inc., 2016c, Proposed workplan for Las Cruces Landfill groundwater monitoring: consultant's letter report prepared by Finch, S.T., Jr., of John Shomaker & Associates, Inc. to Josh Rosenblatt, Las Cruces Utilities, 3 p. plus figure.
- [JSAI] John Shomaker & Associates, Inc., 2017a, Second semi-annual groundwater monitoring report for year 2016, Las Cruces Foothills Landfill, Las Cruces, New Mexico: consultant's report prepared by McCoy, A.M., and Finch, S.T., Jr., of John Shomaker & Associates, Inc. for the City of Las Cruces, New Mexico, March 27, 2017, 21 p. plus figures and appendices.
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- [JSAI] John Shomaker & Associates, Inc., 2017c, First semi-annual groundwater monitoring event of the 2017 monitoring period for Las Cruces Foothills Landfill: consultant's letter report prepared by McCoy, A.M., of John Shomaker & Associates, Inc. to James Dyer, NMED/SWB, Permitting Section, on behalf of the City of Las Cruces, 3 p. plus figures and appendices.
- [JSAI] John Shomaker & Associates, Inc., 2018a, Second semi-annual groundwater monitoring report for the year 2017, Las Cruces Foothills Landfill, Las Cruces, New Mexico: consultant's report prepared by McCoy, A.M., and Finch, S.T., Jr., of John Shomaker & Associates, Inc. for Las Cruces Utilities, City of Las Cruces, New Mexico, March 6, 2018, 24 p. plus figures and appendices.
- [JSAI] John Shomaker & Associates, Inc., 2018b, First semi-annual groundwater monitoring event of the 2018 monitoring period for Las Cruces Foothills Landfill: consultant's letter report prepared by McCoy, A.M., of John Shomaker & Associates, Inc. to James Dyer, NMED/SWB, Permitting Section, on behalf of the City of Las Cruces, 3 p. plus figures and appendices.
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ILLUSTRATIONS

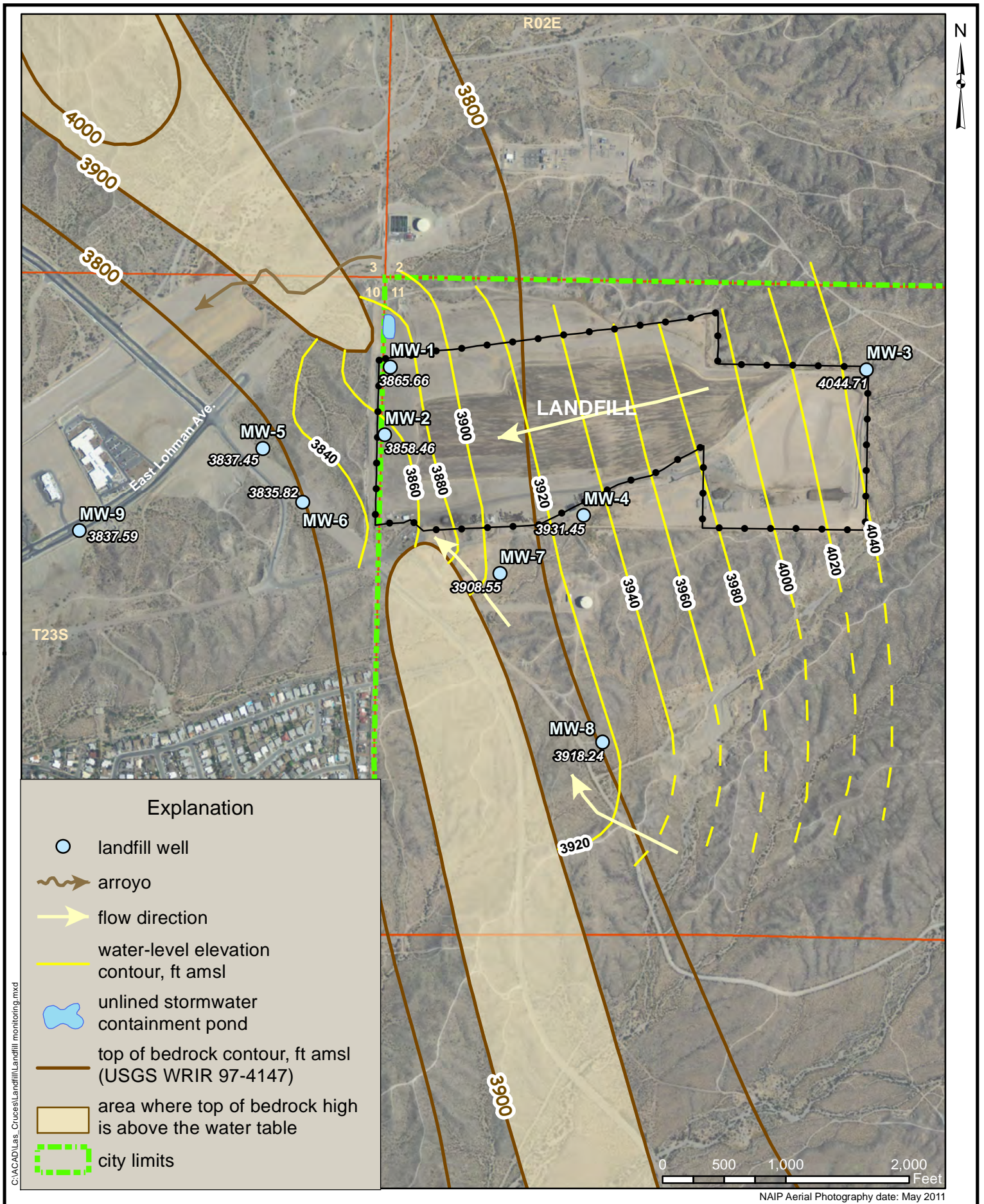


Figure 1. Aerial photograph showing locations of Las Cruces Foothills Landfill monitor wells, groundwater-elevation contours, and direction of groundwater flow June 2018.

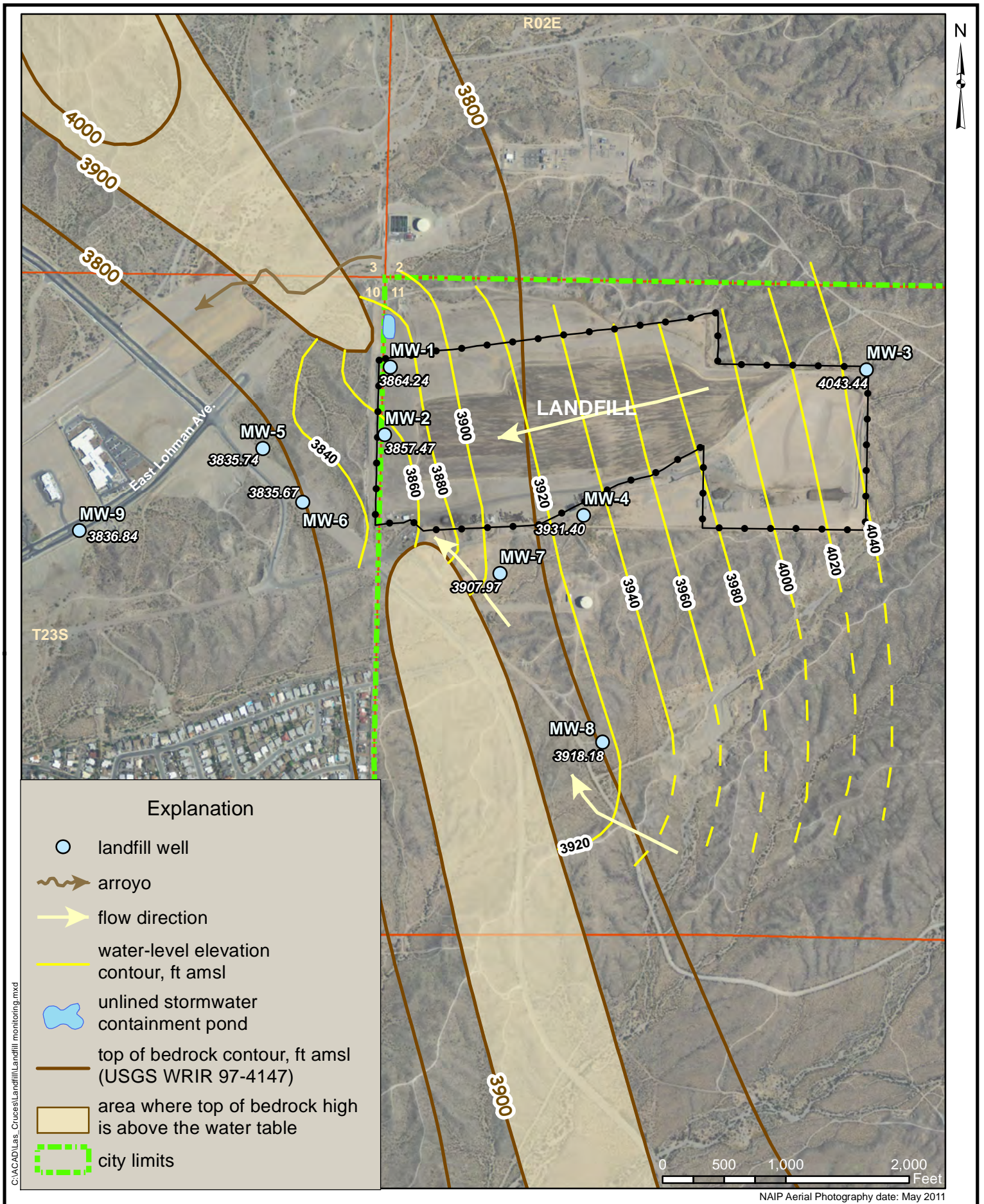


Figure 2. Aerial photograph showing locations of Las Cruces Foothills Landfill monitor wells, groundwater-elevation contours, and direction of groundwater flow in December 2018.

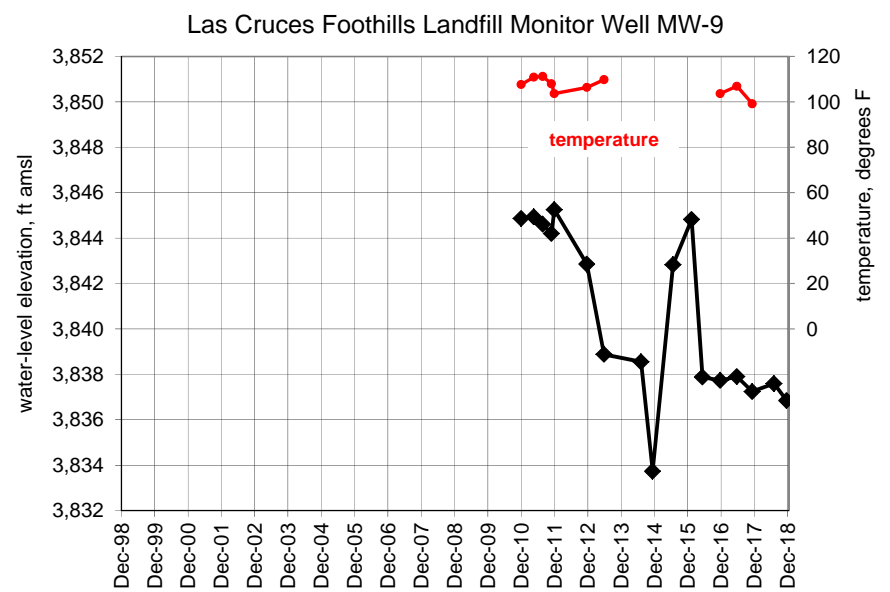
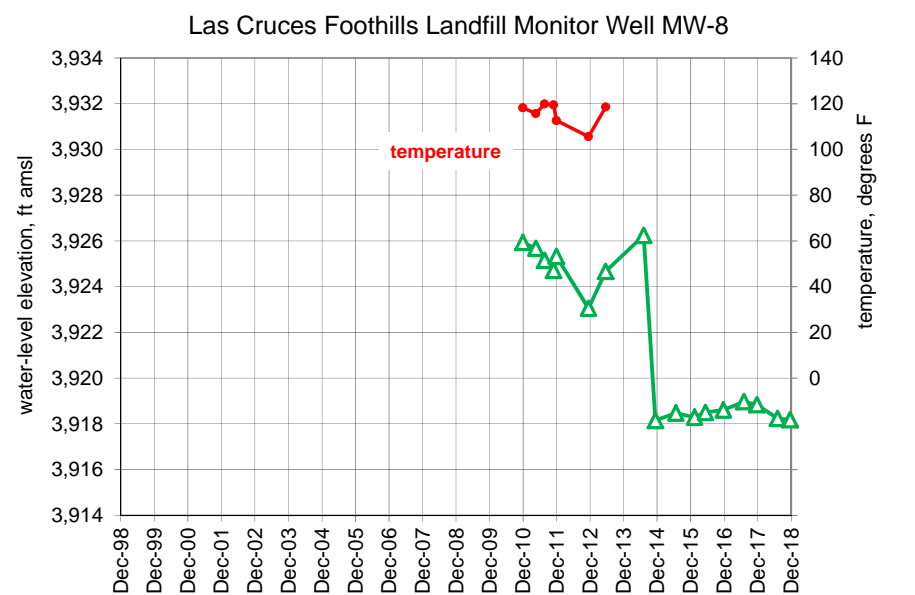
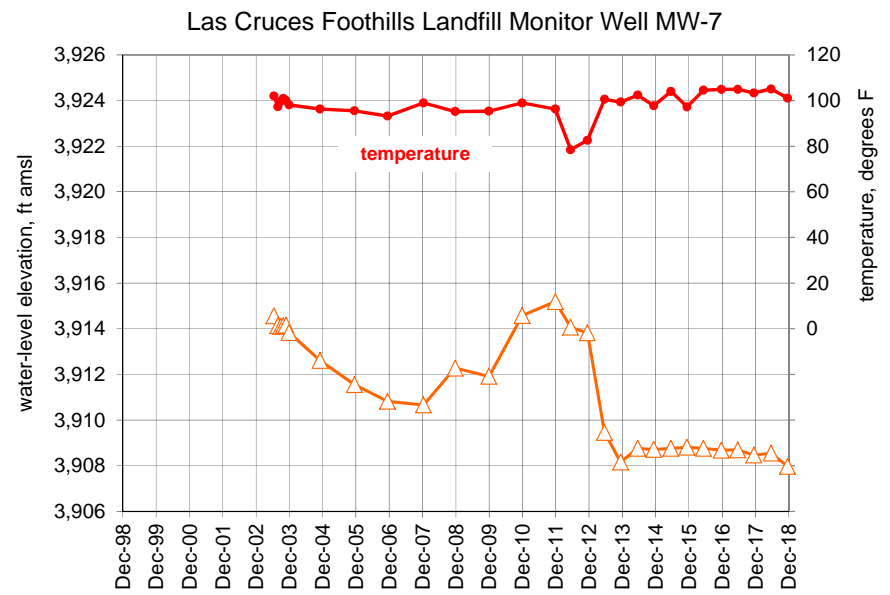
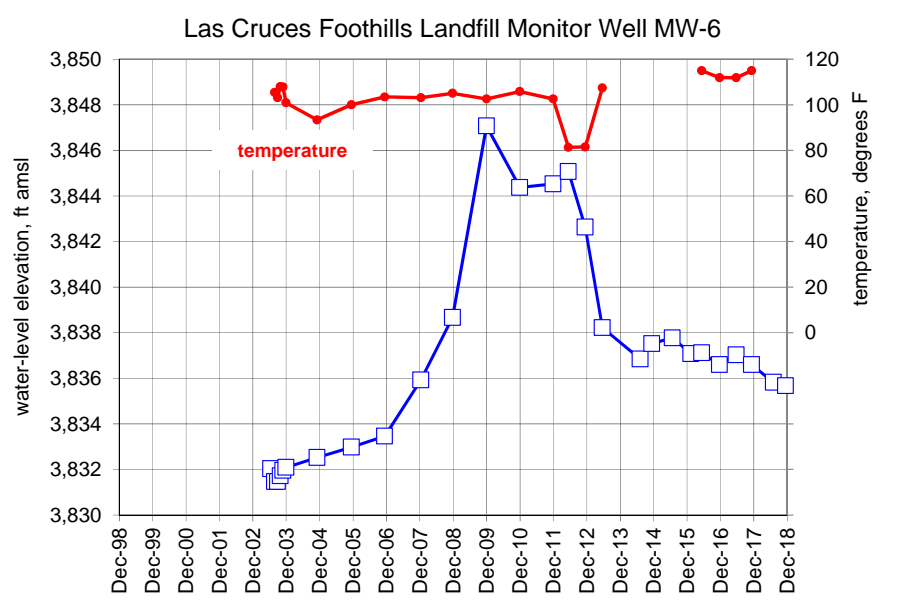
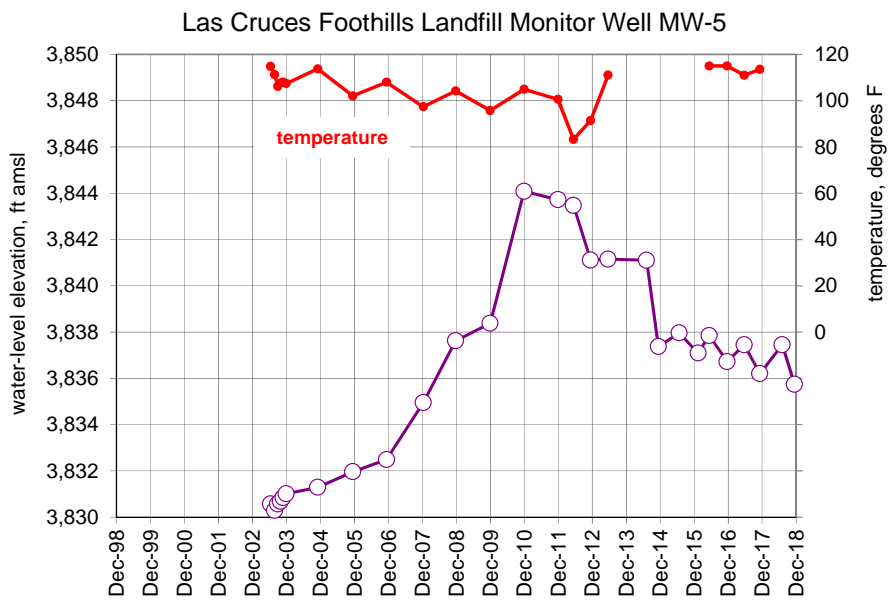
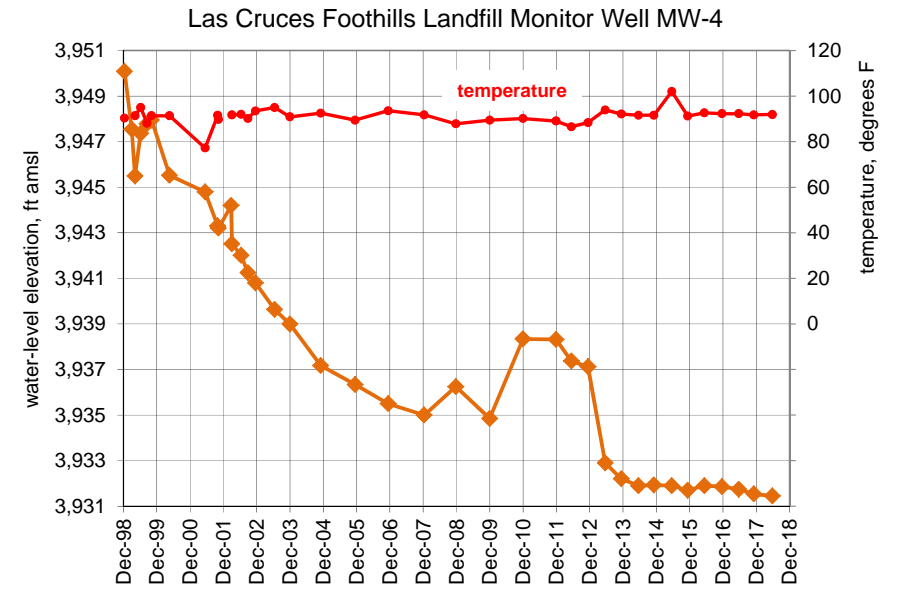
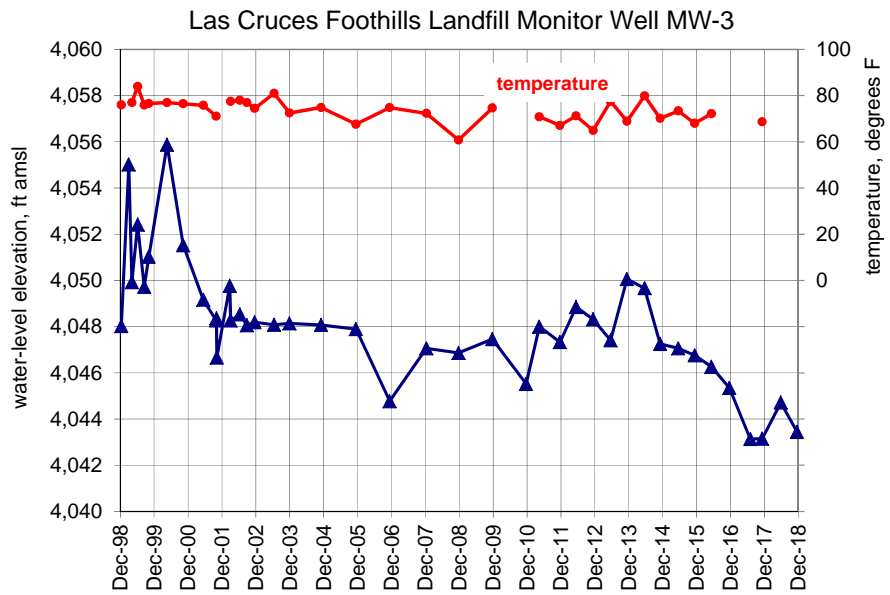
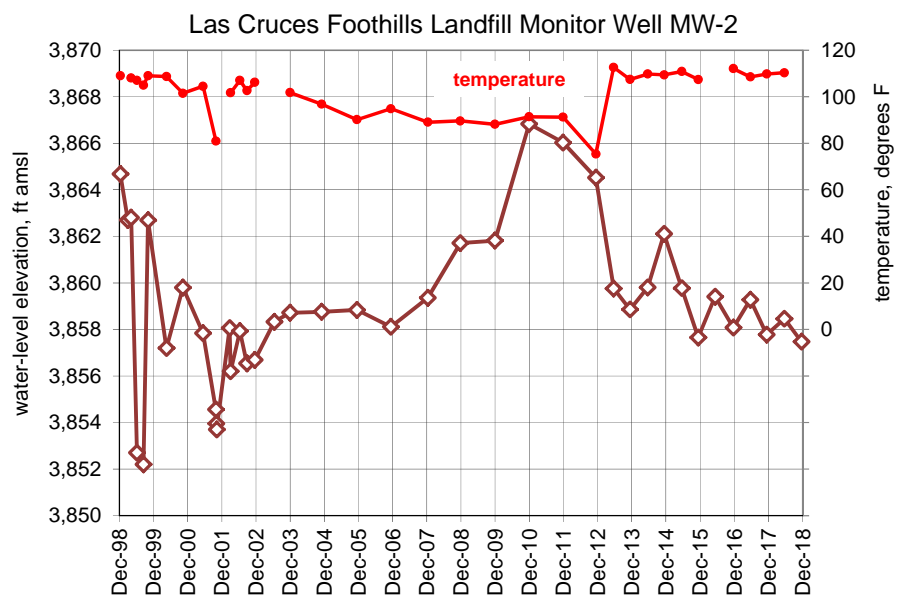
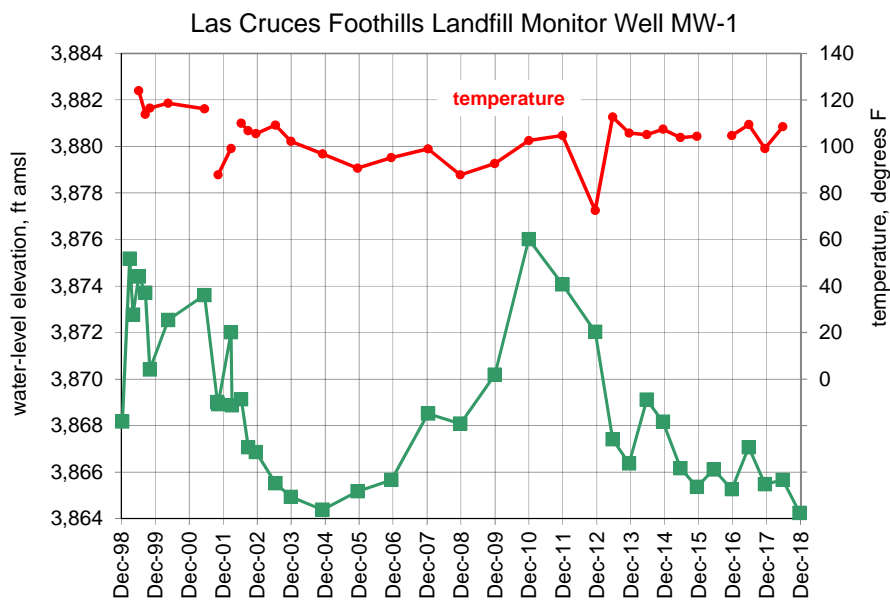


Figure 3. Graphs showing water-level elevations versus time for monitor wells MW-1 through MW-9, Las Cruces Foothills Landfill, New Mexico.

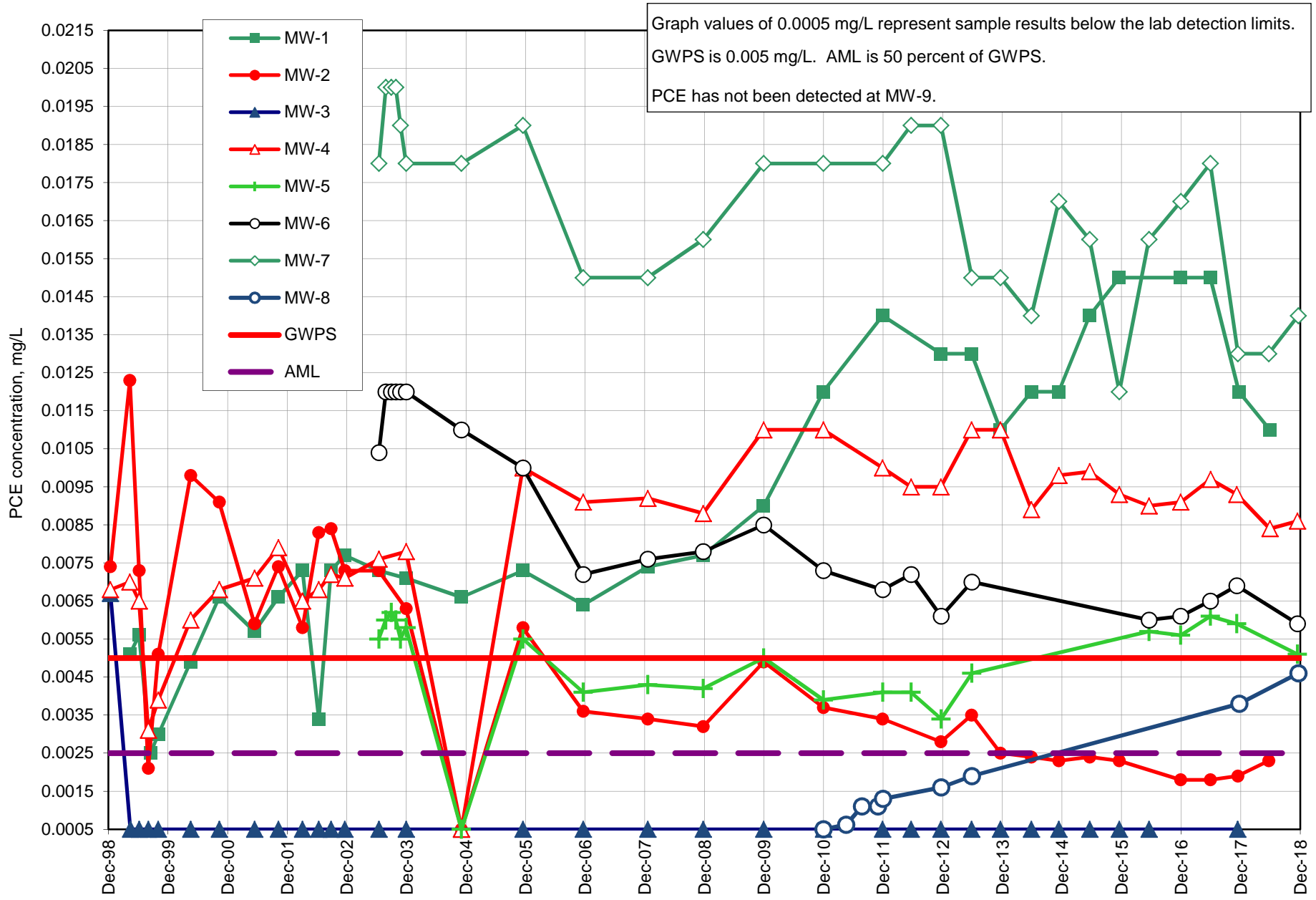


Figure 4. Graph showing tetrachloroethene (PCE) concentrations versus time for monitor wells at which PCE has been detected, Las Cruces Foothills Landfill, New Mexico.

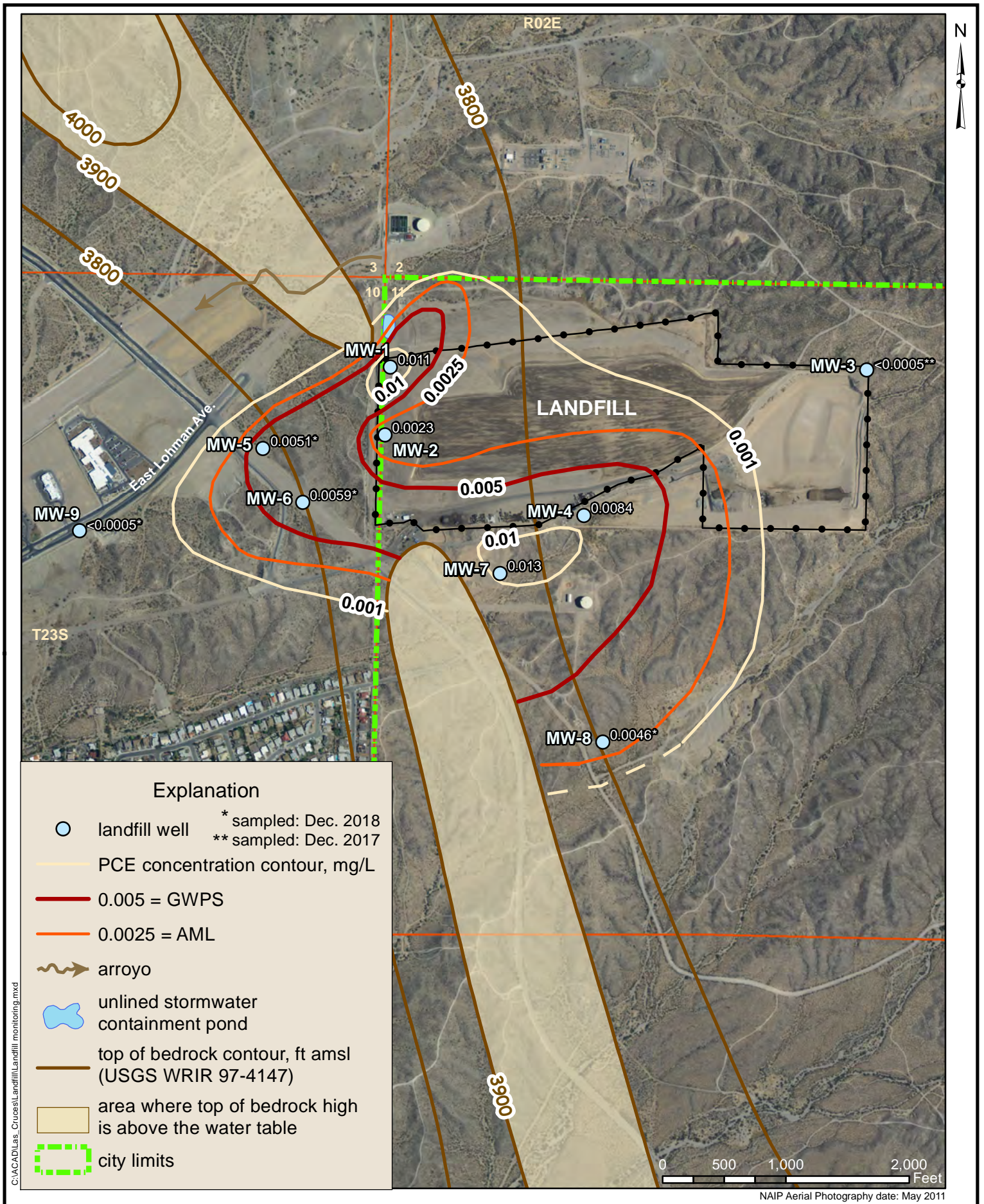


Figure 5. Aerial photograph showing concentration contours of PCE in groundwater, June 2018 unless otherwise noted, Las Cruces Foothills Landfill, New Mexico.

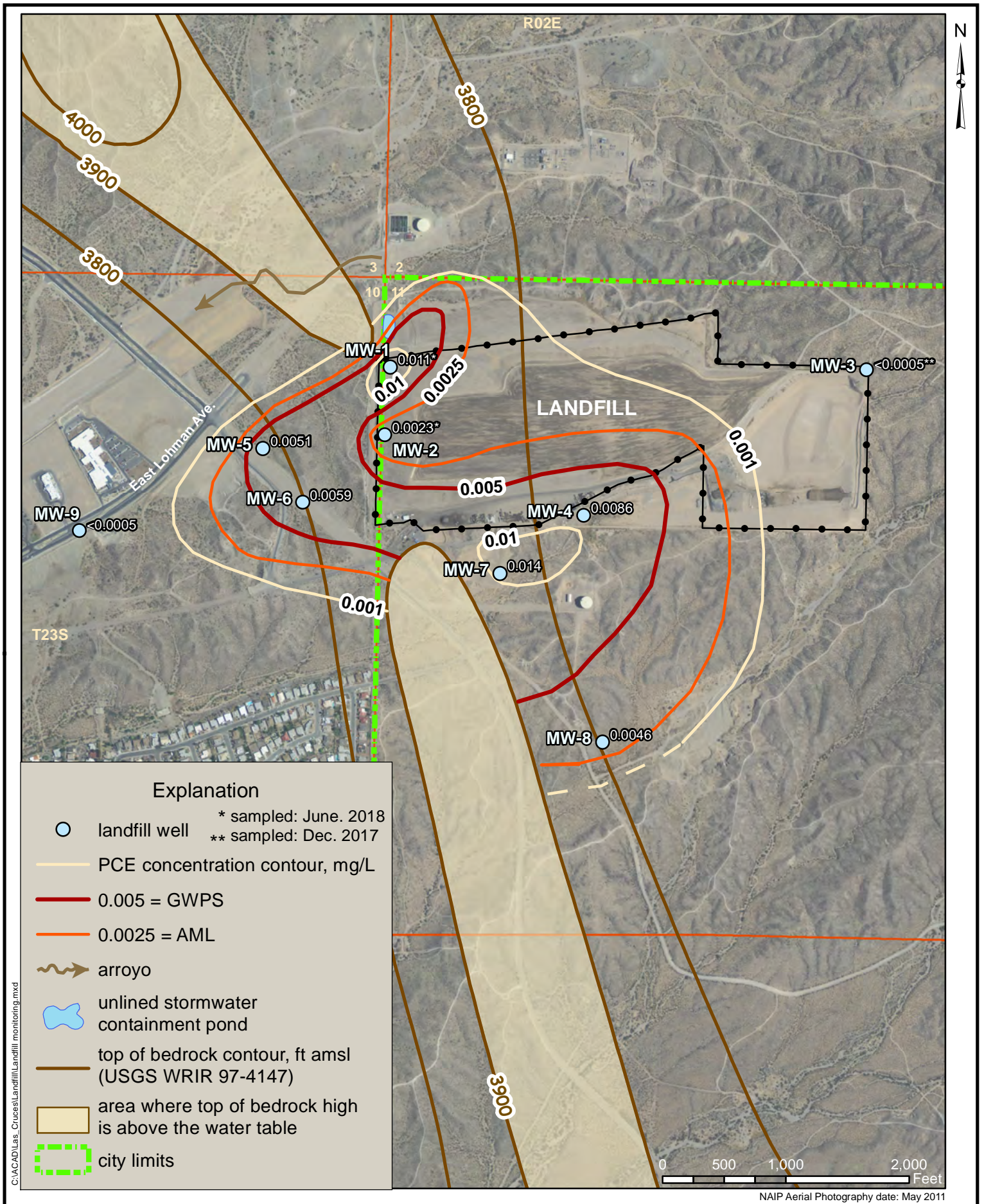


Figure 6. Aerial photograph showing concentration contours of PCE in groundwater, December 2018 unless otherwise noted, Las Cruces Foothills Landfill, New Mexico.

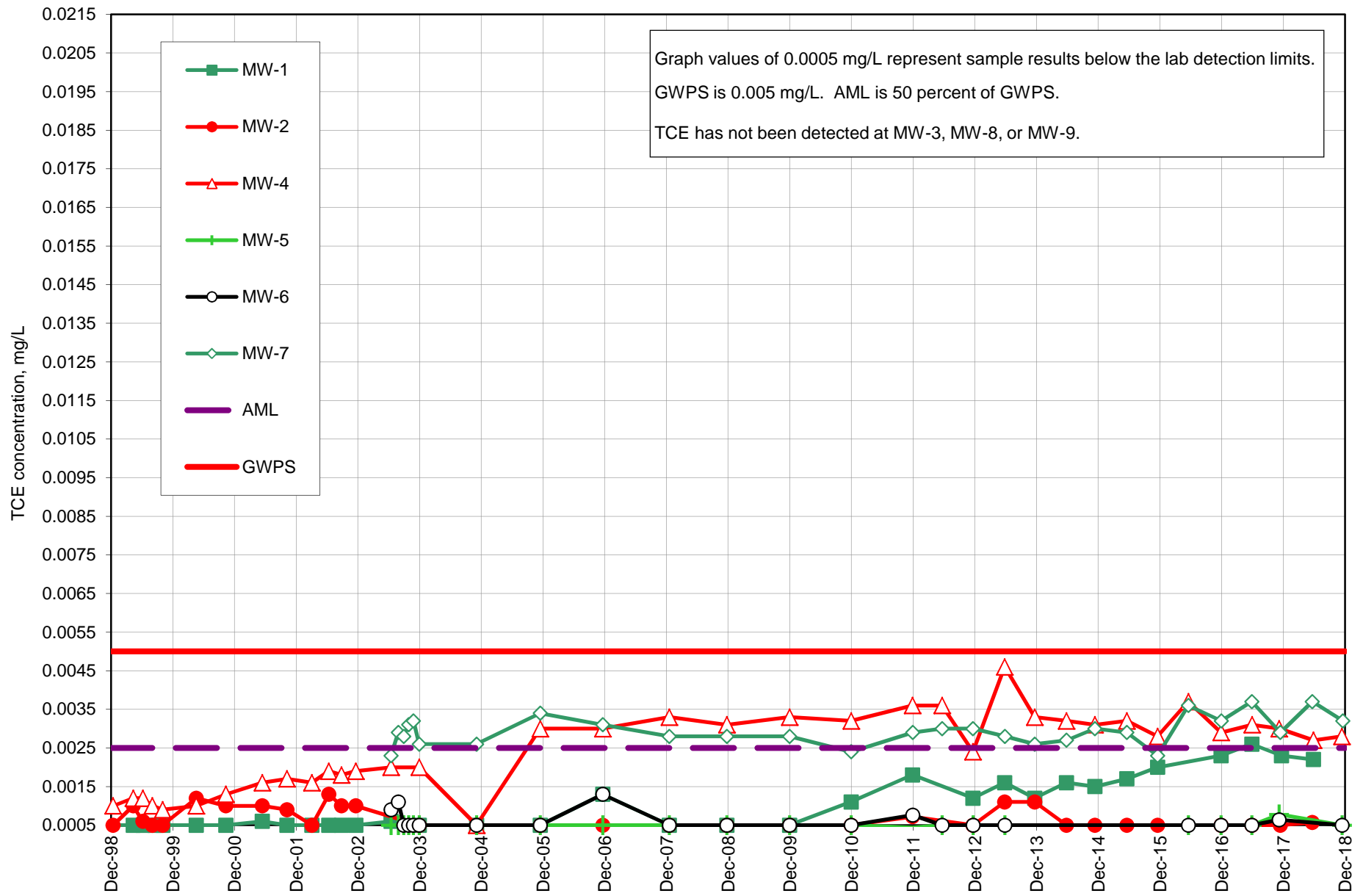


Figure 7. Graph showing trichloroethene (TCE) concentrations versus time for monitor wells at which TCE has been detected, Las Cruces Foothills Landfill, New Mexico.

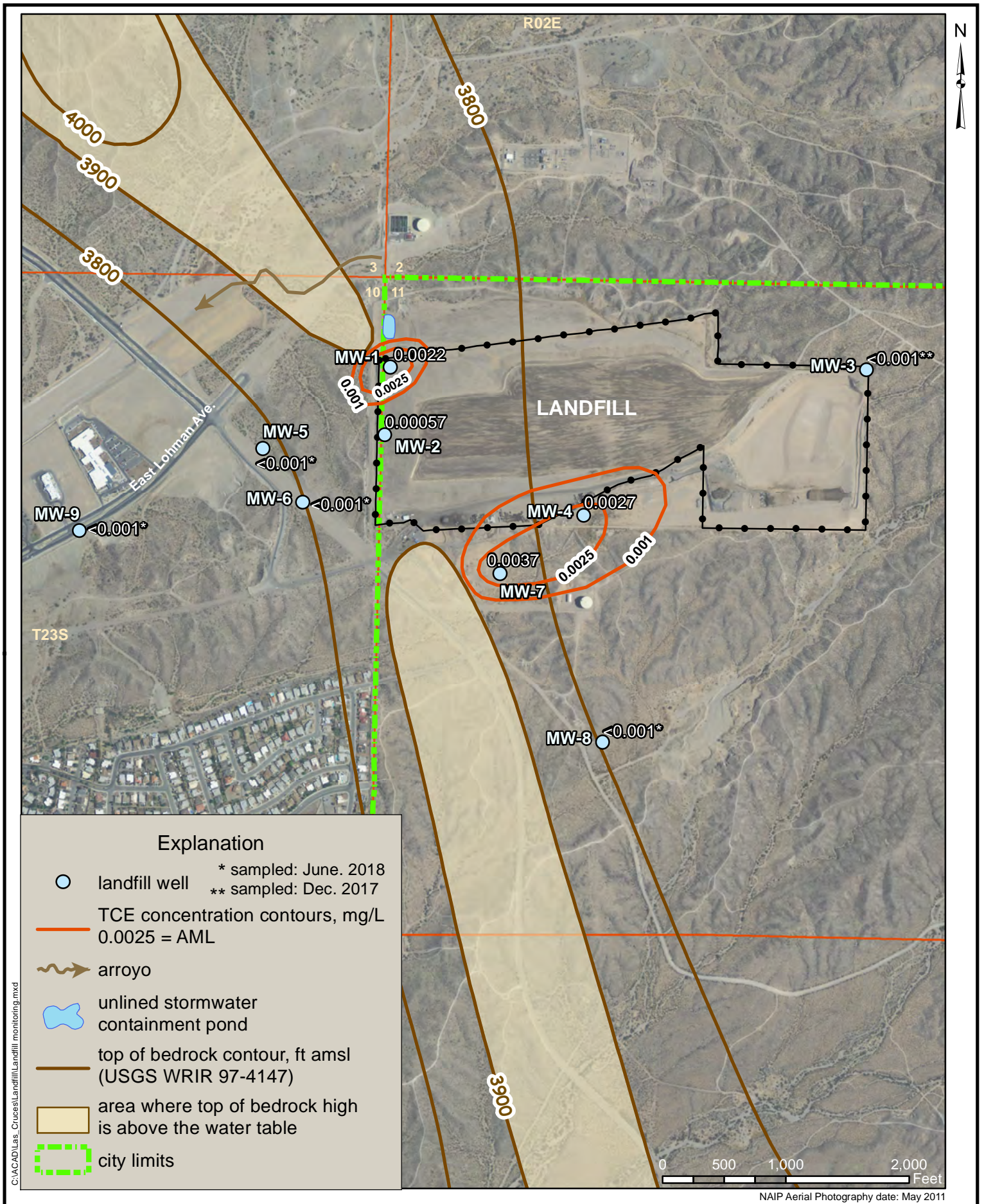


Figure 8. Aerial photograph showing concentration contours of TCE in groundwater, June 2018 unless otherwise noted, Las Cruces Foothills Landfill, New Mexico.

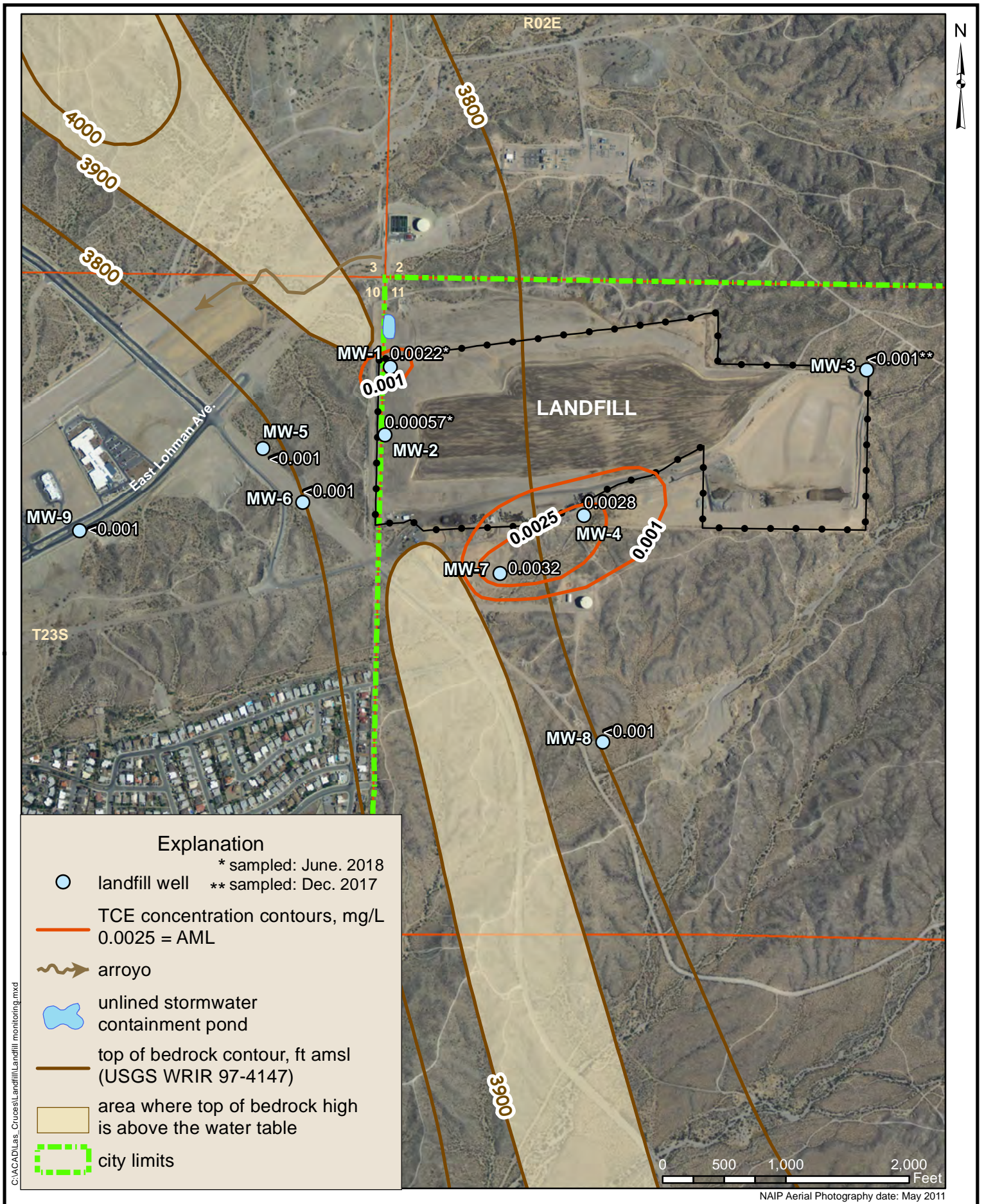


Figure 9. Aerial photograph showing concentration contours of TCE in groundwater, December 2018 unless otherwise noted, Las Cruces Foothills Landfill, New Mexico.

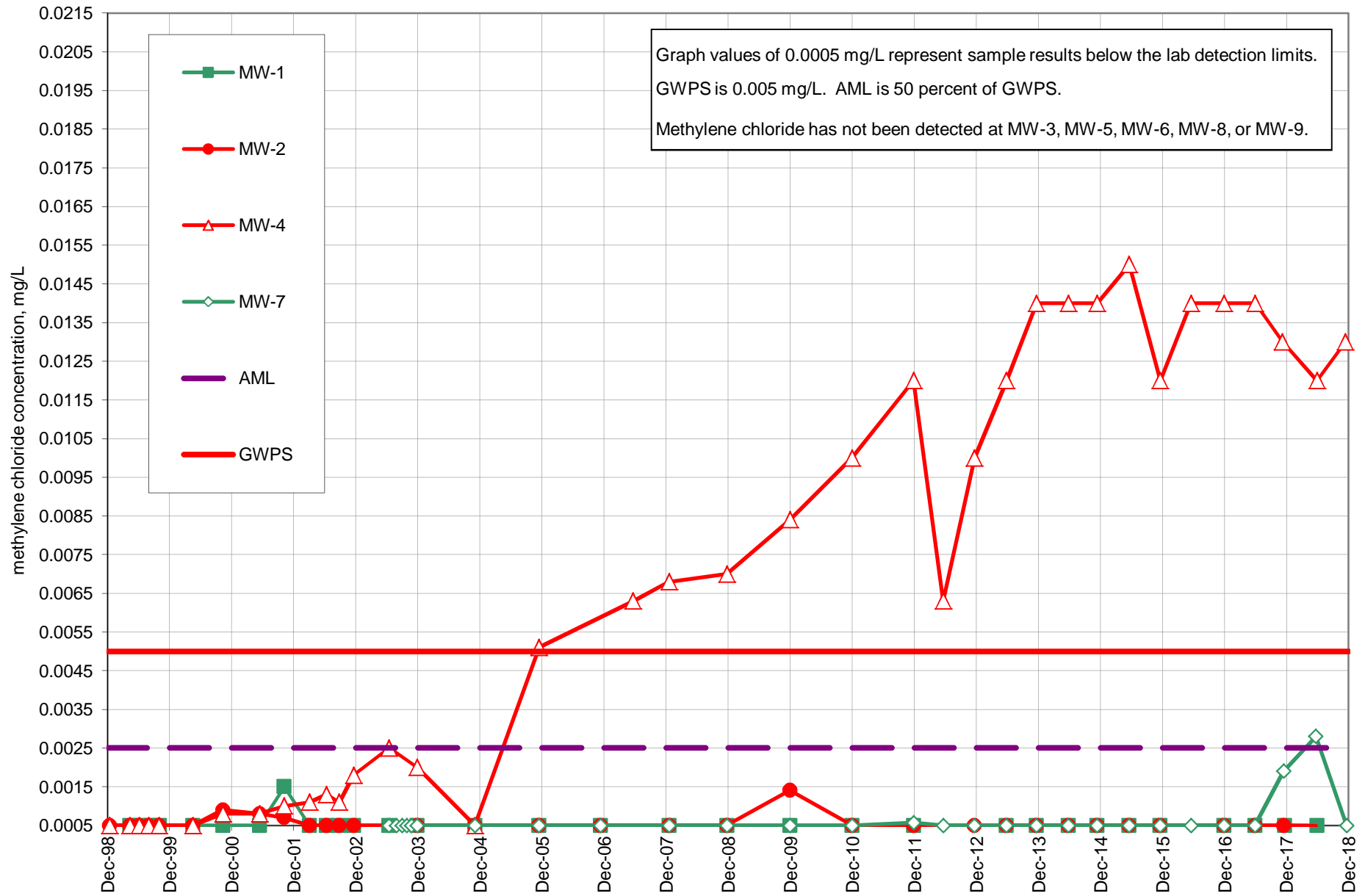


Figure 10. Graph showing methylene chloride concentrations versus time for monitor wells at which methylene chloride has been detected, Las Cruces Foothills Landfill, New Mexico.

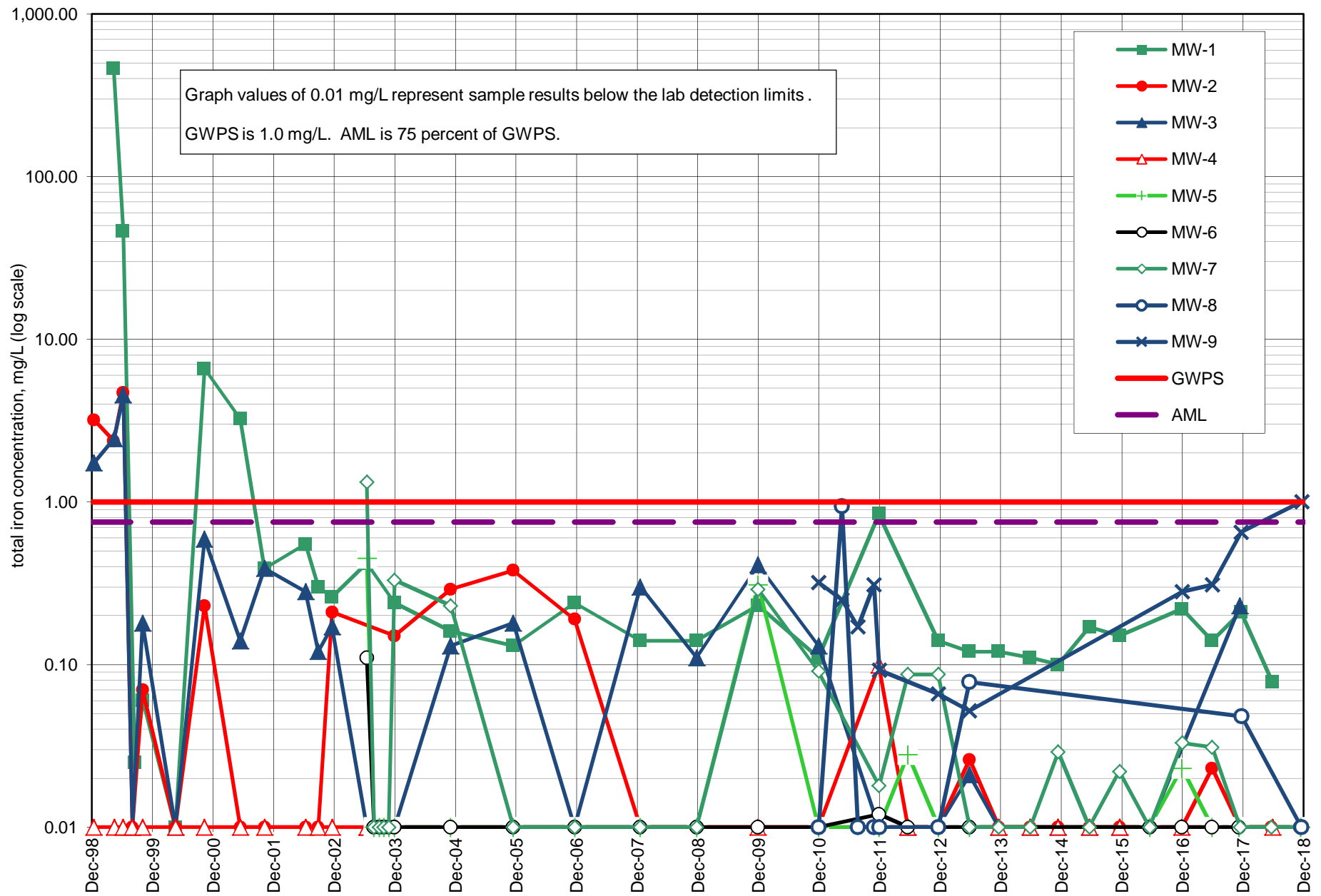


Figure 12. Graph showing total iron concentrations versus time for monitor wells MW-1 through MW-9, Las Cruces Foothills Landfill, Las Cruces, New Mexico.

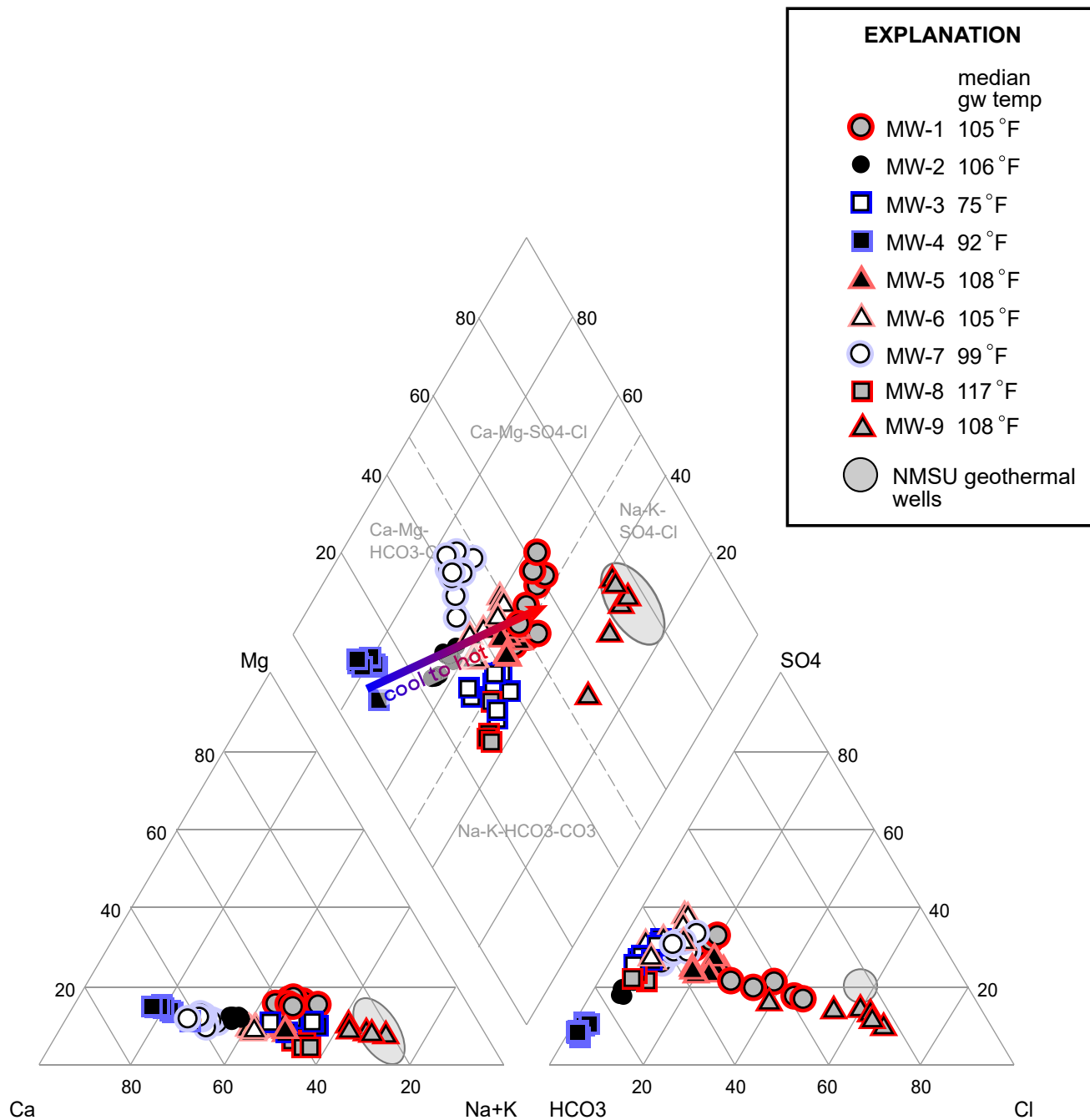


Figure 13. Piper diagram showing hydrogeochemical classification of groundwater sampled between December 2005 and 2018 at Las Cruces Foothills Landfill monitor wells, and geothermal groundwater in the area, Las Cruces, New Mexico.

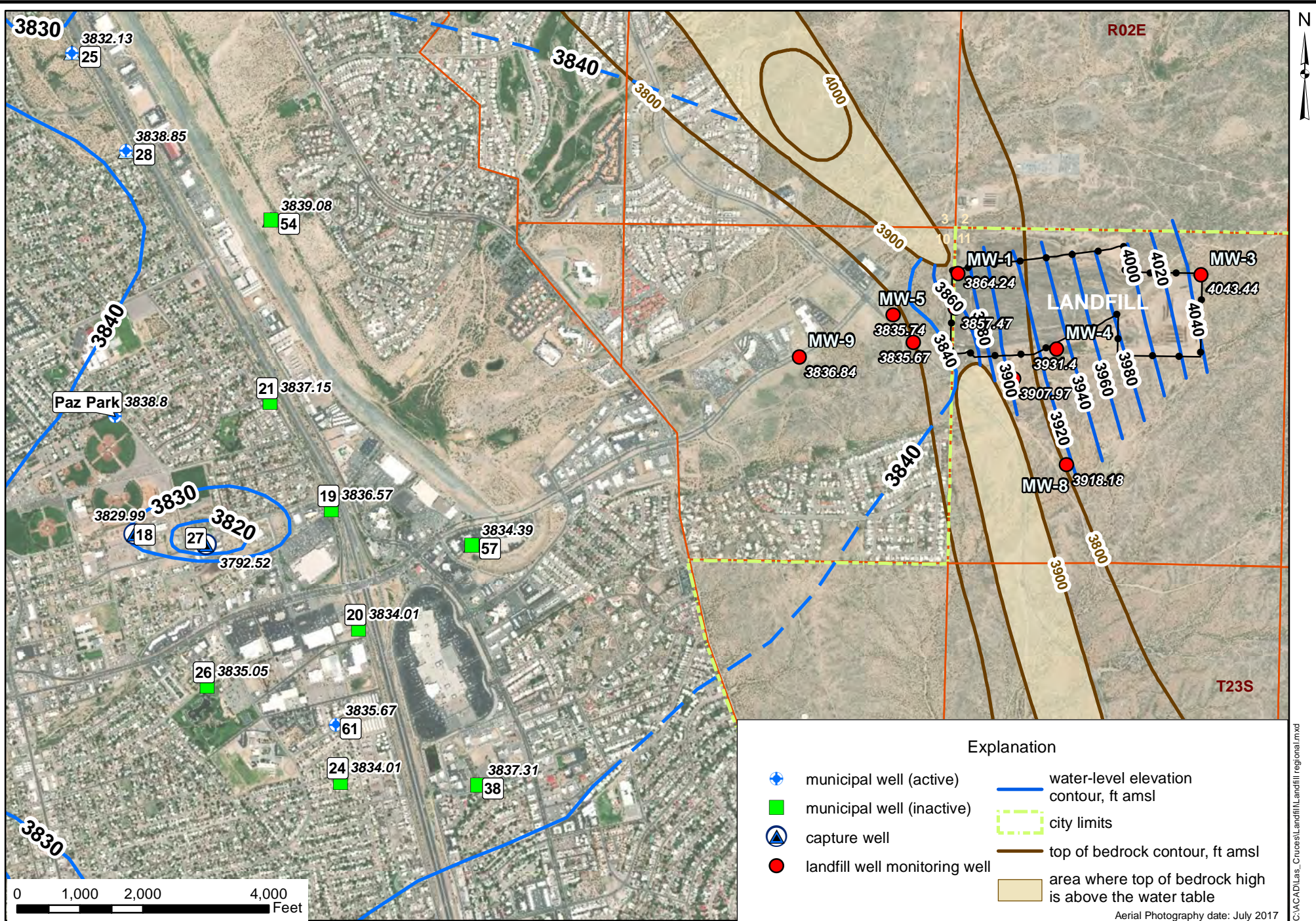
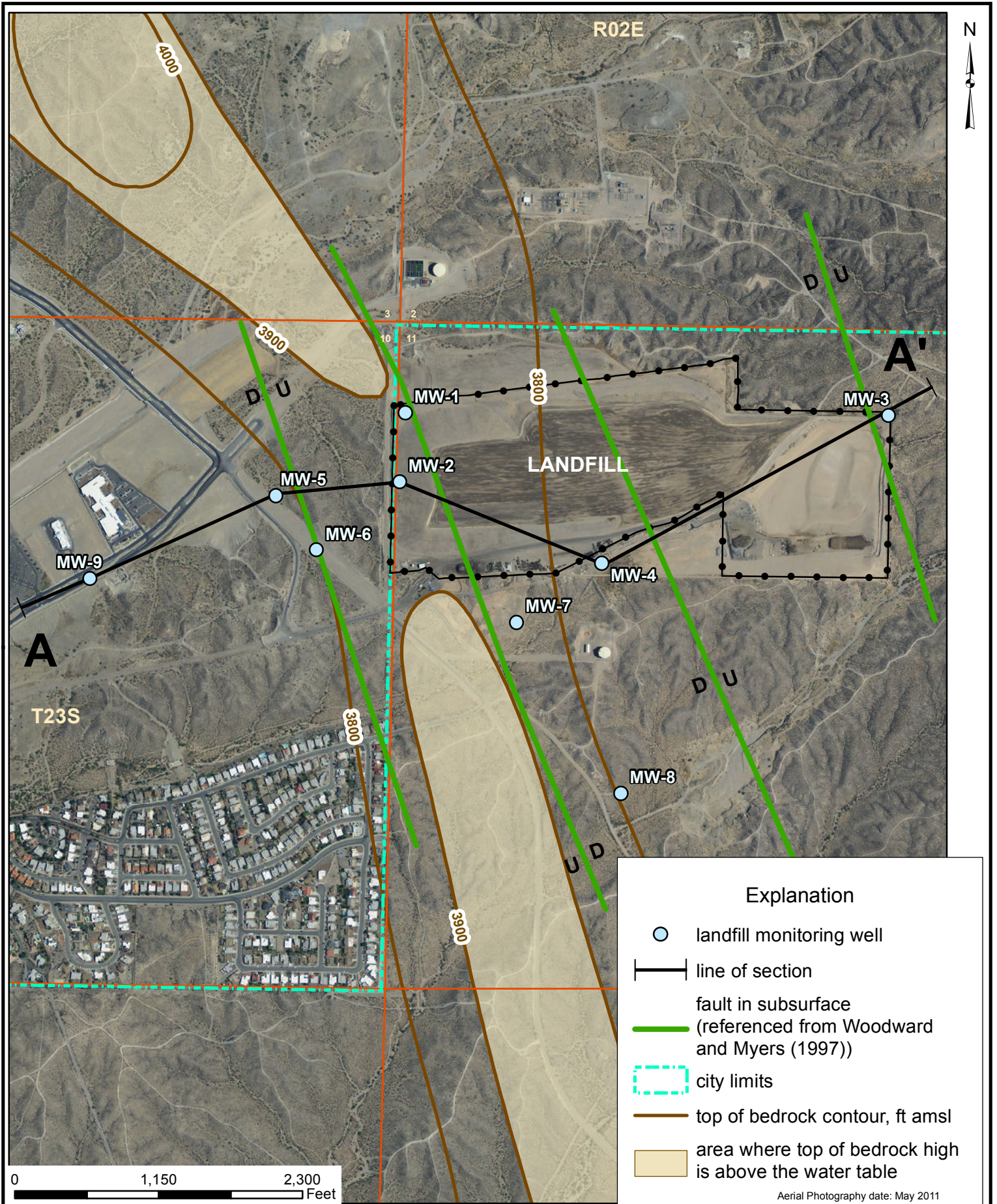


Figure 14. Aerial photograph showing Las Cruces Foothills Landfill monitor wells and groundwater elevation contours in December 2018.



Explanation	
	landfill monitoring well
	line of section
	fault in subsurface (referenced from Woodward and Myers (1997))
	city limits
	top of bedrock contour, ft amsl
	area where top of bedrock high is above the water table

Aerial Photography date: May 2011

Figure 15. Aerial photograph showing locations of existing monitor wells, faults in the subsurface, line of schematic geologic cross-section A-A', and bedrock high, Las Cruces Foothills Landfill, New Mexico.

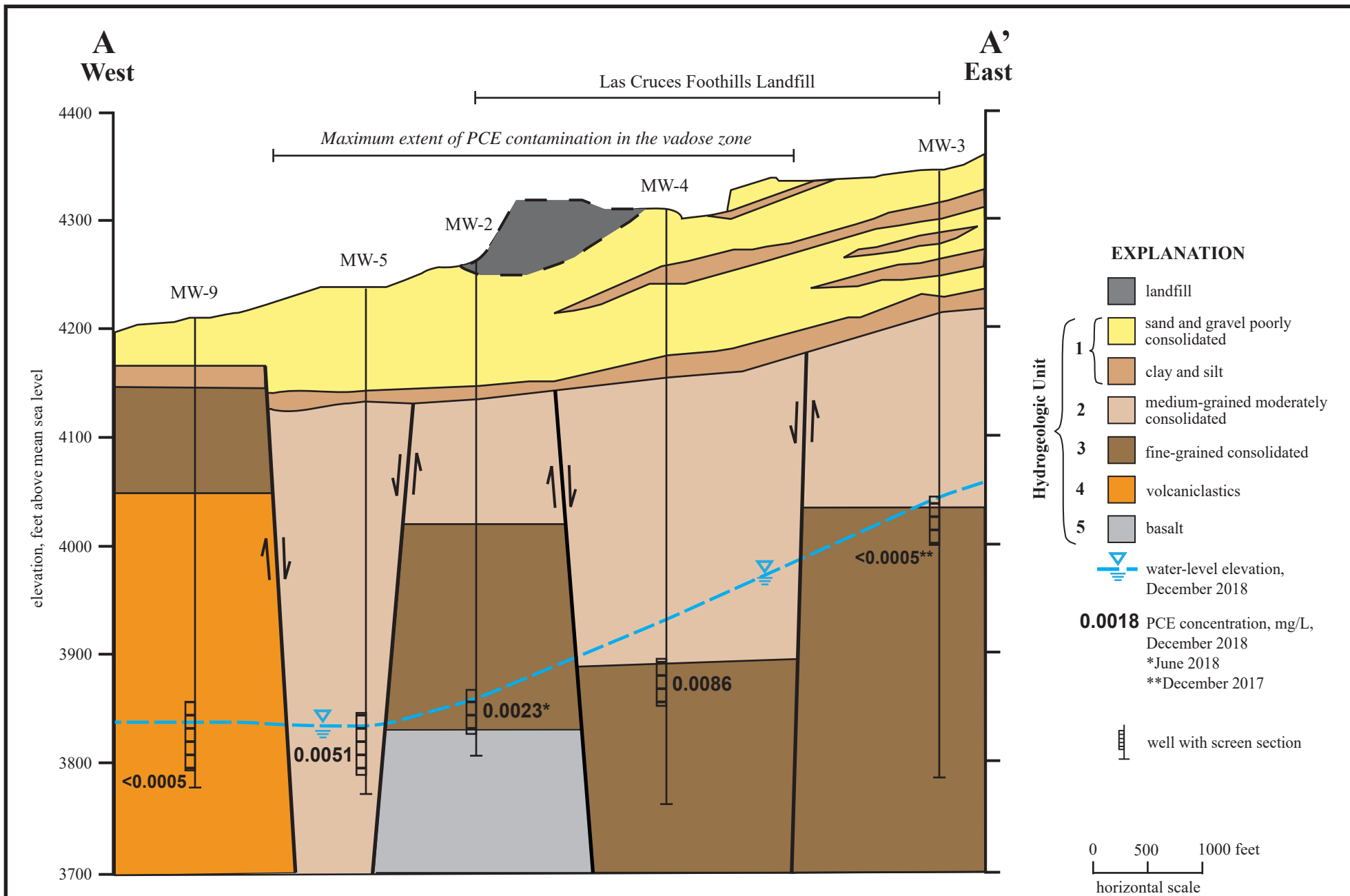


Figure 16. West to east hydrogeologic cross-section, Las Cruces Foothills Landfill, New Mexico.

APPENDICES

Appendix A.

**Summary of water-level measurements from monitor wells MW-1 through MW-9,
Las Cruces Foothills Landfill, Las Cruces, New Mexico**

**Summary of water-level measurements from monitor wells MW-1 through MW-9,
Las Cruces Foothills Landfill, Las Cruces, New Mexico**

well	date	top of casing elevation (ft amsl)	depth to water (ft bmp)	water-level elevation (ft amsl)
MW-1	01/11/99	4,262.17	394.00	3,868.17
MW-1	04/01/99	4,262.17	387.00	3,875.17
MW-1	05/06/99	4,262.17	389.40	3,872.77
MW-1	07/07/99	4,262.17	387.76	3,874.41
MW-1	09/15/99	4,262.17	388.46	3,873.71
MW-1	11/03/99	4,262.17	391.76	3,870.41
MW-1	05/18/00	4,262.17	389.63	3,872.54
MW-1	06/13/01	4,261.61	388.00	3,873.61
MW-1	10/29/01	4,261.61	392.60	3,869.01
MW-1	11/06/01	4,261.61	392.47	3,869.14
MW-1	03/25/02	4,261.61	389.60	3,872.01
MW-1	04/03/02	4,261.61	392.74	3,868.87
MW-1	07/12/02	4,261.61	392.48	3,869.13
MW-1	09/25/02	4,261.61	394.54	3,867.07
MW-1	12/18/02	4,261.61	394.75	3,866.86
MW-1	07/15/03	4,261.61	396.09	3,865.52
MW-1	12/29/03	4,261.61	396.68	3,864.93
MW-1	12/2/04	4,261.61	397.23	3,864.38
MW-1	12/14/05	4,261.61	396.44	3,865.17
MW-1	12/12/06	4,261.61	395.95	3,865.66
MW-1	01/11/08	4,261.61	393.1	3,868.51
MW-1	12/23/08	4,261.61	393.53	3,870.08
MW-1	12/29/09	4,261.61	391.43	3,870.18
MW-1	12/29/10	4,261.61	385.60	3,876.01
MW-1	12/27/11	4,261.61	387.54	3,874.07
MW-1	12/12/12	4,261.61	389.58	3,872.03
MW-1	6/18/13	4,261.61	394.20	3,867.41
MW-1	12/12/13	4,261.61	395.24	3,866.37
MW-1	6/19/14	4,261.61	392.50	3,869.11
MW-1	12/11/14	4,261.61	393.45	3,868.16
MW-1	6/18/15	4,261.61	395.45	3,866.16
MW-1	12/11/15	4,261.61	396.25	3,865.36
MW-1	6/9/16	4,261.61	395.50	3,866.11
MW-1	12/20/16	4,261.61	396.35	3,865.26
MW-1	6/21/17	4,261.61	394.54	3,867.07
MW-1	12/11/17	4,261.61	396.13	3,865.48
MW-1	6/21/18	4,261.61	395.95	3,865.66
MW-1	12/20/18	4,261.61	397.37	3,864.24

¹ measurement made from ground level
ft bmp - feet below measuring point

ft amsl - feet above mean sea level

**Summary of water-level measurements from monitor wells MW-1 through MW-9,
Las Cruces Foothills Landfill, Las Cruces, New Mexico (continued)**

well	date	top of casing elevation (ft amsl)	depth to water (ft bmp)	water-level elevation (ft amsl)
MW-2	01/11/99	4,265.70	401.02	3,864.68
MW-2	04/01/99	4,265.70	403.00	3,862.70
MW-2	05/06/99	4,265.70	402.90	3,862.80
MW-2	07/07/99	4,265.70	413.00	3,852.70
MW-2	09/15/99	4,265.70	413.50	3,852.20
MW-2	11/03/99	4,263.70 ¹	401.01	3,862.69 ¹
MW-2	05/18/00	4,263.70 ¹	406.50	3,857.20 ¹
MW-2	11/09/00	4,263.70 ¹	403.90	3,859.80 ¹
MW-2	06/13/01	4,265.36	407.52	3,857.84
MW-2	10/29/01	4,265.36	410.80	3,854.56
MW-2	11/02/01	4,265.36	411.40	3,853.96
MW-2	11/06/01	4,265.36	411.66	3,853.70
MW-2	03/25/02	4,265.36	407.3	3,858.06
MW-2	04/03/02	4,265.36	409.16	3,856.20
MW-2	07/12/02	4,265.36	407.43	3,857.93
MW-2	09/25/02	4,265.36	408.82	3,856.54
MW-2	12/18/02	4,265.36	408.67	3,856.69
MW-2	07/15/03	4,265.36	407.03	3,858.33
MW-2	12/29/03	4,265.36	406.64	3,858.72
MW-2	12/2/04	4,265.36	406.60	3,858.76
MW-2	12/14/05	4,265.36	406.52	3,858.84
MW-2	12/12/06	4,265.36	407.25	3,858.11
MW-2	01/11/08	4,265.36	406.0	3,859.36
MW-2	12/23/08	4,265.36	403.65	3,861.71
MW-2	12/29/09	4,265.36	403.54	3,861.82
MW-2	12/29/10	4,265.36	398.53	3,866.83
MW-2	12/27/11	4,265.36	399.33	3,866.03
MW-2	12/12/12	4,265.36	400.84	3,864.52
MW-2	6/19/13	4,265.36	405.60	3,859.76
MW-2	12/12/13	4,265.36	406.50	3,858.86
MW-2	6/19/14	4,265.36	405.55	3,859.81
MW-2	12/11/14	4,265.36	403.25	3,862.11
MW-2	6/18/15	4,265.36	405.58	3,859.78
MW-2	12/11/15	4,265.36	407.70	3,857.66
MW-2	6/9/16	4,265.36	405.95	3,859.41
MW-2	12/20/16	4,265.36	407.28	3,858.08
MW-2	6/21/17	4,265.36	406.08	3,859.28
MW-2	12/12/17	4,265.36	407.58	3,857.78
MW-2	6/20/18	4,265.36	406.90	3,858.46
MW-2	12/20/18	4,265.36	407.89	3,857.47

ft amsl - feet above mean sea level

ft bmp - feet below measuring point

**Summary of water-level measurements from monitor wells MW-1 through MW-9,
Las Cruces Foothills Landfill, Las Cruces, New Mexico (continued)**

well	date	top of casing elevation (ft amsl)	depth to water (ft bmp)	water-level elevation (ft amsl)
MW-3	01/11/99	4,356.52	308.50	4,048.02
MW-3	04/01/99	4,356.52	301.50	4,055.02
MW-3	05/06/99	4,356.52	306.60	4,049.92
MW-3	07/07/99	4,356.52	304.10	4,052.42
MW-3	09/15/99	4,356.52	306.80	4,049.72
MW-3	11/03/99	4,356.52	305.50	4,051.02
MW-3	05/18/00	4,356.52	300.65	4,055.87
MW-3	11/09/00	4,356.52	305.00	4,051.52
MW-3	06/13/01	4,356.06	306.90	4,049.16
MW-3	10/29/01	4,356.06	307.80	4,048.26
MW-3	11/02/01	4,356.06	307.70	4,048.36
MW-3	11/06/01	4,356.06	309.40	4,046.66
MW-3	03/25/02	4,356.06	306.30	4,049.76
MW-3	04/03/02	4,356.06	307.80	4,048.26
MW-3	07/12/02	4,356.06	307.53	4,048.53
MW-3	09/25/02	4,356.06	308.00	4,048.06
MW-3	12/18/02	4,356.06	307.87	4,048.19
MW-3	07/15/03	4,356.06	307.98	4,048.08
MW-3	12/29/03	4,356.06	307.92	4,048.14
MW-3	12/2/04	4,356.06	307.99	4,048.07
MW-3	12/14/05	4,356.06	308.17	4,047.89
MW-3	12/12/06	4,356.06	311.29	4,044.77
MW-3	01/11/08	4,356.06	309.0	4,047.06
MW-3	12/23/08	4,356.06	309.20	4,046.86
MW-3	12/29/09	4,356.06	308.60	4,047.46
MW-3	12/29/10	4,356.06	310.54	4,045.52
MW-3	05/12/11	4,356.06	308.06	4,048.00
MW-3	12/20/11	4,356.06	308.73	4,047.33
MW-3	6/12/12	4,356.06	307.21	4,048.85
MW-3	12/12/12	4,356.06	307.75	4,048.31
MW-3	6/18/13	4,356.06	308.65	4,047.41
MW-3	12/12/13	4,356.06	306.00	4,050.06
MW-3	6/19/14	4,356.06	306.40	4,049.66
MW-3	12/4/14	4,356.06	308.81	4,047.25
MW-3	6/18/15	4,356.06	309.00	4,047.06
MW-3	12/11/15	4,356.06	309.30	4,046.76
MW-3	6/9/16	4,356.06	309.80	4,046.26
MW-3	12/20/16	4,356.06	310.72	4,045.34
MW-3	8/2/17	4,356.06	312.93	4,043.13
MW-3	12/7/17	4,356.06	312.91	4,043.15
MW-3	6/27/18	4,356.06	311.35	4,044.71
MW-3	12/18/18	4,356.06	312.62	4,043.44

ft amsl - feet above mean sea level

ft bmp - feet below measuring point

**Summary of water-level measurements from monitor wells MW-1 through MW-9,
Las Cruces Foothills Landfill, Las Cruces, New Mexico (continued)**

well	date	top of casing elevation (ft amsl)	depth to water (ft bmp)	water-level elevation (ft amsl)
MW-4	01/11/99	4,313.54	363.45	3,950.09
MW-4	04/01/99	4,313.54	366.00	3,947.54
MW-4	05/06/99	4,313.54	368.05	3,945.49
MW-4	07/07/99	4,313.54	366.18	3,947.36
MW-4	09/15/99	4,313.54	365.76	3,947.78
MW-4	11/03/99	4,313.54	365.59	3,947.95
MW-4	05/18/00	4,313.54	368.02	3,945.52
MW-4	11/09/00	4,313.54	388.56	3,924.98
MW-4	06/13/01	4,313.20	368.41	3,944.79
MW-4	10/29/01	4,313.20	369.90	3,943.30
MW-4	11/06/01	4,313.20	370.00	3,943.20
MW-4	03/25/02	4,313.20	369.00	3,944.20
MW-4	04/03/02	4,313.20	370.68	3,942.52
MW-4	07/12/02	4,313.20	371.19	3,942.01
MW-4	09/25/02	4,313.20	371.95	3,941.25
MW-4	12/18/02	4,313.20	372.40	3,940.80
MW-4	07/15/03	4,313.20	373.57	3,939.63
MW-4	12/29/03	4,313.20	374.20	3,939.00
MW-4	12/2/04	4,313.20	376.03	3,937.17
MW-4	12/14/05	4,313.20	376.86	3,936.34
MW-4	12/12/06	4,313.20	377.7	3,935.50
MW-4	01/11/08	4,313.20	378.2	3,935.00
MW-4	12/23/08	4,313.20	376.95	3,936.25
MW-4	12/29/09	4,313.20	378.35	3,934.85
MW-4	12/29/10	4,313.20	374.86	3,938.34
MW-4	12/27/11	4,313.20	374.88	3,938.32
MW-4	6/12/12	4,313.20	375.83	3,937.37
MW-4	12/12/12	4,313.20	376.08	3,937.12
MW-4	6/19/13	4,313.20	380.30	3,932.90
MW-4	12/12/13	4,313.20	381.00	3,932.20
MW-4	6/19/14	4,313.20	381.30	3,931.90
MW-4	12/4/14	4,313.20	381.27	3,931.93
MW-4	6/18/15	4,313.20	381.30	3,931.90
MW-4	12/11/15	4,313.20	381.50	3,931.70
MW-4	6/9/16	4,313.20	381.30	3,931.90
MW-4	12/20/16	4,313.20	381.34	3,931.86
MW-4	6/22/17	4,313.20	381.46	3,931.74
MW-4	12/6/17	4,313.20	381.66	3,931.54
MW-4	6/27/18	4,313.20	381.75	3,931.45
MW-4	12/12/18	4,313.20	381.80	3,931.40

ft amsl - feet above mean sea level

ft bmp - feet below measuring point

**Summary of water-level measurements from monitor wells MW-1 through MW-9,
Las Cruces Foothills Landfill, Las Cruces, New Mexico (continued)**

well	date	top of casing elevation (ft amsl)	depth to water (ft bmp)	water-level elevation (ft amsl)
MW-5	07/15/03	4,235.55	404.98	3,830.57
MW-5	08/27/03	4,235.55	405.26	3,830.29
MW-5	09/29/03	4,235.55	404.98	3,830.57
MW-5	10/27/03	4,235.55	404.86	3,830.69
MW-5	11/25/03	4,235.55	404.71	3,830.84
MW-5	12/29/03	4,235.55	404.54	3,831.01
MW-5	12/2/04	4,235.55	404.26	3,831.29
MW-5	12/14/05	4,235.55	403.59	3,831.96
MW-5	12/12/06	4,235.55	403.06	3,832.49
MW-5	01/11/08	4,235.55	400.6	3,835.0
MW-5	12/23/08	4,235.55	397.93	3,837.62
MW-5	12/29/09	4,235.55	397.17	3,838.38
MW-5	12/29/10	4,235.55	391.47	3,844.08
MW-5	12/28/11	4,235.55	391.83	3,843.72
MW-5	6/12/12	4,235.55	392.08	3,843.47
MW-5	12/13/12	4,235.55	394.44	3,841.11
MW-5	6/19/13	4,235.55	394.40	3,841.15
MW-5	8/6/14	4,235.55	394.45	3,841.10
MW-5	12/11/14	4,235.55	398.18	3,837.37
MW-5	7/23/15	4,235.55	397.59	3,837.96
MW-5	2/12/16	4,235.55	398.46	3,837.09
MW-5	6/9/16	4,235.55	397.70	3,837.85
MW-5	12/20/16	4,235.55	398.83	3,836.72
MW-5	6/21/17	4,235.55	398.10	3,837.45
MW-5	12/6/17	4,235.55	399.35	3,836.20
MW-5	8/3/18	4,235.55	398.10	3,837.45
MW-5	12/13/18	4,235.55	399.81	3,835.74
MW-6	07/15/03	4,258.32	426.29	3,832.03
MW-6	08/27/03	4,258.32	426.85	3,831.47
MW-6	09/29/03	4,258.32	426.85	3,831.47
MW-6	10/27/03	4,258.32	426.60	3,831.72
MW-6	11/25/03	4,258.32	426.36	3,831.96
MW-6	12/29/03	4,258.32	426.23	3,832.09
MW-6	12/2/04	4,258.32	425.80	3,832.52
MW-6	12/14/05	4,258.32	425.34	3,832.98
MW-6	12/12/06	4,258.32	424.86	3,833.46
MW-6	01/11/08	4,258.32	422.40	3,835.90
MW-6	12/23/08	4,258.32	419.65	3,838.67
MW-6	12/29/09	4,258.32	411.25	3,847.07
MW-6	12/29/10	4,258.32	413.95	3,844.37
MW-6	12/28/11	4,258.32	413.79	3,844.53

ft amsl - feet above mean sea level

ft bmp - feet below measuring point

**Summary of water-level measurements from monitor wells MW-1 through MW-9,
Las Cruces Foothills Landfill, Las Cruces, New Mexico (concluded)**

well	date	top of casing elevation (ft amsl)	depth to water (ft bmp)	water-level elevation (ft amsl)
MW-6	6/12/12	4,258.32	413.25	3,845.07
MW-6	12/13/12	4,258.32	415.69	3,842.63
MW-6	6/18/13	4,258.32	420.10	3,838.22
MW-6	8/6/14	4,258.32	421.47	3,836.85
MW-6	12/11/14	4,258.32	420.80	3,837.52
MW-6	7/23/15	4,258.32	420.55	3,837.77
MW-6	2/12/16	4,258.32	421.24	3,837.08
MW-6	6/9/16	4,258.32	421.20	3,837.12
MW-6	12/21/16	4,258.32	421.72	3,836.60
MW-6	6/21/17	4,258.32	421.29	3,837.03
MW-6	12/6/17	4,258.32	421.72	3,836.60
MW-6	8/3/18	4,258.32	422.50	3,835.82
MW-6	12/13/18	4,258.32	422.65	3,835.67
MW-7	7/15/03	4,292.86	378.29	3,914.57
MW-7	8/27/03	4,292.86	378.72	3,914.14
MW-7	9/29/03	4,292.86	378.76	3,914.10
MW-7	10/27/03	4,292.86	378.73	3,914.13
MW-7	11/25/03	4,292.86	378.70	3,914.16
MW-7	12/29/03	4,292.86	379.03	3,913.83
MW-7	12/2/04	4,292.86	380.25	3,912.61
MW-7	12/14/05	4,292.86	381.31	3,911.55
MW-7	12/12/06	4,292.86	382.04	3,910.82
MW-7	1/11/08	4,292.86	382.2	3,910.7
MW-7	12/23/08	4,292.86	380.58	3,912.28
MW-7	12/29/09	4,292.86	380.95	3,911.91
MW-7	12/29/10	4,292.86	378.28	3,914.58
MW-7	12/28/11	4,292.86	377.67	3,915.19
MW-7	6/12/12	4,292.86	378.79	3,914.07
MW-7	12/13/12	4,292.86	379.04	3,913.82
MW-7	6/19/13	4,292.86	383.40	3,909.46
MW-7	12/12/13	4,292.86	384.70	3,908.16
MW-7	6/19/14	4,292.86	384.10	3,908.76
MW-7	12/11/14	4,292.86	384.15	3,908.71
MW-7	6/18/15	4,292.86	384.10	3,908.76
MW-7	12/11/15	4,292.86	384.05	3,908.81
MW-7	6/9/16	4,292.86	384.10	3,908.76
MW-7	12/21/16	4,292.86	384.18	3,908.68
MW-7	6/21/17	4,292.86	384.17	3,908.69
MW-7	12/13/17	4,292.86	384.40	3,908.46
MW-7	6/20/18	4,292.86	384.31	3,908.55
MW-7	12/18/18	4,292.86	384.89	3,907.97

ft amsl - feet above mean sea level

ft bmp - feet below measuring point

**Summary of water-level measurements from monitor wells MW-1 through MW-9,
Las Cruces Foothills Landfill, Las Cruces, New Mexico (concluded)**

well	date	top of casing elevation (ft amsl)	depth to water (ft bmp)	water-level elevation (ft amsl)
MW-8	12/29/10	4,286.00	360.07	3,925.93
MW-8	05/18/11	4,286.00	360.32	3,925.68
MW-8	08/23/11	4,286.00	360.85	3,925.15
MW-8	11/28/11	4,286.00	361.29	3,924.71
MW-8	12/29/11	4,286.00	360.67	3,925.33
MW-8	12/13/12	4,286.00	362.95	3,923.05
MW-8	6/18/13	4,286.00	361.33	3,924.67
MW-8	8/6/14	4,286.00	359.76	3,926.24
MW-8	12/11/14	4,286.00	367.85	3,918.15
MW-8	7/23/15	4,286.00	367.53	3,918.47
MW-8	2/12/16	4,286.00	367.71	3,918.29
MW-8	6/9/16	4,286.00	367.50	3,918.50
MW-8	12/21/16	4,286.00	367.39	3,918.61
MW-8	8/2/17	4,286.00	367.03	3,918.97
MW-8	12/21/17	4,286.00	367.16	3,918.84
MW-8	8/3/18	4,286.00	367.76	3,918.24
MW-8	12/18/18	4,286.00	367.82	3,918.18
MW-9	12/29/10	4,212.58	367.72	3,844.86
MW-9	05/18/11	4,212.58	367.65	3,844.93
MW-9	08/23/11	4,212.58	367.97	3,844.61
MW-9	11/28/11	4,212.58	368.38	3,844.20
MW-9	12/29/11	4,212.58	367.33	3,845.25
MW-9	12/20/12	4,212.58	369.73	3,842.85
MW-9	6/26/13	4,212.58	373.70	3,838.88
MW-9	8/6/14	4,212.58	374.03	3,838.55
MW-9	12/11/14	4,212.58	378.85	3,833.73
MW-9	7/23/15	4,212.58	369.75	3,842.83
MW-9	2/12/16	4,212.58	367.76	3,844.82
MW-9	6/9/16	4,212.58	374.70	3,837.88
MW-9	12/21/16	4,212.58	374.85	3,837.73
MW-9	6/22/17	4,212.58	374.68	3,837.90
MW-9	12/7/17	4,212.58	375.34	3,837.24
MW-9	8/3/18	4,212.58	374.99	3,837.59
MW-9	12/20/18	4,212.58	375.74	3,836.84

ft amsl - feet above mean sea level

ft bmp - feet below measuring point

Appendix B.

**Baseline and background monitoring data for monitor wells MW-1 through MW-9
Las Cruces Foothills Landfill, Las Cruces, New Mexico**

MW-1

APPENDIX B

Las Cruces Foothills Landfill MW-1

Las Cruces Foothills Landfill monitoring well MW-1

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-1											
				3/1/90	5/19/92	7/20/92	12/7/93	6/7/96	5/11/99	7/7/99	9/15/99	11/3/99	5/18/00	11/9/00	6/13/01
Field Parameters															
water level elevation	-	ft amsl	-	x	x	x	x	x	3872.77	3874.41	3873.71	3870.41	3872.54	x	3873.61
conductivity	-	µS/cm	-	328	310	x	300	x	360	386	446	451	376	378	408
pH	-	pH units	6-9	7.67	7.57	7.36	7.92	x	7.91	7.12	6.64	6.55	7.56	7.90	6.74
temperature	-	deg F	-	130.0	119.0	128.0	108.0	113.0	117.0	124.0	113.8	116.5	118.6	116.1	116.2
Major Ions															
calcium	7440-70-2	mg/L	-	23.1	23.3	x	24.7	x	35.9	32.5	33.6	36.3	34.6	34	48.7
chloride	16887-00-6	mg/L	250	10.8	14.7	x	16.1	x	18.5	15.9	15.6	15.8	15.6	17.3	9.6
fluoride ¹	16984-48-8	mg/L	1.6	0.87	0.58	x	0.62	x	0.7	0.67	0.66	0.63	0.65	0.65	0.58
magnesium	7439-95-4	mg/L	-	5.1	4.9	x	5.7	x	5.9	6	6.6	7.1	7.1	7.0	5.8
potassium	7440-09-7	mg/L	-	1.5	1.4	x	1.6	x	1.5	2.8	2.3	2.1	2.8	2.5	1.6
sodium	82115-62-6	mg/L	-	42.7	26.8	x	31.9	x	30.2	30.2	28.5	30.4	32.6	31	29.8
sulfate	18785-72-3	mg/L	600	37	25.2	x	34.6	x	57	49	45	41	40	46	32
alkalinity	-	mg/L	-	127	95	x	96.5	x	100.5	101.4	106.4	114.7	108.5	108.0	146.4
bicarbonate alkalinity	71-52-3	mg/L	-	155	115.9	x	117.8	x	100.5	123.8	129.9	140	132.4	131.8	178.7
carbonate alkalinity	3812-32-6	mg/L	-	<1.0	<1.0	x	<1.0	x	<1.0	<1.0	<1.0	<1.0	<1.0	0.0	0.0
total dissolved solids	-	mg/L	1,000	207	170	x	213	x	190	252	242	234	241	186	236
Nitrogen Species															
ammonia as N	1331-21-6	mg/L	-	x	1.08	x	0.27	x	0.8	0.49	0.36	0.61	0.35	0.25	<0.01
Kjeldahl nitrogen	7727-37-9	mg/L	-	x	1.1	x	0.8	x	1.4	0.9	0.7	0.2	0.5	0.3	0.3
nitrate as N	14797-55-8	mg/L	10	x	1.21	x	3.22	x	3.6	4.2	4.8	4.8	4.6	4.9	1.72
nitrite	14797-65-0	mg/L	-	<0.01	1.21	x	3.22	x	3.6	0.23	<0.05	<0.05	0.12	<0.05	<0.05
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Metals															
aluminum	7429-90-5	mg/L	5.0	x	0.28	x	0.025	x	2.1	0.34	<0.05	<0.05	<0.05	0.1	<0.05
antimony ¹	7440-36-0	mg/L	0.006	x	x	x	x	x	<0.0004	0.001	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
arsenic ¹	7440-38-2	mg/L	0.01	0.0005	0.001	x	0.001	x	0.0135	0.004	0.000545	0.0009	0.0008	0.0017	0.0014
barium ¹	7440-39-3	mg/L	1.0	0.12	0.17	x	0.09	x	1.132	0.1644	0.0822	0.0651	0.0712	0.104	0.0919
beryllium ¹	7440-41-7	mg/L	0.004	x	x	x	x	x	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
boron	7440-42-8	mg/L	0.75	x	0.1	x	0.05	x	0.05	0.11	0.04	0.05	<0.01	0.05	0.01
cadmium ¹	7440-43-9	mg/L	0.005	<0.005	<0.005	x	<0.005	x	0.00013	0.0002	<0.0001	<0.0001	<0.0001	0.0003	<0.0001
chromium ¹	7440-47-3	mg/L	0.05	0.01	0.01	x	0.005	x	0.0096	0.0039	<0.0001	<0.0001	<0.0001	0.0011	0.0022
cobalt ¹	7440-48-4	mg/L	0.05	x	<0.01	x	<0.01	x	<0.01	0.1	<0.01	<0.01	<0.01	<0.01	<0.01
copper ¹	7440-50-8	mg/L	1.0	x	0.03	x	0.0015	x	1.692	0.1095	0.0015	<0.01	<0.04	0.0335	0.0067
iron	7439-89-6	mg/L	1.0	8.85	17.86	x	4.86	x	459.4	46.24	0.025	0.06	<0.01	6.58	3.23
lead ¹	7439-92-1	mg/L	0.05	0.012	0.021	x	0.006	x	0.292	0.0328	0.0002	0.0002	<0.0001	0.0071	0.0031
manganese	7439-96-5	mg/L	0.2	0.25	0.13	x	0.05	x	3.62	0.41	0.05	0.07	0.049	0.203	<0.005
mercury ¹	7439-97-6	mg/L	0.002	<0.0002	<0.0002	x	<0.0002	x	<0.0002	0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002
molybdenum	7439-98-7	mg/L	1.0	x	<0.05	x	<0.05	x	<0.05	<0.05	<0.05	<0.05	0.003	0.003	0.003
nickel ¹	7440-02-0	mg/L	0.2	x	<0.05	x	<0.05	x	0.0705	0.01422	0.0026	0.0019	0.00151	0.00395	0.00471
selenium ¹	7782-49-2	mg/L	0.05	<0.001	0.001	x	0.001	x	0.0024	<0.001	0.0013	<0.001	0.0026	0.0014	0.0026
silver ¹	7440-22-4	mg/L	0.05	<0.02	<0.02	x	<0.02	x	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
thallium ¹	7440-28-0	mg/L	0.002	x	x	x	x	x	0.00026	0.00006	0.00007	<0.00003	<0.00003	<0.00003	<0.00003
tin ¹	7440-31-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
uranium ¹	7440-61-1	mg/L	0.03	x	x	x	0.025	x	0.0086	0.00209	0.00142	0.00085	0.00074	<0.02	0.00046
vanadium ¹	7440-62-2	mg/L	-	x	x	x	x	x	<0.05	0.08	<0.05	<0.05	x	<0.05	<0.05
zinc ¹	7440-66-6	mg/L	10.0	x	0.86	x	0.14	x	12.92	1.71	0.01	0.005	x	0.21	<0.01
total organic carbon	-	mg/L	-	x	x	x	0.5	x	0.65	0.6	1.5	0.25	0.9	0.9	4.5
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
sulfide ¹	18496-25-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
cyanide ¹	57-12-5	mg/L	0.2	x	x	<0.02	<0.02	x	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	x	x	0.03	x	x	0.02	<0.02	<0.003	<0.003	<0.003	<0.003	0.015
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	x	x	<0.0005	<0.0005	x	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,1-Dichloropropene ¹	563-58-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	x	x	x	x	x	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	x	x	x	x	x	x	x	x	x	x	x	x
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,3-Dichloropropane ¹	142-28-9	mg/L	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2,2-Dichloropropane ¹	78-87-5	mg/L	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	x	x	<0.005	x	x	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
2-Chlorotoluene ¹	95-49-8	mg/L	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<		

APPENDIX B

Las Cruces Foothills Landfill MW-1

Las Cruces Foothills Landfill monitoring well MW-1

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-1											
				3/1/90	5/19/92	7/20/92	12/7/93	6/7/96	5/11/99	7/7/99	9/15/99	11/3/99	5/18/00	11/9/00	6/13/01
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Methyl iodide (Iodomethane) ¹	74-88-4	mg/L	-	x	x	x	x	x	x	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	x	x	<0.005	x	x	<0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Propionitrile ¹	107-12-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Propylbenzene ¹	103-65-1	mg/L	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Styrene ¹	100-42-5	mg/L	0.1	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	x	x	<0.005	x	x	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	x	x	0.0034	x	x	0.0051	0.0056	0.0025	0.003	0.0049	0.0066	0.0057
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	<0.005	x	x	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Toluene ¹	108-88-3	mg/L	0.75	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Total Xylenes (m&p and o) ¹	-	mg/L	0.62	x	x	<0.001	x	x	<0.001	0.0007	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	x	x	<0.002	x	x	x	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Trichloroethene (TCE) ¹	79-01-6	mg/L	0.005	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0006
Trichlorofluoromethane ¹	75-69-4	mg/L	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Vinyl acetate ¹	108-05-4	mg/L	-	x	x	<0.001	x	x	x	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Vinyl Chloride ¹	75-01-4	mg/L	0.001	x	x	x	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Trihalomethanes (THM)															
Bromodichloromethane ¹	75-27-4	mg/L	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Bromoform ¹	75-25-2	mg/L	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Chloroform ¹	67-66-3	mg/L	0.1	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Dibromochloromethane ¹	124-48-1	mg/L	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Semi Volatile Organic Compounds															
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
1-Chloronaphthalene	-	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2-Picoline	109-06-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Acenaphthene ¹	83-32-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Acenaphthylene ¹	208-96-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Acetophenone ¹	98-86-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
alpha, alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Benzidine ¹	92-87-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Benzo (b) fluoranthene ¹	205-99-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Benzo (g,h,i) perylene ¹	191-24-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Benzo (k) fluoranthene ¹	207-08-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Benzo[a]pyrene ¹	50-32-8	mg/L	0.0002	x	x	x	<0.001	x	<0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
bis (2-Chloroisopropyl) ether	-	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
(bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Carbazole	86-74-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Chlorobenzilate ¹	510-15-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Chrysene ¹	218-01-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Diallate ¹	2303-16-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Dibenz (a,j) acridine	224-42-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Dibenzofuran ¹	132-64-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Diethylphthalate ¹	84-66-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Dimethylphthalate ¹	131-11-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Di-n-octylphthalate ¹	117-84-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Diphenylamine ¹	122-39-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Fluoranthene ¹	206-44-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Fluorene ¹	86-73-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Hexachloroethane ¹	67-72-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
HMX ¹	2691-41-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Isophorone ¹	78-59-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Isosafrole ¹	120-58-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Methapyrilene ¹	91-80-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	x	x	<0.001	<0.00								

APPENDIX B

Las Cruces Foothills Landfill MW-1

Las Cruces Foothills Landfill monitoring well MW-1

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-1											
				3/1/90	5/19/92	7/20/92	12/7/93	6/7/96	5/11/99	7/7/99	9/15/99	11/3/99	5/18/00	11/9/00	6/13/01
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	x	x	<0.01	<0.01	x	<0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	x	x	<0.01	<0.01	x	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Semi Volatile Organic Compounds - Phenolics															
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	108-39-4/106-44-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	x	x	x	x	x	x
Radium 226 and 228	-	pCi/L	5			6.16	2.7	0.33	16.9	3.52	1.02	1.53	2.08	0.7	0.38
Ra-226, total	13982-63-3	pCi/L	-	x	x	3.76	1.2	0.33	7.1	0.92	0.26	0.45	1.04	0.27	0.16
Ra-228 ¹ , total	15262-20-1	pCi/L	-	x	x	2.4	1.5	0.00	9.8	2.6	0.76	1.08	1.04	0.43	0.22
Chlorinated Pesticides															
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹				mg/L	0.001										
Arochlor-1016	12674-11-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Arochlor-1221	11104-28-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Arochlor-1242	53469-21-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Arochlor-1248	12672-29-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Arochlor-1254	11097-69-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Arochlor-1260	11096-82-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Other Pesticides and Herbicides¹															
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Silvex ¹	93-72-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x

¹ hazardous

x parameter not analyzed

(*) See section entitled 'Semi volatile organic compounds - phenolics' for break-out of phenolics concentrations.

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(*) This concentration attributed to laboratory contamination of method blank and not the presence of antimony in the ground water sampled.

(#) Scanned for and not detected, breaks down almost immediately in water.

APPENDIX B

Las Cruces Foothills Landfill MW-1

Las Cruces Foothills Landfill monitoring well MW-1

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-1										
				11/6/01	4/3/02	7/12/02	9/25/02	12/18/02	7/15/03	12/29/03	12/2/04	12/14/05	12/12/06	1/18/08
Field Parameters														
water level elevation	-	ft amsl	-	3869.14	3868.87	3869.13	3867.07	3866.86	3,865.52	3,864.93	3,864.38	3,865.17	3,865.66	3,868.51
conductivity	-	µS/cm	-	349	360	358	387	394	380	360	306	325	300	310
pH	-	pH units	6-9	7.57	7.19	7.28	7.20	7.35	8.05	8.10	7.93	8.10	8.20	8.21
temperature	-	deg F	-	87.8	99.1	110.0	106.8	105.5	109.2	102.2	96.8	90.7	95.2	99.0
Major Ions														
calcium	7440-70-2	mg/L	-	35.3	x	31	30	30	26.1	27	23	25	21	22
chloride	16887-00-6	mg/L	250	15.1	x	17	17	19	16	16	15	15	16	17
fluoride ¹	16984-48-8	mg/L	1.6	0.64	x	0.58	0.72	0.66	0.5	0.6	x	x	x	x
magnesium	7439-95-4	mg/L	-	7.6	x	5.9	5.7	5.7	5.54	5.4	5.5	6	5.6	5.8
potassium	7440-09-7	mg/L	-	3.1	x	2.3	2.2	2.2	2.4	2	2.2	2.8	1.7	2.4
sodium	82115-62-6	mg/L	-	23	x	31	31	33	30.8	30	30	35	32	32
sulfate	18785-72-3	mg/L	600	41	x	50	33	66	43	42	40	38	40	39
alkalinity	-	mg/L	-	113.0	x	97	92	110	97	100	84	86	80	77
bicarbonate alkalinity	71-52-3	mg/L	-	137.9	x	97	92	110	96	100	84	86	80	77
carbonate alkalinity	3812-32-6	mg/L	-	0.0	x	<1.0	<2.0	<2.0	<2.0	<2.0	<4.0	<2.0	<2.0	<2.0
total dissolved solids	-	mg/L	1,000	218	x	220	250	230	200	190	190	230	200	190
Nitrogen Species														
ammonia as N	1331-21-6	mg/L	-	<0.01	x	x	0.061	<0.05	0.7	<0.5	0.56	0.7	0.7	0.56
Kjeldahl nitrogen	7727-37-9	mg/L	-	0.2	x	0.09	0.52	0.52	2	<1.0	x	x	1.1	x
nitrate as N	14797-55-8	mg/L	10	<0.05	x	2.3	0.74	1.2	1.1	<1.0	0.4	<1.0	<1.0	1.4
nitrite	14797-65-0	mg/L	-	<0.05	x	<0.10	2	<0.10	<0.1	<1.0	x	x	x	x
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Metals														
aluminum	7429-90-5	mg/L	5.0	0.18	x	<0.10	<0.03	<0.03	<0.03	<3.0	<3.0	x	x	x
antimony ¹	7440-36-0	mg/L	0.006	<0.0004	<0.05	<0.050	0.006 ("	<0.004	<0.0004	<0.003	x	x	x	x
arsenic ¹	7440-38-2	mg/L	0.01	0.0028	<0.005	<0.0050	<0.0050	<0.004	0.0013	<0.01	x	x	x	x
barium ¹	7440-39-3	mg/L	1.0	0.0233	0.091	0.078	0.069	0.07	0.0928	0.07	x	x	x	x
beryllium ¹	7440-41-7	mg/L	0.004	<0.0002	<0.003	<0.0030	<0.001	<0.001	<0.0002	<0.002	x	x	x	x
boron	7440-42-8	mg/L	0.75	<0.01	x	<0.010	0.027	0.028	<0.1	<0.5	x	x	x	x
cadmium ¹	7440-43-9	mg/L	0.005	0.0005	<0.005	<0.0010	<0.001	<0.001	<0.0001	<0.002	x	x	x	x
chromium ¹	7440-47-3	mg/L	0.05	0.0107	<0.005	<0.0050	<0.002	<0.002	0.0027	<0.01	x	x	x	x
cobalt ¹	7440-48-4	mg/L	0.05	<0.01	<0.01	<0.010	<0.001	<0.001	0.00008	<0.03	x	x	x	x
copper ¹	7440-50-8	mg/L	1.0	0.0523	<0.01	<0.010	0.001	<0.001	0.002	<0.06	x	x	x	x
iron	7439-89-6	mg/L	1.0	0.39	x	0.55	0.3	0.26	0.42	0.24	0.16	0.13	0.24	0.14
lead ¹	7439-92-1	mg/L	0.05	0.015	<0.005	<0.0050	<0.002	<0.002	0.0005	<0.01	x	x	x	x
manganese	7439-96-5	mg/L	0.2	<0.005	x	0.028	0.02	0.017	0.02	<0.03	<0.03	<0.03	<0.03	<0.03
mercury ¹	7439-97-6	mg/L	0.002	0.0006	<0.0002	<0.00020	<0.07	<0.20	<0.0002	<0.001	x	x	x	x
molybdenum	7439-98-7	mg/L	1.0	0.0045	x	<0.010	0.002	0.0030	<0.010	<0.75	x	x	x	x
nickel ¹	7440-02-0	mg/L	0.2	0.04482	<0.005	<0.0050	<0.002	0.007	0.00104	<0.05	x	x	x	x
selenium ¹	7782-49-2	mg/L	0.05	0.0013	<0.01	<0.010	0.003	<0.003	0.002	<0.005	x	x	x	x
silver ¹	7440-22-4	mg/L	0.05	<0.02	<0.005	<0.0050	<0.002	<0.002	<0.010	<0.01	x	x	x	x
thallium ¹	7440-28-0	mg/L	0.002	0.00049	<0.01	<0.010	<0.003	<0.003	0.00004	<0.001	x	x	x	x
tin ¹	7440-31-5	mg/L	-	x	<0.01	x	x	x	x	x	x	x	x	x
uranium ¹	7440-61-1	mg/L	0.03	0.00327	x	<0.02	0.00056	0.000561	<0.002	<2.5	x	x	x	x
vanadium ¹	7440-62-2	mg/L	-	<0.05	<0.01	<0.010	0.0020	0.0010	<0.050	<0.08	x	x	x	x
zinc ¹	7440-66-6	mg/L	10.0	1.81	<0.02	<0.020	<0.008	<0.008	<0.020	<0.05	x	x	x	x
total organic carbon	-	mg/L	-	2.8	x	2.4	2.1	1.3	1	0.56	0.7	0.8	<1.0	<1.0
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
sulfide ¹	18496-25-8	mg/L	-	x	<1.0	x	x	x	x	x	x	x	x	x
cyanide ¹	57-12-5	mg/L	0.2	<0.02	0.0094	<0.0050	<0.0050	<0.005	<0.01	<0.1	x	x	x	x
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	0.035	(^)	<0.0030	0.012	0.0034	<0.005	<0.003	<0.003	<0.003	<0.003	<0.0025
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	<0.0005	(^^)	(^^)	(^^)	(^^)	(^^)	(^^)	(^^)	x	x	x
Volatile Organic Compounds														
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.002	<0.002	<0.002	<0.002	<0.002
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloropropene ¹	563-58-6	mg/L	-	x	<0.001	<0.001	<0.001	x	<0.0005	x	x	x	x	x
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.0005	<0.00001	<0.001	<0.00001	<0.00001	<0.00001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	<0.0005	x	<0.001	x	<0.001	<0.0005	x	x	x	x	x
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	<0.0005	<0.02	<0.001	x	<0.001	<0.0005	x	x	x	x	x
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	x	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0002	<0.001	<0.0002	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	x	x	x	x	x
1,3-Dichloropropane ¹	142-28-9	mg/L	-	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	x	x	x	x	x
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.015	<0.015	<0.015	<0.015	<0.015
2,2-Dichloropropane ¹	78-87-5	mg/L	-	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	x	x	x	x	x
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.002	<0.01	<0.01	<0.01	<0.01	<0.025	<0.01	<0.01	<0.01	<0.01	<0.01
2-Chlorotoluene ¹	95-49-8	mg/L	-	<0.0005	x	<0.001	x	<0.001	<0.0005	x	x	x	x	x
2-Hexanone (Butyl Ketone) ¹	78-93-3	mg/L	-	<0.002	<0.01	<0.01	<0.01	<0.01	<0.025	<0.05	<0.05	<0.05	<0.05	<0.05
4-Chlorotoluene ¹	106-43-4	mg/L	-	<0.0005	x	<0.001	x	<0.001	<0.0005	x	x	x	x	x
4-Methyl-2-pentanone ¹	108-10-1	mg/L	-	<0.002	<0.01	<0.01	<0.01	<0.001	<0.025	<0.015	<0.015	<0.015	<0.015	

APPENDIX B

Las Cruces Foothills Landfill MW-1

Las Cruces Foothills Landfill monitoring well MW-1

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-1										
				11/6/01	4/3/02	7/12/02	9/25/02	12/18/02	7/15/03	12/29/03	12/2/04	12/14/05	12/12/06	1/18/08
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	<0.0001	<0.02	<0.0001	<0.0001	<0.0001	<0.005	x	x	x	x	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	<0.00025	<0.02	<0.0001	<0.0001	<0.0001	<0.005	x	x	x	x	x
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Semi Volatile Organic Compounds - Phenolics														
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	<0.1	x	x	x	x	x	x	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	<0.1	x	x	x	x	x	x	x	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	108-39-4/106-44-5	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	<0.1	x	x	x	x	x	x	x	x	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	<0.1	x	x	x	x	x	x	x	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	<0.1	x	x	x	x	x	x	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	<0.00078	x	x	x	x	x	x	x	x	x
Radium 226 and 228	-	pCi/L	5	0.69		1.33	0.247	0.564	0.8	<2.5				
Ra-226, total	13982-63-3	pCi/L	-	0.15	x	-0.17	0.0	0.564	0.6	<2.5	x	x	x	x
Ra-228 ¹ , total	15262-20-1	pCi/L	-	0.54	x	1.5	0.247	0.0	0.2	<2.5	x	x	x	x
Chlorinated Pesticides														
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
aldrin ¹	309-00-2	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
alpha-BHC ¹	319-84-6	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
beta-BHC ¹	319-85-7	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
Endrin ketone	53494-70-5	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Kepon ¹	143-50-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	x	<0.003	<0.000050	x	x	x	x	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹														
Arochlor-1016	12674-11-2	mg/L	-	x	<0.0005	<0.00050	<0.0005	<0.0005	<0.0025	<0.0005	x	x	x	x
Arochlor-1221	11104-28-2	mg/L	-	x	<0.0005	<0.00050	<0.0005	<0.0005	<0.0025	<0.0005	x	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	x	<0.0005	<0.00050	<0.0005	<0.0005	<0.0025	<0.0005	x	x	x	x
Arochlor-1242	53469-21-9	mg/L	-	x	<0.0005	<0.00050	<0.0005	<0.0005	<0.0025	<0.0005	x	x	x	x
Arochlor-1248	12672-29-6	mg/L	-	x	<0.0005	<0.00050	<0.0005	<0.0005	<0.0025	<0.0005	x	x	x	x
Arochlor-1254	11097-69-1	mg/L	-	x	<0.0005	<0.00050	<0.0005	<0.0005	<0.0025	<0.0005	x	x	x	x
Arochlor-1260	11096-82-5	mg/L	-	x	<0.0005	<0.00050	<0.0005	<0.0005	<0.0025	<0.0005	x	x	x	x
Other Pesticides and Herbicides¹														
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	x	<0.002	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	<0.002	x	x	x	x	x	x	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	<0.002	x	x	x	x	x	x	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	<0.002	x	x	x	x	x	x	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	<0.002	x	x	x	x	x	x	x	x	x
Famphur ¹	52-58-7	mg/L	-	x	<0.002	x	x	x	x	x	x	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	<0.002	x	x	x	x	x	x	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	<0.003	x	x	x	x	x	x	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	<0.002	x	x	x	x	x	x	x	x	x
Phorate ¹	298-02-2	mg/L	-	x	<0.002	x	x	x	x	x	x	x	x	x
Silvex ¹	93-72-1	mg/L	-	x	<0.002	x	x	x	x	x	x	x	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x

¹ hazardous

x parameter not analyzed

(*) See section entitled 'Semi volatile organic compounds - phenolics' for break-out of phenolics concn

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(*) This concentration attributed to laboratory contamination of method blank and not the presence of an

(#) Scanned for and not detected, breaks down almost immediately in water.

APPENDIX B

Las Cruces Foothills Landfill MW-1

Las Cruces Foothills Landfill monitoring well MW-1

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-1									
				12/23/08	12/29/09	12/29/10	12/27/11	12/19/12	6/25/13	12/19/13	6/26/14	12/11/14	6/18/15
Field Parameters													
water level elevation	-	ft amsl	-	3,870.08	3,870.18	3,876.01	3,874.07	3,872.03	3,867.41	3,866.37	3,869.11	3,868.16	3,866.16
conductivity	-	µS/cm	-	280	357	390	457	380	390	384	400	403	398
pH	-	pH units	6-9	8.26	7.34	7.93	7.81	6.83	7.02	7.20	7.32	7.42	7.57
temperature	-	deg F	-	87.8	92.7	102.6	104.7	72.5	112.6	105.8	105.1	107.4	103.8
Major Ions													
calcium	7440-70-2	mg/L	-	17	18	26	27	26	25	26	28	28	31
chloride	16887-00-6	mg/L	250	16	18	46	59	40	34	34	46	46	55
fluoride ¹	16984-48-8	mg/L	1.6	0.54	x	0.52	x	x	x	x	x	0.45	x
magnesium	7439-95-4	mg/L	-	4.8	5.4	7.2	7.5	6.7	6.1	6.1	6.8	6.4	7.1
potassium	7440-09-7	mg/L	-	2	2.2	2.6	2.8	2.6	2.7	2.8	2.4	2.7	2.5
sodium	82115-62-6	mg/L	-	29	32	36	37	36	36	34	36	34	38
sulfate	18785-72-3	mg/L	600	37	41	34	30	33	35	36	33	32	33
alkalinity	-	mg/L	-	73	74	69	73	78	84	84	83	86	78.48
bicarbonate alkalinity	71-52-3	mg/L	-	73	74	69	73	78	84	84	83	86	78.48
carbonate alkalinity	3812-32-6	mg/L	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
total dissolved solids	-	mg/L	1,000	190	189	237	238	233	231	233	248	232	252
Nitrogen Species													
ammonia as N	1331-21-6	mg/L	-	<0.50	<1.0	<1.0	0.56	0.56	<1.0	<1.0	<1.0	<1.0	<1.0
Kjeldahl nitrogen	7727-37-9	mg/L	-	<1.0	x	x	x	x	x	x	x	<1.0	x
nitrate as N	14797-55-8	mg/L	10	0.14	<0.1	<0.1	0.03	0.029	<0.10	0.14	0.10	<0.1	<0.1
nitrite	14797-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x
total nitrogen	-	mg/L	-	<1.0	x	x	x	x	x	x	x	<1.0	x
Metals													
aluminum	7429-90-5	mg/L	5.0	<0.02	x	<0.02	x	x	x	x	x	<0.02	x
antimony ¹	7440-36-0	mg/L	0.006	<0.001	<0.001	<0.001	<0.0025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
arsenic ¹	7440-38-2	mg/L	0.01	<0.006	<0.002	<0.001	<0.0025	<0.001	0.0013	<0.001	<0.001	0.0011	<0.001
barium ¹	7440-39-3	mg/L	1.0	0.073	0.092	0.13	0.13	0.11	0.12	0.11	0.12	0.12	0.12
beryllium ¹	7440-41-7	mg/L	0.004	<0.003	x	<0.001	0.00053	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003
boron	7440-42-8	mg/L	0.75	<0.04	x	<0.04	x	x	x	x	x	<0.04	x
cadmium ¹	7440-43-9	mg/L	0.005	<0.002	<0.002	<0.002	<0.00015	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
chromium ¹	7440-47-3	mg/L	0.05	<0.006	<0.006	<0.006	0.00082	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
cobalt ¹	7440-48-4	mg/L	0.05	<0.006	<0.006	<0.006	0.00061	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
copper ¹	7440-50-8	mg/L	1.0	<0.006	<0.006	<0.006	0.0014	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
iron	7439-89-6	mg/L	1.0	0.14	0.23	0.11	0.84	0.14	0.12	0.12	0.11	0.10	0.17
lead ¹	7439-92-1	mg/L	0.05	<0.005	<0.005	<0.005	0.0024	0.0018	<0.001	<0.001	<0.005	<0.001	<0.005
manganese	7439-96-5	mg/L	0.2	0.004	0.0042	0.017	0.0086	0.0059	0.0061	0.0077	0.0082	0.0093	0.0081
mercury ¹	7439-97-6	mg/L	0.002	<0.0002	x	<0.0002	x	x	x	x	x	<0.0002	x
molybdenum	7439-98-7	mg/L	1.0	<0.008	x	x	x	x	x	x	x	<0.008	x
nickel ¹	7440-02-0	mg/L	0.2	<0.01	<0.01	<0.01	0.0007	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
selenium ¹	7782-49-2	mg/L	0.05	0.001	<0.001	<0.001	<0.0025	<0.001	0.0033	0.0014	0.0017	<0.01	<0.005
silver ¹	7440-22-4	mg/L	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
thallium ¹	7440-28-0	mg/L	0.002	<0.001	<0.001	<0.001	<0.0025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005
tin ¹	7440-31-5	mg/L	-	<0.1	x	x	x	x	x	x	x	x	x
uranium ¹	7440-61-1	mg/L	0.03	<0.001	x	x	x	x	x	x	x	<0.001	x
vanadium ¹	7440-62-2	mg/L	-	<0.05	<0.05	<0.05	0.0026	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
zinc ¹	7440-66-6	mg/L	10.0	<0.02	<0.02	<0.02	0.0071	<0.01	<0.01	<0.01	<0.02	<0.01	<0.02
total organic carbon	-	mg/L	-	<1.0	1.1	<1.0	3.0	1.9	2.8	3.0	1.7	1.0	<1.0
phosphate	14265-44-2	mg/L	-	<0.50	x	<0.5	x	x	x	x	x	<0.50	x
sulfide ¹	18496-25-8	mg/L	-	<1	x	x	x	x	x	x	x	x	x
cyanide ¹	57-12-5	mg/L	0.2	<0.005	x	x	x	x	x	x	x	<0.01	x
perchlorate ¹	14797-73-0	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	<0.0025	<0.0025	<0.0025	0.0023	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	(^^)	x	x	x	x	x	x	x	(^^)	x
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloropropene ¹	563-58-6	mg/L	-	<0.005	x	x	x	x	x	x	x	x	x
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	x	x	x	x	x	x	x	x	x	x
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	<0.01	<0.001	x	x	x	x	x	x	x	x
1,3-Dichloropropane ¹	142-28-9	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.015	<0.001	<0.001	0.00039	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2,2-Dichloropropane ¹	78-87-5	mg/L	-	<0.015	x	x	x	x	x	x	x	x	x
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-Chlorotoluene ¹	95-49-8	mg/L	-	x	x	x	x	x	x	x	x	x	x
2-Hexanone (Butyl Ketone) ¹	78-93-3	mg/L	-	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4-Chlorotoluene ¹	106-43-4	mg/L	-	x	x	x	x	x	x	x	x	x	x
4-Methyl-2-pentanone ¹	108-10-1	mg/L	-	<0.015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acetone ¹	67-64-1	mg/L	-	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acrolein ¹	107-02-8	mg/L	-	<0.1	x	x	x	x	x	x	x	x	x
Acrylonitrile ¹	107-13-1	mg/L	-	<0.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Benzene ¹	71-43-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bis(chloromethyl) ether ¹	542-88-1	mg/L	-	(#)									

APPENDIX B

Las Cruces Foothills Landfill MW-1

Las Cruces Foothills Landfill monitoring well MW-1

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-1									
				12/23/08	12/29/09	12/29/10	12/27/11	12/19/12	6/25/13	12/19/13	6/26/14	12/11/14	6/18/15
Methacrylonitrile ¹	126-98-7	mg/L	-	<0.005	x	x	x	x	x	x	x	x	x
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl methacrylate ¹	80-62-6	mg/L	-	<0.03	x	x	x	x	x	x	x	x	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	0.00038	<0.001	<0.001	<0.001	<0.0025	<0.0025
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	x	x	x	x	x	x	x	x
Propionitrile ¹	107-12-0	mg/L	-	<0.06	x	x	x	x	x	x	x	x	x
Propylbenzene ¹	103-65-1	mg/L	-	x	x	x	x	x	x	x	x	x	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	x	x	x	x	x	x	x	x	x
Styrene ¹	100-42-5	mg/L	0.1	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	<0.001	x	x	x	x	x	x	x	x	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	x	x	x	x	x	x	x	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0077	0.009	0.012	0.014	0.013	0.013	0.011	0.012	0.012	0.014
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	x	x	x	x	x	x	x	x
Toluene ¹	108-88-3	mg/L	0.75	<0.005	<0.001	<0.001	0.00023	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes (m&p and o) ¹	-	mg/L	0.62	<0.005	<0.002	<0.002	0.00034	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.002	<0.001	<0.001	0.00026	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Trichloroethene (TCE) ¹	79-01-6	mg/L	0.005	<0.001	<0.001	0.0011	0.0018	0.0012	0.0016	0.0012	0.0016	0.0015	0.0017
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.01	<0.001	<0.001	0.00084	0.00073	<0.001	<0.001	<0.001	<0.001	<0.001
Vinyl acetate ¹	108-05-4	mg/L	-	<0.05	0.026	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Vinyl Chloride ¹	75-01-4	mg/L	0.001	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0005	<0.0005	<0.0004
Trihalomethanes (THM)													
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromoform ¹	75-25-2	mg/L	-	<0.015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroform ¹	67-66-3	mg/L	0.1	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Semi Volatile Organic Compounds													
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
1-Chloronaphthalene	-	mg/L	-	x	x	x	x	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	<0.001	x	x	x	x	x	x	x	<0.002	x
1-Naphthylamine ¹	134-32-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	<0.0002	x	x	x	x	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	<0.001	x	x	x	x	x	x	x	<0.002	x
2-Naphthylamine ¹	91-59-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2-Picoline	109-06-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Acenaphthene ¹	83-32-9	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Acenaphthylene ¹	208-96-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Acetophenone ¹	98-86-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
alpha, alpha-Dimethylphenethylamine	122-09-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Benzidine ¹	92-87-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	<0.00005	x	x	x	x	x	x	x	x	x
Benzo (b) fluoranthene ¹	205-99-2	mg/L	-	<0.00005	x	x	x	x	x	x	x	x	x
Benzo (g,h,i) perylene ¹	191-24-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Benzo (k) fluoranthene ¹	207-08-9	mg/L	-	<0.00005	x	x	x	x	x	x	x	x	x
Benzo[a]pyrene ¹	50-32-8	mg/L	0.0002	<0.00005	x	x	x	x	x	x	x	<0.00007	x
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	x	x	x	x	x
Benzyl alcohol ¹	100-51-6	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
bis (2-Chloroisopropyl) ether	-	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
(bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Carbazole	86-74-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Chlorobenzilate ¹	510-15-6	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Chrysene ¹	218-01-9	mg/L	-	<0.00005	x	x	x	x	x	x	x	x	x
Diallate ¹	2303-16-4	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Dibenz (a,i) acridine	224-42-0	mg/L	-	x	x	x	x	x	x	x	x	x	x
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	<0.00005	x	x	x	x	x	x	x	x	x
Dibenzofuran ¹	132-64-9	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x	x	x	x	x
Diethylphthalate ¹	84-66-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Dimethylphthalate ¹	131-11-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Di-n-octylphthalate ¹	117-84-0	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Diphenylamine ¹	122-39-4	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Fluoranthene ¹	206-44-0	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Fluorene ¹	86-73-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Hexachloroethane ¹	67-72-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Hexachloropropene ¹	1888-71-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
HMX ¹	2691-41-0	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	<0.00005	x	x	x	x	x	x	x	x	x
Isophorone ¹	78-59-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Isosafrole ¹	120-58-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x
Methapyrene ¹	91-80-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	<0.001	x	x	x	x	x	x	x	<0.002	x
Nitrobenzene ¹	98-95-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x

APPENDIX B

Las Cruces Foothills Landfill MW-1

Las Cruces Foothills Landfill monitoring well MW-1

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-1									
				12/23/08	12/29/09	12/29/10	12/27/11	12/19/12	6/25/13	12/19/13	6/26/14	12/11/14	6/18/15
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Pyridine	110-86-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)	99-35-4	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x
Semi Volatile Organic Compounds - Phenolics													
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	108-39-4/106-44-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	<0.001	x	x	x	x	x	x	x	x	x
Radium 226 and 228	-	pCi/L	5	-0.47								0.600	
Ra-226, total	13982-63-3	pCi/L	-	-0.07	x	x	x	x	x	x	x	0.532	x
Ra-228 ¹ , total	15262-20-1	pCi/L	-	-0.4	x	x	x	x	x	x	x	0.0681	x
Chlorinated Pesticides													
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
aldrin ¹	309-00-2	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
alpha-BHC ¹	319-84-6	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	x
beta-BHC ¹	319-85-7	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	<0.0002	x	x	x	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹													
Arochlor-1016	12674-11-2	mg/L	-	<0.00025	x	x	x	x	x	x	x	<0.00025	x
Arochlor-1221	11104-28-2	mg/L	-	<0.00025	x	x	x	x	x	x	x	<0.00025	x
Arochlor-1232	11141-16-5	mg/L	-	<0.00025	x	x	x	x	x	x	x	<0.00025	x
Arochlor-1242	53469-21-9	mg/L	-	<0.00025	x	x	x	x	x	x	x	<0.00025	x
Arochlor-1248	12672-29-6	mg/L	-	<0.00025	x	x	x	x	x	x	x	<0.00025	x
Arochlor-1254	11097-69-1	mg/L	-	<0.00025	x	x	x	x	x	x	x	<0.00025	x
Arochlor-1260	11096-82-5	mg/L	-	<0.00025	x	x	x	x	x	x	x	<0.00025	x
Other Pesticides and Herbicides¹													
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	<0.000768	x	x	x	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	<0.00005	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	<0.00005	x	x	x	x	x	x	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	<0.00005	x	x	x	x	x	x	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Famphur ¹	52-58-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Phorate ¹	298-02-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Silvex ¹	93-72-1	mg/L	-	<0.00005	x	x	x	x	x	x	x	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x

¹ hazardous

x parameter not analyzed

(*) See section entitled 'Semi volatile organic compounds - phenolics' for break-out of phenolics concern

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(*) This concentration attributed to laboratory contamination of method blank and not the presence of an

(#) Scanned for and not detected, breaks down almost immediately in water.

APPENDIX B

Las Cruces Foothills Landfill MW-1

Las Cruces Foothills Landfill monitoring well MW-1										baseline	standard
constituent	CAS Number	unit	GWPS	12/17/15	12/27/16	6/27/17	12/19/17	6/27/18	average	deviation	
date									5/11/99 to	5/11/99 to	
									5/18/00	5/18/00	
Field Parameters											
water level elevation	-	ft amsl	-	3,865.36	3,865.26	3,867.07	3,865.48	3,865.66	3872.77	1.52	
conductivity	-	uS/cm	-	439	453	478	475	463	403.80	41.88	
pH	-	pH units	6-9	7.78	7.80	8.07	7.90	7.96	7.16	0.58	
temperature	-	deg F	-	104.4	104.7	109.4	99.1	108.50	117.98	3.78	
Major Ions											
calcium	7440-70-2	mg/L	-	31	33	36	31	30	34.58	1.58	
chloride	16887-00-6	mg/L	250	61	60	66	62	57	16.28	1.25	
fluoride ¹	16984-48-8	mg/L	1.6	x	x	x	x	x	0.66	0.03	
magnesium	7439-95-4	mg/L	-	7.2	7.4	8.2	7.6	7.6	6.54	0.58	
potassium	7440-09-7	mg/L	-	2.6	2.7	2.9	2.8	3.0	2.30	0.54	
sodium	82115-62-6	mg/L	-	38	38	42	40	43	30.38	1.46	
sulfate	18785-72-3	mg/L	600	31	29	30	32	30	46.40	6.91	
alkalinity	-	mg/L	-	79.8	79.24	72.28	70.24	72.88	106.30	5.77	
bicarbonate alkalinity	71-52-3	mg/L	-	79.8	79.24	72.28	70.24	72.88	125.32	15.04	
carbonate alkalinity	3812-32-6	mg/L	-	<2.0	<2.0	<2.0	<2.0	<2.0	<1.0	x	
total dissolved solids	-	mg/L	1,000	273	280	268	270	273	231.80	24.23	
Nitrogen Species											
ammonia as N	1331-21-6	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	0.52	0.19	
Kjeldahl nitrogen	7727-37-9	mg/L	-	x	x	x	x	x	0.74	0.45	
nitrate as N	14797-55-8	mg/L	10	<0.1	0.11	0.96	0.81	2.80	4.40	0.51	
nitrite	14797-65-0	mg/L	-	x	x	x	x	x	1.32	1.98	
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x	
Metals											
aluminum	7429-90-5	mg/L	5.0	x	x	x	x	x	1.22	1.24	
antimony ¹	7440-36-0	mg/L	0.006	<0.001	<0.001	<0.001	<0.001	<0.001	0.00	x	
arsenic ¹	7440-38-2	mg/L	0.01	<0.005	<0.005	<0.001	<0.001	<0.001	0.00	0.01	
barium ¹	7440-39-3	mg/L	1.0	0.12	0.12	0.13	0.12	0.11	0.30	0.47	
beryllium ¹	7440-41-7	mg/L	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0002	x	
boron	7440-42-8	mg/L	0.75	x	x	x	x	x	0.06	0.03	
cadmium ¹	7440-43-9	mg/L	0.005	<0.002	<0.002	<0.002	<0.002	<0.002	0.0002	0.0000	
chromium ¹	7440-47-3	mg/L	0.05	<0.006	<0.006	<0.006	<0.006	<0.006	0.0068	0.0040	
cobalt ¹	7440-48-4	mg/L	0.05	<0.006	<0.006	<0.006	<0.006	<0.006	0.1	x	
copper ¹	7440-50-8	mg/L	1.0	<0.006	<0.006	<0.006	0.0011	<0.006	0.60	0.95	
iron	7439-89-6	mg/L	1.0	0.15	0.22	0.14	0.21	0.078	126.43	223.04	
lead ¹	7439-92-1	mg/L	0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.08	0.14	
manganese	7439-96-5	mg/L	0.2	0.0074	0.010	0.0086	0.044	0.0084	0.84	1.56	
mercury ¹	7439-97-6	mg/L	0.002	x	x	x	x	x	0.00	0.00	
molybdenum	7439-98-7	mg/L	1.0	x	x	x	x	x	0.00	x	
nickel ¹	7440-02-0	mg/L	0.2	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.03	
selenium ¹	7782-49-2	mg/L	0.05	<0.005	<0.005	0.0020	0.0011	0.0017	0.00	0.00	
silver ¹	7440-22-4	mg/L	0.05	<0.005	<0.005	<0.005	0.0054	<0.005	<0.02	x	
thallium ¹	7440-28-0	mg/L	0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.00	0.00	
tin ¹	7440-31-5	mg/L	-	x	x	x	x	x	x	x	
uranium ¹	7440-61-1	mg/L	0.03	x	x	x	x	x	0.003	0.003	
vanadium ¹	7440-62-2	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	x	
zinc ¹	7440-66-6	mg/L	10.0	<0.01	<0.01	<0.01	<0.01	<0.01	3.66	6.22	
total organic carbon	-	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	0.78	0.46	
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x	
sulfide ¹	18496-25-8	mg/L	-	x	x	x	x	x	x	x	
cyanide ¹	57-12-5	mg/L	0.2	x	x	x	x	x	x	x	
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	
total phenolics ¹	-	mg/L	0.005	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.02	x	
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	x	x	x	x	x	<0.0005	x	
Volatile Organic Compounds											
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	x	
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	x	
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	x	
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	x	
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	x	
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	x	
1,1-Dichloropropene ¹	563-58-6	mg/L	-	x	x	x	x	x	x	x	
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.00002	<0.00002	<0.000019	<0.000094	<0.000019	<0.0001	x	
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	x	x	x	x	x	<0.0005	x	
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	x	
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	x	x	x	x	x	<0.0005	x	
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	x	
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	x	x	x	x	x	<0.0005	x	
1,3-Dichloropropane ¹	142-28-9	mg/L	-	x	x	x	x	x	<0.0005	x	
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	x	
2,2-Dichloropropane ¹	78-87-5	mg/L	-	x	x	x	x	x	<0.0005	x	
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	x	
2-Chlorotoluene ¹	95-49-8	mg/L	-	x	x	x	x	x	<0.0005	x	
2-Hexanone (Butyl Ketone) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	x	
4-Chlorotoluene ¹	106-43-4	mg/L	-	x	x	x	x	x	<0.0005	x	
4-Methyl-2-pentanone ¹	108-10-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	x	
Acetone ¹	67-64-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Acrolein ¹	107-02-8	mg/L	-	x	x	x	x	x	x	x	
Acrylonitrile ¹	107-13-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	x	
Benzene ¹	71-43-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	x	
Bis(chloromethyl) ether ¹	542-88-1	mg/L	-	x	x	x	x	x	x	x	
Bromochloromethane ¹	74-97-5	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0005	x	
Bromomethane (methyl bromide) ¹	74-83-9	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	
Carbon Disulfide ¹	75-15-00	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	x	
Carbon Tetrachloride ¹	56-23-5	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	x	
Chlorobenzene ¹	108-90-7	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	x	
Chloroethane ¹	75-03-3	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0005	x	
Chloromethane (methyl chloride) ¹	74-87-3	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	x	
Chloroprene (2-Chloro-1,3-butadiene) ¹	126-99-8	mg/L	-	x	x	x	x	x	x	x	
cis-1,2-Dichloroethylene (cis-1,2-Dichloroethene) ¹	156-59-2	mg/L	0.07	0.0041	0.0055	0.0056	0.0052	0.0047	<0.0005	x	
cis-1,3-Dichloropropene ¹	542-75-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	x	
Dibromomethane (methylene bromide) ¹	74-95-3	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	x	
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	0.0025	0.0036	0.0037	0.0021	0.0018	0.0015	x	
Ethyl methacrylate ¹	97-63-2	mg/L	-	x	x	x	x	x	x	x	
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	x	
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	5E-05	<0.00001	<0.00001	<0.0000095	<0.0000094	<0.0000095	<0.0001	x	
Hexachlorobutadiene ¹	87-68-3	mg/L	-	x	x	x	x	x	<0.0005	x	
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	x	x	x	x	x	x	
Isopropylbenzene ¹	98-82-8	mg/L	-	x	x	x	x	x	<0.0005	x	

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APPENDIX B

Las Cruces Foothills Landfill MW-1

Las Cruces Foothills Landfill monitoring well MW-1									baseline	standard
constituent	CAS Number	unit	GWPS	12/17/15	12/27/16	6/27/17	12/19/17	6/27/18	average	deviation
									5/11/99 to	5/11/99 to
date									5/18/00	5/18/00
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	x	x	x	x
Methyl iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	x
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	x	x	x	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0005	x
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	x	x	x	<0.0005	x
Propionitrile ¹	107-12-0	mg/L	-	x	x	x	x	x	x	x
Propylbenzene ¹	103-65-1	mg/L	-	x	x	x	x	x	<0.0005	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	x	x	x	x	<0.0005	x
Styrene ¹	100-42-5	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	x
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	x	x	x	x	x	<0.002	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	x	x	x	<0.0005	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.015	0.015	0.015	0.012	0.011	0.0042	0.0014
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	x	x	x	<0.002	x
Toluene ¹	108-88-3	mg/L	0.75	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	x
Total Xylenes (m&p and o) ¹	-	mg/L	0.62	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0005	x
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	x
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	x
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	x
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.0020	0.0023	0.0026	0.0023	0.0022	<0.0005	x
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.001	0.0012	0.0011	0.0011	0.0011	<0.001	x
Vinyl acetate ¹	108-05-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	x
Vinyl Chloride ¹	75-01-4	mg/L	0.001	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0005	x
Trihalomethanes (THM)										
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	x
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	x
Chloroform ¹	67-66-3	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	x
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	x
Semi Volatile Organic Compounds										
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	x	x	x	x	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	x	x	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	x	x	x	x
1-Chloronaphthalene	-	mg/L	-	x	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	x	x	x	x	x	x	x
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	x	x	x	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	x	x	x	x	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	x	x	x	x	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	x	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	x	x	x	x	x	x	x
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	x	x	x	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	x	x	x	x	x
2-Picoline	109-06-8	mg/L	-	x	x	x	x	x	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	x	x	x	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	x	x	x	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	x	x	x	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	x	x	x	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	x	x	x	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	x	x	x	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	x	x	x	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	x	x	x	x	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	x	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	x	x	x	x	x
Acenaphthene ¹	83-32-9	mg/L	-	x	x	x	x	x	x	x
Acenaphthylene ¹	208-96-8	mg/L	-	x	x	x	x	x	x	x
Acetophenone ¹	98-86-2	mg/L	-	x	x	x	x	x	x	x
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	x	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	x	x	x	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	x	x	x	x	x	x	x
Benzidine ¹	92-87-5	mg/L	-	x	x	x	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	x	x	x	x	x	x	x
Benzo (b) fluoranthene ¹	205-99-2	mg/L	-	x	x	x	x	x	x	x
Benzo (g,h,i) perylene ¹	191-24-2	mg/L	-	x	x	x	x	x	x	x
Benzo (k) fluoranthene ¹	207-08-9	mg/L	-	x	x	x	x	x	x	x
Benzo[a]pyrene ¹	50-32-8	mg/L	0.0002	x	x	x	x	x	<0.0001	x
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	x	x
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x	x	x	x	x	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	x	x	x	x	x	x
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	x	x	x	x	x	x	x
bis (2-Chloroisopropyl) ether										
(bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	x	x	x	x	x	x	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	x	x	x	x	x	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	x	x	x	x	x	x
Carbazole	86-74-8	mg/L	-	x	x	x	x	x	x	x
Chlorobenzilate ¹	510-15-6	mg/L	-	x	x	x	x	x	x	x
Chrysene ¹	218-01-9	mg/L	-	x	x	x	x	x	x	x
Diallate ¹	2303-16-4	mg/L	-	x	x	x	x	x	x	x
Dibenz (a,i) acridine	224-42-0	mg/L	-	x	x	x	x	x	x	x
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	x	x	x	x	x	x	x
Dibenzofuran ¹	132-64-9	mg/L	-	x	x	x	x	x	x	x
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x	x
Diethylphthalate ¹	84-66-2	mg/L	-	x	x	x	x	x	x	x
Dimethylphthalate ¹	131-11-3	mg/L	-	x	x	x	x	x	x	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	x	x	x	x	x	x	x
Di-n-octylphthalate ¹	117-84-0	mg/L	-	x	x	x	x	x	x	x
Diphenylamine ¹	122-39-4	mg/L	-	x	x	x	x	x	x	x
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	x	x	x	x	x	x
Fluoranthene ¹	206-44-0	mg/L	-	x	x	x	x	x	x	x
Fluorene ¹	86-73-7	mg/L	-	x	x	x	x	x	x	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	x	x	x	x	x	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	x	x	x	x	x	x
Hexachloroethane ¹	67-72-1	mg/L	-	x	x	x	x	x	x	x
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x	x	x	x	x	x
HMX ¹	2691-41-0	mg/L	-	x	x	x	x	x	x	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	x	x	x	x	x	x	x
Isophorone ¹	78-59-1	mg/L	-	x	x	x	x	x	x	x
Isosafrole ¹	120-58-1	mg/L	-	x	x	x	x	x	x	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	x	x	x	x	x
Methapyrene ¹	91-80-5	mg/L	-	x	x	x	x	x	x	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	x	x	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	x	x	x	x	x	<0.0005	x
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	x	x	x	x	x

APPENDIX B

Las Cruces Foothills Landfill MW-1

Las Cruces Foothills Landfill monitoring well MW-1									baseline	standard
constituent	CAS Number	unit	GWPS	12/17/15	12/27/16	6/27/17	12/19/17	6/27/18	average	deviation
date									5/11/99 to	5/11/99 to
									5/18/00	5/18/00
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	x	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	x	x	x	x	x	<0.0001	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	x	x	x	x	x	<0.00025	x
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x
Semi Volatile Organic Compounds - Phenolics										
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	108-39-4/106-44-5	mg/L	-	x	x	x	x	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	x	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	x	x	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	x
Radium 226 and 228	-	pCi/L	5						5.01	6.71
Ra-226, total	13982-63-3	pCi/L	-	x	x	x	x	x	1.95	2.89
Ra-228 ¹ , total	15262-20-1	pCi/L	-	x	x	x	x	x	3.06	3.84
Chlorinated Pesticides										
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	x	x	x
4,4-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	x	x
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	x	x
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	x	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹										
Arochlor-1016	12674-11-2	mg/L	-	x	x	x	x	x	x	x
Arochlor-1221	11104-28-2	mg/L	-	x	x	x	x	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	x	x	x	x	x	x	x
Arochlor-1242	53469-21-9	mg/L	-	x	x	x	x	x	x	x
Arochlor-1248	12672-29-6	mg/L	-	x	x	x	x	x	x	x
Arochlor-1254	11097-69-1	mg/L	-	x	x	x	x	x	x	x
Arochlor-1260	11096-82-5	mg/L	-	x	x	x	x	x	x	x
Other Pesticides and Herbicides¹										
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	x	x	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	x	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	x	x	x	x
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	x	x
Silvex ¹	93-72-1	mg/L	-	x	x	x	x	x	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x	x

¹ hazardous

x parameter not analyzed

(*) See section entitled 'Semi volatile organic compounds - phenolics' for break-out of phenolics concen

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(#) This concentration attributed to laboratory contamination of method blank and not the presence of an

(#) Scanned for and not detected , breaks down almost immediately in water.

MW-2

APPENDIX B
Las Cruces Foothills Landfill MW-2

Las Cruces Foothills Landfill monitoring well MW-2

Constituent	CAS Number	unit	GWPS	RESULTS FOR MW-2										
				1/12/99	5/11/99	7/7/99	9/1/99	11/1/99	5/18/00	11/9/00	6/13/01	11/6/01	4/3/02	7/12/02
Field Parameters														
water level elevation	NA	ft amsl	-	3864.68	3862.80	3852.70	3852.20	3862.69	3857.2	3859.8	3857.84	3853.7	3856.2	3857.93
conductivity	NA	µS/cm	-	398	345	381	431	392	366	364	364	358	375	363
pH	NA	pH units	6-9	7.78	7.81	7.50	6.87	6.82	7.02	7.25	7.79	7.13	6.97	6.58
temperature	NA	deg F	-	109	108	107	105.0	109.0	108.7	101.5	104.5	81.0	101.7	107.0
Major Ions														
calcium	7440-70-2	mg/L	-	38.4	35.1	40.5	37.5	36.2	40.4	38.0	33.8	41.8	x	37
chloride	16887-00-6	mg/L	250	19.5	10.1	9	9	9.8	9.2	9.2	15.2	9.5	x	12
fluoride ¹	16984-48-8	mg/L	1.6	0.83	0.75	0.69	0.7	0.66	0.65	0.67	0.67	0.66	x	0.6
magnesium	7439-95-4	mg/L	-	6.7	5.3	5.3	5.1	7.9	5.5	5.5	6.0	6.6	x	5.4
potassium	7440-09-7	mg/L	-	14.0	1.7	1.7	1.9	2.6	2.2	2.0	2.1	2.3	x	1.8
sodium	82115-62-6	mg/L	-	46.4	29.9	29.5	27.3	28.5	30.1	34.0	32.1	16.9	x	29
sulfate	18785-72-3	mg/L	600	44	30	38	32	31	29	31	39	31	x	35
alkalinity	NA	mg/L	-	165.0	130.0	125.4	130	128.5	133	131.9	98.0	129.0	x	130
bicarbonate alkalinity	71-52-3	mg/L	-	201.3	130.0	153.1	158.6	156.8	162.3	161.0	119.6	157.4	x	130
carbonate alkalinity	3812-32-6	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	x	x	x	x	x	<1.0
total dissolved solids	NA	mg/L	1,000	268	222	251	233	237	231	217	196	229	x	230
Nitrogen Species														
ammonia as N	1331-21-6	mg/L	-	0.03	0.03	<0.01	<0.01	0.02	<0.01	<0.01	0.60	<0.01	x	x
Kjeldahl nitrogen	7727-37-9	mg/L	-	0.4	0.3	0.1	0.2	<0.5	2.4	0.1	0.8	<0.01	x	0.89
nitrate as N	14797-55-8	mg/L	10	2.2	2.28	2.2	2.3	2.2	2.0	2.0	2.11	2.11	x	1.9
nitrite	14797-65-0	mg/L	-	2.2	2.28	<0.05	<0.05	<0.05	<0.05	<0.05	2.11	<0.05	x	<0.10
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Metals														
aluminum	7429-90-5	mg/L	5.0	3.75	2.80	1.26	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x	<0.10
antimony ¹	7440-36-0	mg/L	0.006	0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.05	<0.050
arsenic ¹	7440-38-2	mg/L	0.01	0.0019	0.0027	0.0027	0.0019	0.002	0.0015	0.0022	0.0022	<0.0022	<0.005	<0.0050
barium ¹	7440-39-3	mg/L	1.0	0.1636	0.084	0.0994	0.0334	0.0321	0.0324	0.0313	0.0339	0.0323	0.033	0.03
beryllium ¹	7440-41-7	mg/L	0.004	<0.0002	<0.0002	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.003	<0.0030
boron	7440-42-8	mg/L	0.75	<0.01	0.03	0.17	0.04	0.05	0.03	0.02	0.01	<0.01	x	<0.10
cadmium ¹	7440-43-9	mg/L	0.005	<0.0001	<0.0001	0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.005	<0.0010
chromium ¹	7440-47-3	mg/L	0.05	<0.0001	0.005	0.0065	0.0011	<0.0001	<0.0001	0.002	0.0018	0.0073	<0.005	<0.0050
cobalt ¹	7440-48-4	mg/L	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.010
copper ¹	7440-50-8	mg/L	1.0	0.0115	0.025	0.0271	0.0027	0.0012	<0.04	0.0048	0.0031	0.0015	<0.01	<0.010
iron	7439-89-6	mg/L	1.0	3.19	2.37	4.71	<0.05	0.07	<0.01	0.23	0.01	<0.01	x	<0.10
lead ¹	7439-92-1	mg/L	0.05	0.0052	0.001	0.0092	0.0001	0.0003	<0.0001	0.0009	0.0003	0.0042	<0.005	<0.0050
manganese	7439-96-5	mg/L	0.2	0.18	0.09	0.17	<0.02	0.03	<0.005	0.013	<0.005	<0.005	x	<0.010
mercury ¹	7439-97-6	mg/L	0.002	<0.0002	<0.0002	0.00012	0.0011	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.00020
molybdenum	7439-98-7	mg/L	1.0	<0.05	<0.05	<0.05	<0.05	<0.05	0.002	0.002	0.0021	0.002	x	<0.010
nickel ¹	7440-02-0	mg/L	0.2	0.0217	0.006	0.01896	0.0027	0.0027	0.0026	0.00252	0.00211	0.00206	<0.005	<0.0050
selenium ¹	7782-49-2	mg/L	0.05	0.001	0.0012	0.0013	0.001	0.0016	0.0016	0.0014	0.0019	0.0011	<0.01	<0.010
silver ¹	7440-22-4	mg/L	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.06	<0.02	<0.005	<0.0050
thallium ¹	7440-28-0	mg/L	0.002	0.00008	0.0001	0.00003	0.00004	<0.00003	<0.00003	<0.00003	<0.00003	0.00019	<0.01	<0.010
tin ¹	7440-31-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.01	x
uranium ¹	7440-61-1	mg/L	0.03	0.0044	0.003	0.00341	0.00251	0.00251	0.00235	0.00187	0.00298	0.00248	x	<0.02
vanadium ¹	7440-62-2	mg/L	-	<0.05	<0.05	0.08	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.01	<0.010
zinc	7440-66-6	mg/L	10.0	0.04	0.04	0.33	0.02	<0.01	-	0.04	<0.01	<0.01	0.036	<0.020
total organic carbon	-	mg/L	-	5.6	0.56	<0.5	<0.5	<0.5	0.7	0.9	4.5	2.3	x	1.1
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
sulfide ¹	18496-25-8	mg/L	-	x	x	x	x	x	x	x	x	x	<1.0	x
cyanide ¹	57-12-5	mg/L	0.2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.005	<0.0050
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	0.07	<0.005	<0.02	0.004	<0.003	0.003	<0.003	0.005	0.005	(*)	<0.0030
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	(**)	(**)
Volatile Organic Compounds														
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.001	<0.001	<0.0005	<0.0005	<0.0005	0.0006	<0.0005	0.0005	0.0006	<0.001	<0.001
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE)	75-35-4	mg/L	0.005	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
1,1-Dichloropropene ¹	563-58-6	mg/L	-	x	x	x	x	x	x	x	x	x	<0.001	<0.001
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.01	<0.01	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.001
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.02	<0.001
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	x	x	x	x	x	x	x	x	x	<0.001	<0.001
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.001
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
1,3-Dichloropropane ¹	142-28-9	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
2,2-Dichloropropane ¹	78-87-5	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93													

APPENDIX B
Las Cruces Foothills Landfill MW-2

Las Cruces Foothills Landfill monitoring well MW-2

Constituent	CAS Number	unit	GWPS	RESULTS FOR MW-2										
				1/12/99	5/11/99	7/7/99	9/1/99	11/1/99	5/18/00	11/9/00	6/13/01	11/6/01	4/3/02	7/12/02
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Isopropylbenzene ¹	98-82-8	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	x	x	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.001
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.002	<0.002	<0.0005	<0.0005	<0.0005	0.0005	0.0009	0.0008	0.0007	<0.001	<0.001
n-Butylbenzene ¹	104-51-8	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001
Propionitrile ¹	107-12-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Propylbenzene ¹	103-65-1	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001
sec-Butylbenzene ¹	113-98-8	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001
Styrene ¹	100-42-5	mg/L	0.1	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0021	x	<0.001
tert-Butylbenzene ¹	98-06-6	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0074	0.0123	0.0073	0.0021	0.0051	0.0098	0.0091	0.0059	0.0074	0.0058	0.0083
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x
Toluene ¹	108-88-3	mg/L	0.75	<0.001	<0.001	0.0012	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.001	<0.001	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	<0.001
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	x	x	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001
Trichloroethene (TCE)	79-01-6	mg/L	0.005	<0.001	0.001	0.0006	<0.0005	<0.0005	0.0012	0.001	0.001	0.0009	<0.001	0.0013
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	0.0006	0.001	0.0007	0.0005	<0.0005	<0.001	<0.001
Vinyl acetate ¹	108-05-4	mg/L	-	x	x	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001
Vinyl Chloride ¹	75-01-4	mg/L	0.001	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0004	<0.001
Trihalomethanes (THM)														
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
Chloroform ¹	67-66-3	mg/L	0.1	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
Semi Volatile Organic Compounds														
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
2-Picoline	109-06-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Acenaphthene ¹	83-32-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001
Acenaphthylene ¹	208-96-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001
Acetophenone ¹	98-86-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001
Benzidine ¹	92-87-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001
Benzo (b) fluoranthene ¹	50-32-8	mg/L	0.0002	<0.1	<0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.02	<0.0001
Benzo (g,h,i) perylene ¹	205-99-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001
Benzo (k) fluoranthene ¹	191-24-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001
Benzo[a]pyrene ¹	207-08-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001
Benzoic acid ¹	65-85-0	mg/L	-					x	x	x	x	x	<0.1	x
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
(bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Carbazole	86-74-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Chlorobenzilate ¹	510-15-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Chrysene ¹	218-01-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001
Diallyl ¹	2303-16-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Dibenz(a,i)acridine	224-42-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001
Dibenzofuran ¹	132-64-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Diethylphthalate ¹	84-66-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Dimethylphthalate ¹	131-11-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Di-n-octylphthalate ¹	117-84-0	mg/L	-	x	x	x								

APPENDIX B
Las Cruces Foothills Landfill MW-2

Las Cruces Foothills Landfill monitoring well MW-2

Constituent	CAS Number	unit	GWPS	RESULTS FOR MW-2										
				1/12/99	5/11/99	7/7/99	9/1/99	11/1/99	5/18/00	11/9/00	6/13/01	11/6/01	4/3/02	7/12/02
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	<1.0	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.02	<0.0001
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	<0.1	<0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.02	<0.0001
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	<0.25	<0.001	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.02	<0.0001
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Semi Volatile Organic Compounds - Phenolics														
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x	x	x	x	<0.1	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.1	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	x	x	x	x	<0.1	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.1	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.1	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	x	x	x	<0.00078	x
Radium 226 and 228														
Ra-226, total	NA	pCi/L	5	44.2	2.20	3.43	2.18	1.21	1.67	1.25	0.9	0.69		1.084
Ra-228 ¹ , total	NA	pCi/L	-	17.20	0.44	0.93	0.43	0.29	0.6	0.26	0.22	0.15	x	0.121
				27.00	1.76	2.5	1.75	0.92	1.07	0.99	0.68	0.54	x	0.963
Chlorinated Pesticides														
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
4,4-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
gamma-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.003	<0.00005
Polychlorinated Biphenyls (PCBs)														
Arochlor-1016	12674-11-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005
Arochlor-1221	11104-28-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005
Arochlor-1232	11141-16-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005
Arochlor-1242	53469-21-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005
Arochlor-1248	12672-29-6	mg/L	-	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005
Arochlor-1254	11097-69-1	mg/L	-	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005
Arochlor-1260	11096-82-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005
Other Pesticides and Herbicides¹														
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	x	x	x	x	x	x	<0.003	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x
Silvex ¹	93-72-1	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x

APPENDIX B

Las Cruces Foothills Landfill MW-2

no sampling of MW-2 on 7/15/03 because pump was not working

Las Cruces Foothills Landfill monitoring well MW-2

constituent	CAS Number	unit	GWPS	RESU											
				9/25/02	12/18/02	12/29/03	12/2/04	12/14/05	12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/27/11	12/19/12
Field Parameters															
water level elevation	NA	ft amsl	-	3856.54	3856.69	3,858.72	3858.76	3858.84	3858.11	3859.36	3861.71	3861.82	3866.83	3866.03	3864.52
conductivity	NA	µS/cm	-	393	414	377	345	387	380	370	350	414	380	390	384
pH	NA	pH units	6-9	6.63	6.46	7.40	7.68	7.60	7.70	7.05	7.63	6.72	7.22	7.03	7.62
temperature	NA	deg F	-	102.6	106.2	101.8	96.8	90.1	94.8	89.1	89.6	88.2	91.4	91.2	75.4
Major Ions															
calcium	7440-70-2	mg/L	-	38	37	35	36	40	38	40	34	38	38	39	37
chloride	16887-00-6	mg/L	250	11	15	11	9.6	9	9.6	9.3	8.1	8.9	8.0	8.1	8.1
fluoride ¹	16984-48-8	mg/L	1.6	0.73	0.67	0.58	x	x	x	x	0.57	x	0.57	x	x
magnesium	7439-95-4	mg/L	-	5.5	5.5	5.1	5.5	5.8	5.6	5.8	5	5.6	5.7	5.8	5.5
potassium	7440-09-7	mg/L	-	1.8	1.9	1.4	1.7	2.2	1.2	1.8	1.4	1.6	1.9	1.9	1.6
sodium	82115-62-6	mg/L	-	30	30	25	28	32	29	29	26	29	30	31	29
sulfate	18785-72-3	mg/L	600	34	40	35	38	33	35	33	31	34	32	32	31
alkalinity	NA	mg/L	-	120	130	140	130	130	120	130	130	130	130	130	130
bicarbonate alkalinity	71-52-3	mg/L	-	120	130	140	130	130	120	130	130	130	130	130	130
carbonate alkalinity	3812-32-6	mg/L	-	<2.0	<2.0	<2.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
total dissolved solids	NA	mg/L	1,000	260	230	200	230	250	240	230	240	235	242	231	237
Nitrogen Species															
ammonia as N	1331-21-6	mg/L	-	<0.05	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	0.42
Kjeldahl nitrogen	7727-37-9	mg/L	-	<0.5	0.57	<1.0	x	x	x	x	<1.0	x	x	x	x
nitrate as N	14797-55-8	mg/L	10	2.2	2.2	<1.0	0.12	<1.0	1.4	1.1	1.7	1.8	1.2	1.3	1.5
nitrite	14797-65-0	mg/L	-	<0.1	<0.10	<1.0	x	x	x	x	x	x	x	x	x
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x	1.7	x	x	x	x
Metals															
aluminum	7429-90-5	mg/L	5.0	<0.03	0.04	<3.0	<3.0	x	x	x	<0.02	x	<0.02	x	x
antimony ¹	7440-36-0	mg/L	0.006	0.005 (")	<0.004	<0.003	x	x	x	x	<0.001	<0.001	<0.001	<0.001	<0.001
arsenic ¹	7440-38-2	mg/L	0.01	<0.004	<0.004	<0.01	x	x	x	x	0.007	0.003	0.00143	0.0015	0.0017
barium ¹	7440-39-3	mg/L	1.0	0.031	0.03	0.03	x	x	x	x	0.027	0.033	0.034	0.033	0.032
beryllium ¹	7440-41-7	mg/L	0.004	<0.001	<0.001	<0.002	x	x	x	x	<0.003	x	<0.001	0.00029	<0.002
boron	7440-42-8	mg/L	0.75	0.036	0.034	<0.5	x	x	x	x	<0.04	x	<0.04	x	x
cadmium ¹	7440-43-9	mg/L	0.005	<0.001	<0.001	<0.002	x	x	x	x	<0.002	<0.002	<0.002	<0.002	<0.002
chromium ¹	7440-47-3	mg/L	0.05	<0.002	0.02	<0.01	x	x	x	x	<0.006	<0.006	<0.006	<0.006	<0.006
cobalt ¹	7440-48-4	mg/L	0.05	<0.001	<0.001	<0.03	x	x	x	x	<0.006	<0.006	<0.006	0.00059	<0.006
copper ¹	7440-50-8	mg/L	1.0	<0.001	0.007	<0.06	x	x	x	x	<0.006	<0.006	<0.006	<0.006	<0.006
iron	7439-89-6	mg/L	1.0	0.009	0.2	0.15	0.29	0.38	0.19	<0.10	<0.05	<0.05	<0.05	<0.02	<0.02
lead ¹	7439-92-1	mg/L	0.05	<0.002	0.002	<0.01	x	x	x	x	<0.005	<0.005	<0.005	<0.005	0.0022
manganese	7439-96-5	mg/L	0.2	<0.001	0.0030	<0.03	<0.03	<0.03	<0.03	<0.03	<0.002	<0.002	<0.002	0.0007	<0.002
mercury ¹	7439-97-6	mg/L	0.002	<0.07	<0.20	<0.001	x	x	x	x	<0.002	x	<0.002	x	x
molybdenum	7439-98-7	mg/L	1.0	0.003	0.003	<0.75	x	x	x	x	<0.008	x	<0.008	x	x
nickel ¹	7440-02-0	mg/L	0.2	<0.002	0.012	<0.05	x	x	x	x	<0.01	<0.01	<0.01	0.00036	0.001
selenium ¹	7782-49-2	mg/L	0.05	0.004	<0.003	<0.005	x	x	x	x	0.001	<0.001	<0.001	<0.001	<0.001
silver ¹	7440-22-4	mg/L	0.05	<0.002	<0.002	<0.01	x	x	x	x	<0.005	<0.005	<0.005	<0.005	<0.005
thallium ¹	7440-28-0	mg/L	0.002	<0.003	<0.003	<0.001	x	x	x	x	<0.001	<0.001	<0.001	<0.001	<0.001
tin ¹	7440-31-5	mg/L	-	x	x	x	x	x	x	x	<0.1	x	x	x	x
uranium ¹	7440-61-1	mg/L	0.03	0.00219	0.00237	<2.5	x	x	x	x	0.002	x	x	x	x
vanadium ¹	7440-62-2	mg/L	-	0.01	0.003	<0.08	x	x	x	x	<0.05	<0.05	<0.05	0.0078	0.0062
zinc	7440-66-6	mg/L	10.0	<0.008	0.018	<0.05	x	x	x	x	<0.02	<0.02	<0.02	0.0054	0.0024
total organic carbon	-	mg/L	-	2.7	<1.0	0.65	1	0.7	<1.0	2.6	<1.0	<1.0	<1.0	0.26	<1.0
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x	<0.50	x	<0.50	x	x
sulfide ¹	18496-25-8	mg/L	-	x	x	x	x	x	x	x	3	x	x	x	x
cyanide ¹	57-12-5	mg/L	0.2	<0.005	<0.005	<0.1	x	x	x	x	<0.005	x	x	x	x
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
total phenolics ¹	-	mg/L	0.005	0.0074	<0.003	<0.003	<0.003	<0.003	<0.003	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	(^^)	(^^)	(^^)	x	x	x	x	(^^)	x	x	x	x
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	0.00043	0.00034
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE)	75-35-4	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00031	<0.001
1,1-Dichloropropene ¹	563-58-6	mg/L	-	<0.001	x	x	x	x	x	x	<0.005	x	x	x	x
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	x	<0.00001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x	x
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	x	<0.001	x	x	x	x	x	<0.001	x	x	x	x
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.001	x	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	<0.001	<0.001	x	x	x	x	x	<0.01	<0.001	x	x	x
1,3-Dichloropropane ¹	142-28-9	mg/L	-	<0.001	<0.001	x	x	x	x	x	<0.01	x	x	x	x
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.001	<0.001	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001
2,2-Dichloropropane ¹	78-87-5	mg/L	-	<0.001	<0.001	x	x	x	x	x	<0.015	x	x	x	x
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-Chlorotoluene ¹	95-49-8	mg/L	-	x	<0.001	x									

APPENDIX B

Las Cruces Foothills Landfill MW-2

no sampling of MW-2 on 7/15/03 because pump was not working

Las Cruces Foothills Landfill monitoring well MW-2

constituent	CAS Number	unit	GWPS	RESU												
				9/25/02	12/18/02	12/29/03	12/2/04	12/14/05	12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/27/11	12/19/12	
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	x	x	x	x	x	x	x	<0.05	x	x	x	x
Isopropylbenzene ¹	98-82-8	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x	x	x
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	x	x	x	x	x	<0.005	x	x	x	x
Methyl iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.005	<0.005	<0.001	<0.04	<0.04	<0.04	<0.04	<0.04	<0.001	<0.01	<0.01	<0.01	<0.01
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	x	x	x	x	x	<0.03	x	x	x	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.0001	<0.001	<0.015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.015	0.0014	<0.001	<0.001	<0.001
n-Butylbenzene ¹	104-51-8	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x	x	x
Propionitrile ¹	107-12-0	mg/L	-	x	x	x	x	x	x	x	x	<0.06	x	x	x	x
Propylbenzene ¹	103-65-1	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x	x	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x	x	x
Styrene ¹	100-42-5	mg/L	0.1	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	x	<0.001	x	x	x	x	x	x	<0.001	x	x	x	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x	x	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0084	0.0073	0.0063	<0.0005	0.0058	0.0036	0.0034	0.0032	0.0049	0.0037	0.0034	0.0028	
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Toluene ¹	108-88-3	mg/L	0.75	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	0.0002	<0.001
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	0.00032	<0.002
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.001	<0.001	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.001	<0.001	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.01	<0.01	<0.01	<0.01
Trichloroethene (TCE) ¹	79-01-6	mg/L	0.005	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00072	<0.001
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	0.00059	<0.001
Vinyl acetate ¹	108-05-4	mg/L	-	<0.001	<0.001	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01
Vinyl Chloride ¹	75-01-4	mg/L	0.001	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Trihalomethanes (THM)																
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001
Chloroform ¹	67-66-3	mg/L	0.1	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001
Semi Volatile Organic Compounds																
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	<0.0001	<0.0001	<0.01	x	x	x	x	x	<0.001	x	x	x	x
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	x	x	<0.0002	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	<0.0001	<0.0001	<0.01	x	x	x	x	x	<0.001	x	x	x	x
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2-Picoline	109-06-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Acenaphthene ¹	83-32-9	mg/L	-	<0.0001	<0.0001	<0.0001	x	x	x	x	x	<0.00005	x	x	x	x
Acenaphthylene ¹	208-96-8	mg/L	-	<0.0001	<0.0001	x	x	x	x	x	x	<0.001	x	x	x	x
Acetophenone ¹	98-86-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	<0.0001	<0.0001	x	x	x	x	x	x	<0.001	x	x	x	x
Benzidine ¹	92-87-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	<0.0001	<0.0001	x	x	x	x	x	x	<0.001	x	x	x	x
Benzo (b) fluoranthene ¹	50-32-8	mg/L	0.0002	<0.0001	<0.0001	x	x	x	x	x	x	<0.001	x	x	x	x
Benzo (g,h,i) perylene ¹	205-99-2	mg/L	-	<0.0001	<0.0001	x	x	x	x	x	x	<0.00005	x	x	x	x
Benzo (k) fluoranthene ¹	191-24-2	mg/L	-	<0.0001	<0.0001	x	x	x	x	x	x	<0.00005	x	x	x	x
Benzo[a]pyrene ¹	207-08-9	mg/L	-	<0.0001	<0.0001	x	x	x	x	x	x	<0.00005	x	x	x	x
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
(bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Carbazole	86-74-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Chlorobenzilate ¹	510-15-6	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Chrysene ¹	218-01-9	mg/L	-	<0.0001	<0.0001	x	x	x	x	x	x	<0.00005	x	x	x	x

APPENDIX B

Las Cruces Foothills Landfill MW-2

no sampling of MW-2 on 7/15/03 because pump was not working

Las Cruces Foothills Landfill monitoring well MW-2

constituent	CAS Number	unit	GWPS	RESU													
				9/25/02	12/18/02	12/29/03	12/2/04	12/14/05	12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/27/11	12/19/12		
date																	
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
Naphthalene ¹	91-20-3	mg/L	0.03	<0.0001	<0.0001	<0.01	x	x	x	x	x	<0.001	x	x	x	x	
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
Phenanthrene ¹	85-01-8	mg/L	-	<0.0001	<0.0001	x	x	x	x	x	x	<0.001	x	x	x	x	
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
Pyrene ¹	129-00-0	mg/L	-	<0.0001	<0.0001	x	x	x	x	x	x	<0.001	x	x	x	x	
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	<0.0001	x	x	x	x	
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
sym-Trinitrobenzene ¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	x	<0.0001	x	x	x	x	
Semi Volatile Organic Compounds - Phenolics																	
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
Radium 226 and 228																	
Ra-226, total	NA	pCi/L	5	1.651	1.737	<2.5						0.24					
Ra-228 ¹ , total	NA	pCi/L	-	0.698	0.367	<2.5	x	x	x	x	x	0.2	x	x	x	x	
	NA	pCi/L	-	0.953	1.37	<2.5	x	x	x	x	x	0.04	x	x	x	x	
Chlorinated Pesticides																	
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x	
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x	
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x	
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x	
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x	
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x	
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	<0.0002	x	x	x	x	
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x	
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x	
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x	
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x	
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x	
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x	
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x	
gamma-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x	
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x	
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x	
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x	
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
Polychlorinated Biphenyls (PCBs)¹																	
Arochlor-1016	12674-11-2	mg/L	-	<0.0005	<0.0005	<0.0005	x	x	x	x	x	<0.00025	x	x	x	x	
Arochlor-1221	11104-28-2	mg/L	-	<0.0005	<0.0005	<0.0005	x	x	x	x	x	<0.00025	x	x	x	x	
Arochlor-1232	11141-16-5	mg/L	-	<0.0005	<0.0005	<0.0005	x	x	x	x	x	<0.00025	x	x	x	x	
Arochlor-1242	53469-21-9	mg/L	-	<0.0005	<0.0005	<0.0005	x	x	x	x	x	<0.00025	x	x	x	x	
Arochlor-1248	12672-29-6	mg/L	-	<0.0005	<0.0005	<0.0005	x	x	x	x	x	<0.00025	x	x	x	x	
Arochlor-1254	11097-69-1	mg/L	-	<0.0005	<0.0005	<0.0005	x	x	x	x	x	<0.00025	x	x	x	x	
Arochlor-1260	11096-82-5	mg/L	-	<0.0005	<0.0005	<0.0005	x	x	x	x	x	<0.00025	x	x	x	x	
Other Pesticides and Herbicides¹																	
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x	x	<0.000905	x	x	x	x	
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	x	x	x	x	<0.00005	x	x	x	x	
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	x	x	x	x	<0.00005	x	x	x	x	
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	x	x	x	x	<0.00005	x	x	x	x	
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	
Silvex ¹	93-72-1	mg/L	-	x	x	x	x	x	x	x	x	<0.00005	x	x	x	x	
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	

¹ hazardous

x parameter not analyzed

(*) See section entitled 'Semi volatile organic compounds - phenolics' for break-out of phenolics content

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

APPENDIX B
Las Cruces Foothills Landfill MW-2

Las Cruces Foothills Landfill monitoring well MW-2

constituent	CAS Number	unit	GWPS	LTS FOR MW-2										baseline	standard	
				6/25/13	12/19/13	6/26/14	12/11/14	6/18/15	12/17/15	12/27/16	6/27/17	12/12/17	6/20/18	1/12/99 to average	1/12/99 to deviation	
date																
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	x	x	x	<0.002	x	x	x	x	x	x	x	<1.0	x
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.1	x	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.25	x	x
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Semi Volatile Organic Compounds - Phenolics																
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	x	x	x	x	x	x	x
Radium 226 and 228	NA	pCi/L	5				1.26							9.15	17.19	
Ra-226, total	NA	pCi/L	-	x	x	x	0.532	x	x	x	x	x	x	3.32	6.81	
Ra-228 ¹ , total	NA	pCi/L	-	x	x	x	0.729	x	x	x	x	x	x	5.83	10.38	
Chlorinated Pesticides																
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4,4-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹																
Arochlor-1016	12674-11-2	mg/L	-	x	x	x	<0.00025	x	x	x	x	x	x	x	x	x
Arochlor-1221	11104-28-2	mg/L	-	x	x	x	<0.00025	x	x	x	x	x	x	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	x	x	x	<0.00025	x	x	x	x	x	x	x	x	x
Arochlor-1242	53469-21-9	mg/L	-	x	x	x	<0.00025	x	x	x	x	x	x	x	x	x
Arochlor-1248	12672-29-6	mg/L	-	x	x	x	<0.00025	x	x	x	x	x	x	x	x	x
Arochlor-1254	11097-69-1	mg/L	-	x	x	x	<0.00025	x	x	x	x	x	x	x	x	x
Arochlor-1260	11096-82-5	mg/L	-	x	x	x	<0.00025	x	x	x	x	x	x	x	x	x
Other Pesticides and Herbicides¹																
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Silvex ¹	93-72-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x

MW-3

APPENDIX B
Las Cruces Foothills Landfill MW-3

Las Cruces Foothills Landfill monitoring well MW-3

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-3											
				1/12/99	5/15/99	7/7/99	9/1/99	11/1/99	5/18/00	11/9/00	6/13/01	11/6/01	4/3/02	7/12/02	9/25/02
Field Parameters															
water level elevation		ft amsl	-	4048.02	4049.92	4052.42	4049.72	4051.02	4055.87	4051.52	4049.16	4046.66	4048.26	4048.53	4048.06
conductivity		µS/cm	-	1040	433	421	385	396	355	351	341	325	331	312	339
pH		pH units	6-9	7.85	8.15	7.35	7.29	6.60	8.10	8.22	8.39	8.23	6.86	7.49	6.83
temperature		deg F	-	76.0	77.0	84.0	75.9	76.6	77.0	76.5	75.8	71.1	77.5	78	77
Major Ions															
calcium	7440-70-2	mg/L	-	42.8	35.2	35.9	34.8	33.3	34.3	33.0	27.1	31.1	x	27	23
chloride	16887-00-6	mg/L	250	94.5	17.2	15.7	8.3	8.1	7.6	7.0	6.0	6.2	x	6.7	7.4
fluoride ¹	16984-48-8	mg/L	1.6	1.17	0.96	0.99	0.98	0.93	0.92	0.94	0.87	0.92	x	0.82	0.95
magnesium	7439-95-4	mg/L	-	5.1	4.2	4.1	4.0	5.0	3.9	4.1	3.4	4.8	x	3.9	3.5
potassium	7440-09-7	mg/L	-	4.0	1.5	2.8	1.7	1.4	2.1	1.9	1.6	2.2	x	1.8	1.7
sodium	82115-62-6	mg/L	-	179.0	53.2	51.4	35.3	38.5	38.1	39.0	40.2	25.6	x	35	38
sulfate	18785-72-3	mg/L	600	215	60	67	43	39	35	48	36	41	x	38	44
alkalinity	NA	mg/L	-	148.5	141.0	140.9	132.5	130.4	128.5	128.5	111.0	117.5	x	110	100
bicarbonate alkalinity	71-52-3	mg/L	-	181.2	141.0	172.0	161.7	147.0	156.8	156.8	113.5	122.6	x	110	99
carbonate alkalinity	3812-32-6	mg/L	-	<1.0	<1.0	<1.0	<1.0	6	0.0	0.0	10.8	10.2	x	1	x
total dissolved solids	NA	mg/L	1,000	706	279	289	235	233	232	207	193	181	x	200	210
Nitrogen Species															
ammonia as N	1331-21-6	mg/L	-	<0.01	0.02	0.35	0	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	<0.05
Kjeldahl nitrogen	7727-37-9	mg/L	-	0.2	0.1	1.2	0.2	<0.1	0.4	<0.1	<0.1	0.1	x	<0.050	<0.5
nitrate as N	14797-55-8	mg/L	10	0.06	0.33	0.52	0.79	0.9	0.83	1.07	0.88	1.00	x	1.1	1.2
nitrite	14797-65-0	mg/L	-	x	0.33	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x	<0.10	<0.1
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Metals															
aluminum	7429-90-5	mg/L	5.0	1.85	2.92	2.81	<0.05	0.14	<0.05	0.25	<0.05	0.19	x	0.27	0.11
antimony ¹	7440-36-0	mg/L	0.006	0.0009	0.0005	0.0028	0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.05	<0.050	0.004 (")
arsenic ¹	7440-38-2	mg/L	0.01	0.002	0.0027	0.0029	0.0014	0.0018	0.0019	0.0022	0.0025	0.0027	<0.005	<0.0050	<0.004
barium ¹	7440-39-3	mg/L	1.0	0.0756	0.067	0.1497	0.0309	0.0422	0.0289	0.0381	0.0257	0.0232	0.03	0.023	0.019
beryllium ¹	7440-41-7	mg/L	0.004	<0.0002	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.003	<0.0030	<0.001
boron	7440-42-8	mg/L	0.75	0.14	0.09	0.29	0.07	0.06	<0.01	0.03	0.02	<0.01	x	<0.10	0.042
cadmium ¹	7440-43-9	mg/L	0.005	0.0002	<0.0001	0.0002	<0.0001	<0.0001	<0.0001	0.0001	<0.0001	0.0005	<0.005	<0.0010	<0.001
chromium ¹	7440-47-3	mg/L	0.05	0.004	0.014	0.0172	0.0004	0.0051	0.0005	0.0083	0.0058	0.0098	0.007	0.009	0.013
cobalt ¹	7440-48-4	mg/L	0.05	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.010	<0.001
copper ¹	7440-50-8	mg/L	1.0	0.0083	0.037	0.0732	0.0022	0.0043	<0.04	0.0038	0.0128	0.0508	0.062	0.025	0.019
iron	7439-89-6	mg/L	1.0	1.74	2.45	4.54	<0.05	0.18	<0.01	0.59	0.14	0.39	x	0.28	0.12
lead ¹	7439-92-1	mg/L	0.05	0.001	0.008	0.0133	<0.0001	0.0015	<0.0001	0.0015	0.0061	0.0138	0.016	<0.0050	0.004
manganese	7439-96-5	mg/L	0.2	0.07	0.14	0.52	<0.02	0.04	<0.005	0.027	<0.005	<0.005	x	<0.010	0.004
mercury ¹	7439-97-6	mg/L	0.002	0.0002	<0.0002	<0.0002	0.0006	<0.0002	0.0003	<0.0002	<0.0002	0.0005	<0.0002	<0.00020	<0.07
molybdenum	7439-98-7	mg/L	1.0	<0.05	<0.05	<0.05	<0.05	<0.05	0.006	0.005	0.005	0.0045	x	<0.010	0.003
nickel ¹	7440-02-0	mg/L	0.2	0.067	0.028	0.06525	0.0042	0.00505	0.00309	0.00534	0.01105	0.03707	0.028	0.032	0.028
selenium ¹	7782-49-2	mg/L	0.05	0.0028	0.001	0.0001	0.001	0.0011	0.0017	0.0011	0.0017	0.0011	<0.01	<0.01	<0.003
silver ¹	7440-22-4	mg/L	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.05	<0.02	<0.005	<0.0050	<0.002
thallium ¹	7440-28-0	mg/L	0.002	0.000007	0.0001	0.00006	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	0.00041	<0.01	<0.010	<0.003
tin ¹	7440-31-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.01	x	x
uranium ¹	7440-61-1	mg/L	0.03	0.0225	0.013	0.01517	0.00555	0.00547	0.00272	0.00359	0.00399	0.00341	x	<0.02	0.00259
vanadium ¹	7440-62-2	mg/L	-	<0.05	<0.05	0.08	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.01	<0.010	0.01
zinc	7440-66-6	mg/L	10.0	0.26	0.11	0.22	<0.01	0.03	-	0.02	0.57	2.08	1.3	1	0.47
total organic carbon	-	mg/L	-	4.4	1.31	1.1	1.5	0.6	1.1	0.7	0.7	0.9	x	1	1.3
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
sulfide ¹	18496-25-8	mg/L	-	x	x	x	x	x	x	x	x	x	<1.0	x	x
cyanide ¹	57-12-5	mg/L	0.2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.005	<0.0050	<0.005
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	0.04	<0.005	<0.02	<0.003	<0.003	<0.003	0.006	0.02	0.004	(^)	0.004	0.0088
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	(^^)	(^^)	x
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane ¹	67-64-1	mg/L	-	x	x	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.01	<0.01
1,1,1-Trichloroethane ¹	630-20-6	mg/L	0.02	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
1,1,2,2-Tetrachloroethane ¹	71-56-6	mg/L	0.06	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
1,1,2-Trichloroethane ¹	79-34-5	mg/L	0.01	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
1,1-Dichloroethane ¹	79-00-5	mg/L	0.005	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-34-3	mg/L	0.025	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
1,1-Dichloropropene ¹	75-35-4	mg/L	0.005	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
1,2-Dibromo-3-chloropropane (DBCP) ¹	563-58-6	mg/L	-	x	x	x	x	x	x	x	x	x	<0.001	<0.001	<0.001
1,2,3-Trichlorobenzene	96-12-8	mg/L	0.0002	<0.01	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.00001	<0.001	<0.00001
1,2,3-Trichloropropane ¹	87-61-6	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001	x
1,2,4-Trichlorobenzene ¹	96-18-4	mg/L	0.01	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	120-82-1	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.02	<0.001	x
1,2-Dichloroethane (EDC) ¹	95-50-1	mg/L	0.6	x	x	x	x	x	x	x	x	x	<0.001	<0.001	<0.001
1,2-Dichloropropane ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	78-87-5	mg/L	0.005	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.001	<0.0002
1,3-Dichloropropane ¹															

APPENDIX B
Las Cruces Foothills Landfill MW-3

Las Cruces Foothills Landfill monitoring well MW-3

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-3												
				1/12/99	5/15/99	7/7/99	9/1/99	11/1/99	5/18/00	11/9/00	6/13/01	11/6/01	4/3/02	7/12/02	9/25/02	
date																
Dibromomethane (methylene bromide) ¹	74-95-3	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	0.0021	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Ethyl methacrylate ¹	97-63-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001	<0.001
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	0.00005	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.00001	<0.001	<0.00001	<0.00001
Hexachlorobutadiene ¹	87-68-3	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Isopropylbenzene ¹	98-82-8	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001	x	x
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Methyl iodide (Iodomethane) ¹	74-88-4	mg/L	-	x	x	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.002	<0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001	<0.001
n-Butylbenzene ¹	104-51-8	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001	x	x
Propionitrile ¹	107-12-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Propylbenzene ¹	103-65-1	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001	x	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001	x	x
Styrene ¹	100-42-5	mg/L	0.1	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001	<0.001
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	<0.001	x	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001	x	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0067	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.0005
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x	x	x
Toluene ¹	108-88-3	mg/L	0.75	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001	<0.001
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001	<0.002
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001	<0.001
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001	<0.001
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	x	x	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001
Trichloroethene (TCE)	79-01-6	mg/L	0.005	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001	<0.001
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001	<0.001
Vinyl acetate ¹	108-05-4	mg/L	-	x	x	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001
Vinyl Chloride ¹	75-01-4	mg/L	0.001	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0004	<0.001	<0.0004	<0.0004
Trihalomethanes (THM)																
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Chloroform ¹	67-66-3	mg/L	0.1	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001	<0.001
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001	<0.001
Semi Volatile Organic Compounds																
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.0001
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.0001
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2-Picoline	109-06-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Acenaphthene ¹	83-32-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001	<0.0001
Acenaphthylene ¹	208-96-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001	<0.0001
Acetophenone ¹	98-86-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001	<0.0001
Benzidine ¹	92-87-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001	<0.0001
Benzo (b) fluoranthene ¹	205-99-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001	<0.0001
Benzo (g,h,i) perylene ¹	191-24-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001	<0.0001
Benzo (k) fluoranthene ¹	207-08-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001	<0.0001
Benzo[a]pyrene ¹	50-32-8	mg/L	0.0002	0.0001	<0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.02	<0.0001	<0.0001	<0.0001
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
bis (2-Chloroisopropyl) ether (bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Carbazole	86-74-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Chlorobenzilate ¹	510-15-6	mg/L	-	x	x											

APPENDIX B
Las Cruces Foothills Landfill MW-3

Las Cruces Foothills Landfill monitoring well MW-3

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-3												
				1/12/99	5/15/99	7/7/99	9/1/99	11/1/99	5/18/00	11/9/00	6/13/01	11/6/01	4/3/02	7/12/02	9/25/02	
date																
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Fluoranthene ¹	206-44-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001
Fluorene ¹	86-73-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Hexachloroethane ¹	67-72-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
HMX ¹	2691-41-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001
Isophorone ¹	78-59-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Isosafrole ¹	120-58-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Methapyrilene ¹	91-80-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.02	<0.0001	<0.0001	
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	0.0001	<0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.02	<0.0001	<0.0001	
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	0.00025	<0.001	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.02	<0.0001	<0.0001	
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Semi Volatile Organic Compounds - Phenolics				x												
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.1	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.1	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.1	x	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.1	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.1	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	x	x	x	x	<0.00078	x	x
Radium 226 and 228	NA	pCi/L	5	5.72	2.77	12.00	1.22	0.90	0.66	0.61	0.26	0.33			1.057	1.936
Ra-226, total	NA	pCi/L	-	2.12	0.13	3.70	0.18	0.16	0.04	0.10	0.03	0.04	x		0.121	1.19
Ra-228 ¹ , total	NA	pCi/L	-	3.60	2.54	8.30	1.04	0.74	0.62	0.51	0.23	0.29	x		0.936	0.746
Chlorinated Pesticides																
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x
gamma-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.003	<0.000050	x
Polychlorinated Biphenyls (PCBs)¹		mg/L	0.001													
Arochlor-1016	12674-11-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005	<0.0005
Arochlor-1221	11104-28-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005	<0.0005
Arochlor-1232	11141-16-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005	<0.0005
Arochlor-1242	53469-21-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005	<0.0005
Arochlor-1248	12672-29-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005	<0.0005
Arochlor-1254	11097-69-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005	<0.0005
Arochlor-1260	11096-82-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005	<0.0005

APPENDIX B

Las Cruces Foothills Landfill MW-3

Las Cruces Foothills Landfill monitoring well MW-3

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-3												
				1/12/99	5/15/99	7/7/99	9/1/99	11/1/99	5/18/00	11/9/00	6/13/01	11/6/01	4/3/02	7/12/02	9/25/02	
date																
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.003	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x
Silvex ¹	93-72-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x
o,o-Diethyl o-pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x

¹ hazardous

x parameter not analyzed

(*) See section entitled 'Semi volatile organic compounds - phenolics' for break-out of phenolics concentrations.

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(*) This concentration attributed to laboratory contamination of method blank and not the presence of antimony in the ground water sampled.

(#) Scanned for and not detected , breaks down almost immediately in water.

APPENDIX B
Las Cruces Foothills Landfill MW-3

Las Cruces Foothills Landfill monitoring well MW-3

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-3											
				12/18/02	7/15/03	12/29/03	12/2/04	12/14/05	12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	5/18/11	12/27/11
Field Parameters															
water level elevation		ft amsl	-	4048.19	4048.08	4048.14	4048.07	4047.89	4044.77	4047.06	4046.86	4047.46	4045.52	4048.00	4047.33
conductivity		µS/cm	-	361	406	290	309	327	300	270	260	295	290	286	289
pH		pH units	6-9	6.87	8.22	8.30	8.05	8.40	8.70	8.56	8.51	7.55	8.29	8.46	8.25
temperature		deg F	-	74.5	81.0	72.5	74.8	67.6	74.8	72.3	60.8	74.7	pumped dry	70.9	67.1
Major Ions															
calcium	7440-70-2	mg/L	-	27	26.7	26	27	25	24	22	17	24	20	x	20
chloride	16887-00-6	mg/L	250	8.7	7	6.6	6.3	6	6.7	6.7	6.3	7	6.2	x	6.2
fluoride ¹	16984-48-8	mg/L	1.6	0.89	0.7	0.86	x	x	x	x	0.76	x	0.71	x	x
magnesium	7439-95-4	mg/L	-	4	3.8	3.5	4	4.2	4	4.2	3.3	4.4	3.6	x	3.5
potassium	7440-09-7	mg/L	-	1.8	1.9	1.4	1.5	2	1.1	1.8	1.4	1.7	1.7	x	1.8
sodium	82115-62-6	mg/L	-	37	34.6	30	31	35	33	33	30	32	35	x	33
sulfate	18785-72-3	mg/L	600	39	35	36	36	33	34	34	33	36	35	x	34
alkalinity	NA	mg/L	-	110	107	110	110	92	96	85	85	92	91	x	88
bicarbonate alkalinity	71-52-3	mg/L	-	110	105	110	110	92	94	81	83	93	91	x	87
carbonate alkalinity	3812-32-6	mg/L	-	x	<20	<2.0	<4.0	<2.0	2	4	2	<2.0	<2.0	x	<2.0
total dissolved solids	NA	mg/L	1,000	200	190	170	190	210	190	170	180	189	189	x	173
Nitrogen Species															
ammonia as N	1331-21-6	mg/L	-	<0.05	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50	<1.0	<1.0	x	<1.0
Kjeldahl nitrogen	7727-37-9	mg/L	-	<0.5	<1	<1.0	x	x	x	x	<1.0	x	x	x	x
nitrate as N	14797-55-8	mg/L	10	1.4	1	1.1	1	<1.0	<1.0	1	0.94	1.1	0.9	x	0.93
nitrite	14797-65-0	mg/L	-	<0.1	<0.1	1.1	x	x	x	x	x	x	x	x	x
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x	<1.0	x	x	x	x
Metals															
aluminum	7429-90-5	mg/L	5.0	0.16	0.08	<3.0	<3.0	x	x	x	0.04	x	0.085	x	x
antimony ¹	7440-36-0	mg/L	0.006	<0.004	<0.0004	<0.003	x	x	x	x	<0.001	<0.001	<0.001	x	<0.0025
arsenic ¹	7440-38-2	mg/L	0.01	<0.004	0.0021	<0.01	x	x	x	x	0.006	0.003	0.0017	x	0.0015
barium ¹	7440-39-3	mg/L	1.0	0.023	0.021	<0.02	x	x	x	x	0.014	0.024	0.014	x	0.013
beryllium ¹	7440-41-7	mg/L	0.004	<0.001	<0.0002	<0.002	x	x	x	x	<0.003	x	<0.001	x	0.00023
boron	7440-42-8	mg/L	0.75	0.04	<0.1	<0.5	x	x	x	x	<0.04	x	x	x	x
cadmium ¹	7440-43-9	mg/L	0.005	<0.001	0.0004	<0.002	x	x	x	x	<0.002	<0.002	<0.002	x	<0.002
chromium ¹	7440-47-3	mg/L	0.05	0.015	0.0165	<0.01	x	x	x	x	0.0083	0.017	0.013	x	0.0069
cobalt ¹	7440-48-4	mg/L	0.05	<0.001	0.00156	<0.03	x	x	x	x	<0.006	<0.006	<0.006	x	0.0004
copper ¹	7440-50-8	mg/L	1.0	0.028	0.0284	<0.06	x	x	x	x	0.017	0.029	0.041	x	0.0082
iron	7439-89-6	mg/L	1.0	0.17	<0.10	<0.1	0.13	0.18	<0.10	0.30	0.11	0.41	0.13	x	<0.02
lead ¹	7439-92-1	mg/L	0.05	0.003	0.0005	<0.01	x	x	x	x	<0.005	<0.005	<0.005	x	0.0018
manganese	7439-96-5	mg/L	0.2	0.007	<0.010	<0.03	<0.03	<0.03	<0.03	<0.03	0.0069	0.018	0.012	x	0.00043
mercury ¹	7439-97-6	mg/L	0.002	<0.2	<0.0002	<0.001	x	x	x	x	<0.0002	x	<0.0002	x	x
molybdenum	7439-98-7	mg/L	1.0	0.003	<0.010	<0.75	x	x	x	x	<0.008	x	<0.008	x	x
nickel ¹	7440-02-0	mg/L	0.2	0.029	0.06936	<0.05	x	x	x	x	0.016	0.022	0.021	x	0.0011
selenium ¹	7782-49-2	mg/L	0.05	<0.003	0.0012	<0.005	x	x	x	x	<0.001	<0.001	<0.001	x	<0.0025
silver ¹	7440-22-4	mg/L	0.05	<0.002	<0.010	<0.01	x	x	x	x	<0.005	<0.0050	<0.005	x	<0.005
thallium ¹	7440-28-0	mg/L	0.002	<0.003	0.00021	<0.001	x	x	x	x	<0.001	<0.001	<0.001	x	<0.0025
tin ¹	7440-31-5	mg/L	-	x	x	x	x	x	x	x	<0.1	x	x	x	x
uranium ¹	7440-61-1	mg/L	0.03	0.00238	0.002	<2.5	x	x	x	x	0.002	x	x	x	x
vanadium ¹	7440-62-2	mg/L	-	0.01	<0.050	<0.08	x	x	x	x	<0.05	<0.050	<0.05	x	0.0077
zinc	7440-66-6	mg/L	10.0	0.99	0.515	0.24	x	x	x	x	0.52	0.63	0.75	x	0.04
total organic carbon	-	mg/L	-	<1.0	1	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	x	0.26
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x	<0.50	x	<0.50	x	x
sulfide ¹	18496-25-8	mg/L	-	x	x	x	x	x	x	x	3	x	x	x	x
cyanide ¹	57-12-5	mg/L	0.2	<0.005	<0.01	<0.1	x	x	x	x	<0.005	x	x	x	x
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	0.00042	x
total phenolics ¹	-	mg/L	0.005	<0.003	<0.005	<0.003	<0.003	<0.003	<0.003	<0.0025	<0.0025	<0.0025	<0.0025	x	<0.0025
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	(^^)	(^^)	(^^)	x	x	x	x	(^^)	x	x	x	x
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane ¹	67-64-1	mg/L	-	<0.01	<0.025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.01	<0.01	x	<0.001
1,1,1-Trichloroethane ¹	630-20-6	mg/L	0.02	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	x	<0.001
1,1,2,2-Tetrachloroethane ¹	71-56-6	mg/L	0.06	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	x	<0.001
1,1,2-Trichloroethane ¹	79-34-5	mg/L	0.01	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	x	<0.001
1,1-Dichloroethane ¹	79-00-5	mg/L	0.005	<0.001	<0.0005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	x	<0.001
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-34-3	mg/L	0.025	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	x	<0.001
1,1-Dichloropropene ¹	75-35-4	mg/L	0.005	<0.001	<0.0005	<0.001	x	x	x	x	<0.005	x	x	x	x
1,2-Dibromo-3-chloropropane (DBCP) ¹	563-58-6	mg/L	-	x	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	<0.0001
1,2,3-Trichlorobenzene	96-12-8	mg/L	0.0002	<0.00001	<0.010	x	x	x	x	x	x	x	x	x	x
1,2,3-Trichloropropane ¹	87-61-6	mg/L	-	<0.001	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	x	<0.001
1,2,4-Trichlorobenzene ¹	96-18-4	mg/L	0.01	<0.001	<0.0005	x	x	x	x	x	<0.001	x	x	x	x
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	120-82-1	mg/L	-	<0.001	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	x	<0.001
1,2-Dichloroethane (EDC) ¹	95-50-1	mg/L	0.6	x	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	<0.001
1,2-Dichloropropane ¹	107-06-2	mg/L	0.005	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.0005
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	78-87-5	mg/L	0.005	<0.0002	<0.0005	x	x	x	x	x	<0.01	<0.001	x	x	x
1,3-Dichloropropane ¹	541-73-1	mg/L	-	<0.001	<0.0005	x	x	x	x	x	<0.01	x	x	x	x
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	142-28-9	mg/L	-	<0.001	<0.0005	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.001	<0.001	x	<0.001
2,2-Dichloropropane ¹	106-46-7	mg/L	0.075	<0.001	<0.0005	x	x	x	x	x	<0.015	x	x	x	x
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-87-5	mg/L	-	<0.001	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	x	<0.01
2-Chlorotoluene ¹	78-93-3	mg/L	-	<0.01	<0.025	x	x	x	x	x	x	x	x	x	x
2-Hexanone (Butyl Ketone) ¹	95-49-8	mg/L	-	<0.001	<0.0005	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	x	<0.01
4-Chlorotoluene ¹	78-93-3	mg/L	0.02	<0.01	<0.025	x	x	x	x						

APPENDIX B
Las Cruces Foothills Landfill MW-3

Las Cruces Foothills Landfill monitoring well MW-3

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-3											
				12/18/02	7/15/03	12/29/03	12/2/04	12/14/05	12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	5/18/11	12/27/11
Dibromomethane (methylene bromide) ¹	74-95-3	mg/L	-	<0.001	<0.0005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.001	<0.001	x	<0.001
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	<0.001	<0.0005	<0.005	x	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	x	<0.001
Ethyl methacrylate ¹	97-63-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x	x	x	x
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	x	<0.001
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	0.00005	<0.00001	<0.0005	<0.000025	<0.000025	<0.000025	<0.000025	<0.000025	<0.00001	<0.00001	<0.00001	x	<0.00001
Hexachlorobutadiene ¹	87-68-3	mg/L	-	<0.001	<0.0005	x	x	x	x	x	<0.001	x	x	x	x
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	x	x	x	x	x	x	<0.05	x	x	x	x
Isopropylbenzene ¹	98-82-8	mg/L	-	<0.001	<0.0005	x	x	x	x	x	x	x	x	x	x
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	x	x	x	x	<0.005	x	x	x	x
Methyl iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.005	<0.005	<0.001	<0.04	<0.04	<0.04	<0.04	<0.001	<0.01	<0.01	x	<0.01
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	x	x	x	x	<0.03	x	x	x	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.001	<0.0005	<0.015	<0.001	<0.001	<0.001	<0.001	<0.015	<0.001	<0.001	x	<0.001
n-Butylbenzene ¹	104-51-8	mg/L	-	<0.001	<0.0005	x	x	x	x	x	x	x	x	x	x
Propionitrile ¹	107-12-0	mg/L	-	x	x	x	x	x	x	x	<0.06	x	x	x	x
Propylbenzene ¹	103-65-1	mg/L	-	<0.001	<0.0005	x	x	x	x	x	x	x	x	x	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	<0.001	<0.0005	x	x	x	x	x	x	x	x	x	x
Styrene ¹	100-42-5	mg/L	0.1	<0.001	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	x	<0.001
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	<0.001	<0.005	x	x	x	x	x	<0.001	x	x	x	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	<0.001	<0.0005	x	x	x	x	x	x	x	x	x	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.0005
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	<0.010	x	x	x	x	x	x	x	x	x	x
Toluene ¹	108-88-3	mg/L	0.75	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	x	<0.001
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.002	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	x	<0.002
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.001	<0.0005	<0.005					<0.002	<0.001	<0.001	x	<0.001
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	x	<0.001
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.001	<0.010	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.001	<0.001	x	<0.001
Trichloroethene (TCE)	79-01-6	mg/L	0.005	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	<0.001
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	x	<0.001
Vinyl acetate ¹	108-05-4	mg/L	-	<0.001	<0.025	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	x	<0.01
Vinyl Chloride ¹	75-01-4	mg/L	0.001	<0.0004	<0.0005	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	x	<0.0004
Trihalomethanes (THM)															
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	x	<0.001
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.001	<0.001	x	<0.001
Chloroform ¹	67-66-3	mg/L	0.1	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	x	<0.001
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	x	<0.001
Semi Volatile Organic Compounds															
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	<0.0001	<0.005	<0.01	x	x	x	x	<0.001	x	x	x	x
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	x	<0.0002	x	x	<0.0002	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	<0.0001	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	<0.0002	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	<0.0001	<0.010	<0.01	x	x	x	x	<0.001	x	x	x	x
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
2-Picoline	109-06-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Acenaphthene ¹	83-32-9	mg/L	-	<0.0001	<0.005	<0.0001	x	x	x	x	<0.00005	x	x	x	x
Acenaphthylene ¹	208-96-8	mg/L	-	<0.0001	<0.005	x	x	x	x	x	<0.001	x	x	x	x
Acetophenone ¹	98-86-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	<0.0001	<0.005	x	x	x	x	x	<0.001	x	x	x	x
Benzidine ¹	92-87-5	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	<0.0001	<0.005	x	x	x	x	x	<0.001	x	x	x	x
Benzo (b) fluoranthene ¹	205-99-2	mg/L	-	<0.0001	<0.005	x	x	x	x	x	<0.00005	x	x	x	x
Benzo (g,h,i) perylene ¹	191-24-2	mg/L	-	<0.0001	<0.005	x	x	x	x	x	<0.00005	x	x	x	x
Benzo (k) fluoranthene ¹	207-08-9	mg/L	-	<0.0001	<0.005	x	x	x	x	x	<0.00005	x	x	x	x
Benzo[a]pyrene ¹	50-32-8	mg/L	0.0002	<0.0001	<0.005	x	x	x	x	x	<0.001	x	x	x	x
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
bis (2-Chloroisopropyl) ether															
(bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Carbazole	86-74-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Chlorobenzilate ¹	510-15-6	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Chrysene ¹	218-01-9	mg/L	-	<0.0001	<0.005	x	x	x	x	x	<0.00005	x	x	x	x
Diallate ¹	2303-16-4	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Dibenz(a,j)acridine	224-42-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	<0.0001	<0.005	x	x	x	x	x	<0.00005	x	x	x	x
Dibenzofuran ¹	132-64-9	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Diethylphthalate ¹	84-66-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Dimethylphthalate ¹	131-11-3	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x

APPENDIX B

Las Cruces Foothills Landfill MW-3

Las Cruces Foothills Landfill monitoring well MW-3

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-3												
				12/18/02	7/15/03	12/29/03	12/2/04	12/14/05	12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	5/18/11	12/27/11	
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Fluoranthene ¹	206-44-0	mg/L	-	<0.0001	<0.005	x	x	x	x	x	x	<0.001	x	x	x	x
Fluorene ¹	86-73-7	mg/L	-	<0.0001	<0.005	x	x	x	x	x	x	<0.001	x	x	x	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	x	x	x	x	x	x	x	<0.0001	x	x	x	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Hexachloroethane ¹	67-72-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
HMX ¹	2691-41-0	mg/L	-	x	x	x	x	x	x	x	x	<0.0001	x	x	<0.0001	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	<0.0001	<0.005	x	x	x	x	x	x	<0.00005	x	x	x	x
Isophorone ¹	78-59-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Isosafrole ¹	120-58-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	x	x	x	x	x	x	<0.0001	x	x	<0.0001	x
Methapyrilene ¹	91-80-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	<0.0001	<0.0005	<0.01	x	x	x	x	x	<0.001	x	x	x	x
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	<0.0001	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	<0.0001	<0.005	x	x	x	x	x	x	<0.001	x	x	x	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	<0.0001	<0.005	x	x	x	x	x	x	<0.001	x	x	x	x
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	<0.0001	x	x	<0.0001	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	x	<0.0001	x	x	<0.0001	x
Semi Volatile Organic Compounds - Phenolics																
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Radium 226 and 228	NA	pCi/L	5	0.0	0.6	<2.5						0.35				
Ra-226, total	NA	pCi/L	-	0.0	0.5	<2.5	x	x	x	x	x	0.03	x	x	x	x
Ra-228 ¹ , total	NA	pCi/L	-	0.0	0.1	<2.5	x	x	x	x	x	0.32	x	x	x	x
Chlorinated Pesticides																
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	<0.0002	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹																
Arochlor-1016	12674-11-2	mg/L	-	<0.0005	<0.0005	<0.0005	x	x	x	x	x	<0.00025	x	x	x	x
Arochlor-1221	11104-28-2	mg/L	-	<0.0005	<0.0005	<0.0005	x	x	x	x	x	<0.00025	x	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	<0.0005	<0.0005	<0.0005	x	x	x	x	x					

APPENDIX B

Las Cruces Foothills Landfill MW-3

Las Cruces Foothills Landfill monitoring well MW-3

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-3											
				12/18/02	7/15/03	12/29/03	12/2/04	12/14/05	12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	5/18/11	12/27/11
date															
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	x	x	x	x	<0.00005	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	x	x	x	x	<0.00005	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	x	x	x	x	<0.00005	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
Silvex ¹	93-72-1	mg/L	-	x	x	x	x	x	x	x	x	<0.00005	x	x	x
o,o-Diethyl o-pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x

¹ hazardous

x parameter not analyzed

(^*) See section entitled 'Semi volatile organic compounds - phenolics' for break-out of phenolics con

(^^) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(*) This concentration attributed to laboratory contamination of method blank and not the presence of

(#) Scanned for and not detected , breaks down almost immediately in water.

APPENDIX B
Las Cruces Foothills Landfill MW-3

Las Cruces Foothills Landfill monitoring well MW-3

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-3										baseline	standard
				6/19/12	12/19/12	6/25/13	12/19/13	6/26/14	12/11/14	6/18/15	12/17/15	6/16/16	12/11/17	average	deviation
date														1/12/99 to	1/12/99 to
														5/18/00	5/18/00
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Fluoranthene ¹	206-44-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Fluorene ¹	86-73-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Hexachloroethane ¹	67-72-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
HMX ¹	2691-41-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Isophorone ¹	78-59-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Isosafrole ¹	120-58-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Methapyrilene ¹	91-80-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	x	x	x	x	x	<0.002	x	x	x	x	0.001	x
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	0.0001	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	0.00025	x
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Semi Volatile Organic Compounds - Phenolics															
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	x	x	x	x	x	x
Radium 226 and 228	NA	pCi/L	5						0.641					3.88	3.88
Ra-226, total	NA	pCi/L	-	x	x	x	x	x	0.283	x	x	x	x	1.06	1.06
Ra-228 ¹ , total	NA	pCi/L	-	x	x	x	x	x	0.358	x	x	x	x	2.81	2.81
Chlorinated Pesticides															
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹		mg/L	0.001												
Arochlor-1016	12674-11-2	mg/L	-	x	x	x	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1221	11104-28-2	mg/L	-	x	x	x	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	x	x	x	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1242	53469-21-9	mg/L	-	x	x	x	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1248	12672-29-6	mg/L	-	x	x	x	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1254	11097-69-1	mg/L	-	x	x	x	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1260	11096-82-5	mg/L	-	x	x	x	x	x	<0.00025	x	x	x	x	x	x
Other Pesticides and Herbicides¹															
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x	x	x	x	x	x

APPENDIX B

Las Cruces Foothills Landfill MW-3

Las Cruces Foothills Landfill monitoring well MW-3

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-3										baseline	standard
				6/19/12	12/19/12	6/25/13	12/19/13	6/26/14	12/11/14	6/18/15	12/17/15	6/16/16	12/11/17	1/12/99 to 5/18/00	1/12/99 to 5/18/00
date															
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Silvex ¹	93-72-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x

¹ hazardous
x parameter not analyzed
(*) See section entitled 'Semi volatile organic compounds - phenolics' for break-out of phenolics con
(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.
(*) This concentration attributed to laboratory contamination of method blank and not the presence of
(#) Scanned for and not detected , breaks down almost immediately in water.

MW-4

APPENDIX B Las Cruces Foothills Landfill MW-4

Las Cruces Foothills Landfill monitoring well MW-4

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-4												
				1/12/99	5/11/99	7/7/99	9/1/99	11/1/99	5/18/00	11/9/00	6/13/01	11/6/01	4/3/02	7/12/02	9/25/02	12/18/02
Field Parameters																
water level elevation		ft amsl	-	3950.09	3945.49	3947.36	3947.78	3947.95	3945.52	3924.98	3944.79	3943.20	3942.52	3942.01	3941.25	3940.80
conductivity		µS/cm	-	414	415	434	486	478	445	461	501	491	522	500	551	578
pH		pH units	6-9	7.46	7.26	7.07	6.98	7.25	7.30	7.41	7.37	7.32	7.18	7.28	7.15	7.14
temperature		deg F	-	90.3	91.4	95	88.1	91.4	91.4	77.2	91.6	89.8	91.7	92.0	90.2	93.5
Major Ions																
calcium	7440-70-2	mg/L	-	54.5	51.9	53.5	54.2	57.2	61.0	61	68.1	71.3	x	69	70	72
chloride	16887-00-6	mg/L	250	6.3	6.4	5.9	5.6	6.2	6.1	5.9	6.0	6.3	x	7.2	7.7	10
fluoride ¹	16984-48-8	mg/L	1.6	0.68	0.68	0.62	0.65	0.61	0.60	0.58	0.52	0.55	x	0.47	0.52	0.49
magnesium	7439-95-4	mg/L	-	7.1	6.5	6.8	6.5	7	7.3	7.6	7.7	10.2	x	8.9	9	9.5
potassium	7440-09-7	mg/L	-	2.9	1.6	2.7	2.1	1.8	2.6	1.9	2.2	3.2	x	2.5	2.5	2.7
sodium	82115-62-6	mg/L	-	31.8	26.9	26.2	24.3	27.1	26.2	32	30.6	18.7	x	30	30	31
sulfate	18785-72-3	mg/L	600	31	32	35	31	31	33	32	32	33	x	35	41	35
alkalinity	NA	mg/L	-	175.4	178.5	179	183	182.5	189.4	196.4	207.5	218.0	x	230	240	240
bicarbonate alkalinity	71-52-3	mg/L	-	214.1	178.5	218.4	223.3	222.7	231.2	239.7	253.2	266.0	x	230	240	240
carbonate alkalinity	3812-32-6	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	0.0	0.0	0.0	0.0	x	1		x
total dissolved solids	NA	mg/L	1,000	267	276	264	261	274	281	276	289	286	x	320	350	320
Nitrogen Species																
ammonia as N	1331-21-6	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	<0.05	<0.05
Kjeldahl nitrogen	7727-37-9	mg/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	x	<0.050	<0.5	0.52
nitrate as N	14797-55-8	mg/L	10	0.91	1.02	0.98	0.99	1	0.92	0.99	0.86	1.01	x	1.1	1.2	1.3
nitrite	14797-65-0	mg/L	-	0.91	1.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x	<0.10	<0.1	<0.1
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Metals																
aluminum	7429-90-5	mg/L	5.0	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	<0.05	<0.05	<0.05	x	<0.10	<0.03	<0.03
antimony ¹	7440-36-0	mg/L	0.006	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.05	<0.050	0.007 (*)	<0.004
arsenic ¹	7440-38-2	mg/L	0.01	0.0008	0.0008	0.0008	0.0007	0.0009	0.001	0.0008	0.0008	0.0009	<0.005	<0.0050	<0.004	<0.004
barium ¹	7440-39-3	mg/L	1.0	0.045	0.049	0.0457	0.0451	0.0454	0.0468	0.0487	0.0576	0.0544	0.058	0.061	0.06	0.063
beryllium ¹	7440-41-7	mg/L	0.004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.003	<0.0030	<0.001	<0.001
boron	7440-42-8	mg/L	0.75	<0.01	0.03	0.06	0.06	0.06	<0.01	0.02	0.01	<0.01	x	<0.10	0.045	0.048
cadmium ¹	7440-43-9	mg/L	0.005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.005	<0.0010	<0.001	<0.001
chromium ¹	7440-47-3	mg/L	0.05	<0.0001	0.00014	0.0023	<0.0001	0.0032	<0.0001	0.0019	0.0015	0.0107	<0.005	<0.0050	<0.002	<0.002
cobalt ¹	7440-48-4	mg/L	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.010	<0.001	<0.001
copper ¹	7440-50-8	mg/L	1.0	0.0006	<0.0004	<0.0004	0.0008	<0.0004	<0.0004	<0.0004	0.0005	0.0007	<0.01	<0.010	0.001	0.001
iron	7439-89-6	mg/L	1.0	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	x	<0.10	<0.007	<0.007
lead ¹	7439-92-1	mg/L	0.05	0.0001	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	0.0011	0.0004	<0.005	<0.0050	<0.002	<0.002
manganese	7439-96-5	mg/L	0.2	<0.02	0.03	<0.02	<0.02	0.03	<0.005	0.009	<0.005	<0.005	x	<0.010	0.005	0.005
mercury ¹	7439-97-6	mg/L	0.002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.00020	<0.07	<0.2
molybdenum	7439-98-7	mg/L	1.0	<0.05	<0.05	<0.05	<0.05	<0.05	0.002	0.001	0.001	0.0011	x	<0.010	<0.002	<0.002
nickel ¹	7440-02-0	mg/L	0.2	0.0046	0.0028	0.0024	0.0027	0.00275	0.00216	0.00255	0.00238	0.00332	<0.005	<0.0050	<0.002	<0.002
selenium ¹	7782-49-2	mg/L	0.05	0.001	0.001	0.001	0.001	0.0011	0.0015	<0.001	0.0016	<0.001	<0.01	<0.010	<0.003	<0.003
silver ¹	7440-22-4	mg/L	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	<0.02	<0.005	<0.0050	<0.002	<0.002
thallium ¹	7440-28-0	mg/L	0.002	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	0.00013	<0.01	<0.02	<0.003	<0.003
tin ¹	7440-31-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.01	x	x	x
uranium ¹	7440-61-1	mg/L	0.03	0.0049	0.0052	0.00495	0.00505	0.00524	0.00571	0.00512	0.00728	0.00748	x	<0.02	0.00759	0.00766
vanadium ¹	7440-62-2	mg/L	-	<0.05	<0.05	0.08	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.01	<0.010	0.004	0.003
zinc	7440-66-6	mg/L	10.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.020	0.008	<0.008
total organic carbon	-	mg/L	-	<0.5	0.53	<0.5	0.6	<0.5	0.6	0.6	0.5	0.8	x	1.1	1	<1.0
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
sulfide ¹	18496-25-8	mg/L	-	x	x	x	x	x	x	x	x	x	<1.0	x	x	x
cyanide ¹	57-12-5	mg/L	0.2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.005	<0.0050	<0.005	<0.005
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	0.01	<0.005	<0.02	<0.003	<0.003	0.010	<0.003	0.003	0.001	(^)	0.0044	<0.003	<0.003
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	(^^)	(^^)	(^^)	(^^)
Volatile Organic Compounds																
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001	<0.001
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001	<0.001
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001	<0.001
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	0.001	0.0013	0.0012	0.001	0.001	0.0011	0.0013	0.0021	0.0022	0.004	0.0023	0.0021	0.0027
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE)	75-35-4	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001	<0.001
1,1-Dichloropropene ¹	563-58-6	mg/L	-	x	x	x	x	x	x	x	x	x	<0.001	<0.001	<0.001	x
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.01	<0.01	<0.0005	<0.0005	<0.0005	<0.00001	<0.00001	<0.0005	<0.0005	x	<0.001	<0.00001	<0.00001
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001	x	<0.001
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001	<0.001
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.02	<0.001	x	<0.001
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1															

APPENDIX B
Las Cruces Foothills Landfill MW-4

Las Cruces Foothills Landfill monitoring well MW-4

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-4													
				1/12/99	5/11/99	7/7/99	9/1/99	11/1/99	5/18/00	11/9/00	6/13/01	11/6/01	4/3/02	7/12/02	9/25/02	12/18/02	
Phenanthrene ¹	85-01-8	mg/L	-	<0.1	<0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.02	<0.0001	<0.0001	<0.0001
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	<0.25	<0.001	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.02	<0.0001	<0.0001	<0.0001
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Semi Volatile Organic Compounds - Phenolics																	
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.1	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.1	x	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.1	x	x	x
4-Chloro-3-methylphenol (p-Chloro-m-cresol) ¹	59-50-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.1	x	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.1	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	x	x	x	x	<0.00078	x	x	x
Radium 226 and 228																	
Ra-226, total	NA	pCi/L	5	1.15	1.43	1.74	1.79	1.34	0.72	1.64	0.89	1.14	x	3.114	1.648	2.564	
Ra-228 ¹ , total	NA	pCi/L	-	0.15	0.16	0.54	0.17	0.16	0.16	0.12	0.14	0.17	x	0.254	0.268	0.844	
	NA	pCi/L	-	1.00	1.27	1.2	1.62	1.18	0.56	1.52	0.75	0.97	x	2.86	1.38	1.72	
Chlorinated Pesticides																	
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x	x
4,4-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x	x
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x	x
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x	x
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x	x
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x	x
gamma-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.003	<0.00005	x	x
Polychlorinated Biphenyls (PCBs)¹																	
Arochlor-1016	12674-11-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005	<0.0005	<0.0005
Arochlor-1221	11104-28-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005	<0.0005	<0.0005
Arochlor-1232	11141-16-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005	<0.0005	<0.0005
Arochlor-1242	53469-21-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005	<0.0005	<0.0005
Arochlor-1248	12672-29-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005	<0.0005	<0.0005
Arochlor-1254	11097-69-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005	<0.0005	<0.0005
Arochlor-1260	11096-82-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005	<0.0005	<0.0005
Other Pesticides and Herbicides¹																	
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.003	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x	x
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x	x
Silvex ¹	93-72-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x

* baseline averages and standard deviations are based on 1999 and 2000 data only as per requirements in Environmental Protection, subpart 803. Ground Water Sampling and Analysis, 1995.

¹ hazardous

x parameter not analyzed

(*) See section entitled 'Semi volatile organic compounds - phenolics' for break-out of phenolics concentrations.

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(*) This concentration attributed to laboratory contamination of method blank and not the presence of antimony in the ground water sampled.

(#) Scanned for and not detected, breaks down almost immediately in water.

APPENDIX B

Las Cruces Foothills Landfill MW-4

*no sampling of MW-4 on 12/12/06 because pump was not working

Las Cruces Foothills Landfill monitoring well MW-4

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-4													
				7/15/03	12/29/03	12/2/04	12/14/05	6/21/07	1/18/08	12/23/08	12/29/09	12/29/10	12/27/11	6/19/12	12/19/12	6/25/13	12/19/13
Propylbenzene ¹	103-65-1	mg/L	-	<0.0005	x	x	x	x	x	x	x	x	x	x	x	x	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	<0.0005	x	x	x	x	x	x	x	x	x	x	x	x	x
Styrene ¹	100-42-5	mg/L	0.1	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	<0.005	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	<0.0005	x	x	x	x	x	x	x	x	x	x	x	x	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0076	0.0078	<0.0005	0.01	0.0091	0.0092	0.0088	0.011	0.011	0.010	0.0095	0.0095	0.011	0.011
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	<0.010	x	x	x	x	x	x	x	x	x	x	x	x	x
Toluene ¹	108-88-3	mg/L	0.75	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	0.00018	<0.001	<0.001	<0.001	<0.001
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	0.00085	<0.002	<0.002	<0.002	<0.002
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.0005	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	0.00039	<0.001	<0.001	<0.001	<0.001
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.010	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.002	0.002	<0.001	0.003	0.003	0.0033	0.0031	0.0033	0.0032	0.0036	0.0036	0.0024	0.0046	0.0033
Trichlorofluoromethane ¹	75-69-4	mg/L	-	0.0065	<0.01	<0.01	<0.01	<0.01	<0.01	0.0033	<0.001	0.0023	0.0013	0.0013	0.0016	0.0023	0.0019
Vinyl acetate ¹	108-05-4	mg/L	-	<0.025	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Vinyl Chloride ¹	75-01-4	mg/L	0.001	<0.0005	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	0.00045	<0.0004	0.00064	<0.0004	<0.0004	0.00048	<0.0004
Trihalomethanes (THM)																	
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroform ¹	67-66-3	mg/L	0.1	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Semi Volatile Organic Compounds																	
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	<0.005	<0.01	x	x	x	x	<0.001	x	x	x	x	x	x	x
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	<0.0002	x	x	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	<0.010	<0.01	x	x	x	x	<0.001	x	x	x	x	x	x	x
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
2-Picoline	109-06-8	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
Acenaphthene ¹	83-32-9	mg/L	-	<0.005	<0.0001	x	x	x	x	<0.00005	x	x	x	x	x	x	x
Acenaphthylene ¹	208-96-8	mg/L	-	<0.005	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
Acetophenone ¹	98-86-2	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	<0.005	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
Benzidine ¹	92-87-5	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	<0.005	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
Benzo (b) fluoranthene ¹	205-99-2	mg/L	-	<0.005	x	x	x	x	x	<0.00005	x	x	x	x	x	x	x
Benzo (g,h,l) perylene ¹	191-24-2	mg/L	-	<0.005	x	x	x	x	x	<0.00005	x	x	x	x	x	x	x
Benzo (k) fluoranthene ¹	207-08-9	mg/L	-	<0.005	x	x	x	x	x	<0.00005	x	x	x	x	x	x	x
Benzo[a]pyrene ¹	50-32-8	mg/L	0.0002	<0.005	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
(bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
Carbazole	86-74-8	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
Chlorobenzilate ¹	510-15-6	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
Chrysene ¹	218-01-9	mg/L	-	<0.005	x	x	x	x	x	<0.00005	x	x	x	x	x	x	x
Diallate ¹	2303-16-4	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
Dibenz(a,j)acridine	224-42-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	<0.005	x	x	x	x	x	<0.00005	x	x	x	x	x	x	x
Dibenzofuran ¹	132-64-9	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Diethylphthalate ¹	84-66-2	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x		

APPENDIX B

Las Cruces Foothills Landfill MW-4

*no sampling of MW-4 on 12/12/06 because pump was not working

Las Cruces Foothills Landfill monitoring well MW-4

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-4													
				7/15/03	12/29/03	12/2/04	12/14/05	6/21/07	1/18/08	12/23/08	12/29/09	12/29/10	12/27/11	6/19/12	12/19/12	6/25/13	12/19/13
Phenanthrene ¹	85-01-8	mg/L	-	<0.005	x	x	x	x	x	x	<0.001	x	x	x	x	x	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	<0.005	x	x	x	x	x	x	<0.001	x	x	x	x	x	x
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	<0.0001	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	<0.0001	x	x	x	x	x	x
Semi Volatile Organic Compounds - Phenolics																	
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x	x
4-Chloro-3-methylphenol (p-Chloro-m-cresol) ¹	59-50-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	x	<0.001	x	x	x	x	x	x
Radium 226 and 228																	
Ra-226, total	NA	pCi/L	5	0.8	<2.5	x	x	x	x	1.53							
Ra-228, total	NA	pCi/L	-	0.7	<2.5	x	x	x	x	0.13	x	x	x	x	x	x	x
	NA	pCi/L	-	0.1	<2.5	x	x	x	x	1.4	x	x	x	x	x	x	x
Chlorinated Pesticides																	
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	x	x	x	<0.00004	x	x	x	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	x	x	<0.00004	x	x	x	x	x	x	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	x	<0.00004	x	x	x	x	x	x	x
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	x	<0.00004	x	x	x	x	x	x	x
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	x	<0.00004	x	x	x	x	x	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	x	<0.00004	x	x	x	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	<0.00002	x	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	<0.00004	x	x	x	x	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	x	<0.00004	x	x	x	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	x	<0.00004	x	x	x	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	<0.00004	x	x	x	x	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	x	<0.00004	x	x	x	x	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	<0.00004	x	x	x	x	x	x	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x	<0.00004	x	x	x	x	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	<0.00004	x	x	x	x	x	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	x	x	x	<0.00004	x	x	x	x	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	x	x	x	<0.00004	x	x	x	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	x	x	<0.00004	x	x	x	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹				mg/L	0.001												
Arochlor-1016	12674-11-2	mg/L	-	<0.0005	<0.0005	x	x	x	x	<0.00025	x	x	x	x	x	x	x
Arochlor-1221	11104-28-2	mg/L	-	<0.0005	<0.0005	x	x	x	x	<0.00025	x	x	x	x	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	<0.0005	<0.0005	x	x	x	x	<0.00025	x	x	x	x	x	x	x
Arochlor-1242	53469-21-9	mg/L	-	<0.0005	<0.0005	x	x	x	x	<0.00025	x	x	x	x	x	x	x
Arochlor-1248	12672-29-6	mg/L	-	<0.0005	<0.0005	x	x	x	x	<0.00025	x	x	x	x	x	x	x
Arochlor-1254	11097-69-1	mg/L	-	<0.0005	<0.0005	x	x	x	x	<0.00025	x	x	x	x	x	x	x
Arochlor-1260	11096-82-5	mg/L	-	<0.0005	<0.0005	x	x	x	x	<0.00025	x	x	x	x	x	x	x
Other Pesticides and Herbicides¹																	
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	<0.00130	x	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	x	x	<0.00005	x	x	x	x	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	x	x	<0.00005	x	x	x	x	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	x	x	<0.00005	x	x	x	x	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x
Silvex ¹	93-72-1	mg/L	-	x	x	x	x	x	x	<0.00005	x	x	x	x	x	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x	<0.001	x	x	x	x	x	x	x

* baseline averages and standard deviations are based on 1999 and 2000 data only as per requirement:

¹ hazardous

x parameter not analyzed

(*) See section entitled 'Semi volatile organic compounds - phenolics' for break-out of phenolics concent

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(*) This concentration attributed to laboratory contamination of method blank and not the presence of ant

(#) Scanned for and not detected, breaks down almost immediately in water.

APPENDIX B
Las Cruces Foothills Landfill MW-4

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-4										baseline	standard	
				6/26/14	12/11/14	6/18/15	12/17/15	6/16/16	12/27/16	6/28/17	12/6/17	6/27/18	12/12/18	average	deviation	
date																
Phenanthrene ¹	85-01-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	<0.1	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	<0.25	x
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Semi Volatile Organic Compounds - Phenolics																
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	08-39-4/106-44	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4-Chloro-3-methylphenol (p-Chloro-m-cresol) ¹	59-50-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	x	x	x	x	x	x	x
Radium 226 and 228	NA	pCi/L	5		1.73										1.36	0.397
Ra-226, total	NA	pCi/L	-	x	0.548	x	x	x	x	x	x	x	x	x	0.223	0.155
Ra-228 ¹ , total	NA	pCi/L	-	x	1.18	x	x	x	x	x	x	x	x	x	1.138	0.349
Chlorinated Pesticides																
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Kepon ¹	143-50-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹																
Arochlor-1016	12674-11-2	mg/L	-	x	<0.00025	x	x	x	x	x	x	x	x	x	x	x
Arochlor-1221	11104-28-2	mg/L	-	x	<0.00025	x	x	x	x	x	x	x	x	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	x	<0.00025	x	x	x	x	x	x	x	x	x	x	x
Arochlor-1242	53469-21-9	mg/L	-	x	<0.00025	x	x	x	x	x	x	x	x	x	x	x
Arochlor-1248	12672-29-6	mg/L	-	x	<0.00025	x	x	x	x	x	x	x	x	x	x	x
Arochlor-1254	11097-69-1	mg/L	-	x	<0.00025	x	x	x	x	x	x	x	x	x	x	x
Arochlor-1260	11096-82-5	mg/L	-	x	<0.00025	x	x	x	x	x	x	x	x	x	x	x
Other Pesticides and Herbicides¹																
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Silvex ¹	93-72-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x

¹ baseline averages and standard deviations are based on 1999 and 2000 data only as per requirement

¹ hazardous

x parameter not analyzed

(*) See section entitled 'Semi volatile organic compounds - phenolics' for break-out of phenolics content

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(#) This concentration attributed to laboratory contamination of method blank and not the presence of ant

(#) Scanned for and not detected, breaks down almost immediately in water.

MW-5

APPENDIX B
Las Cruces Foothills Landfill MW-5

Las Cruces Foothills Landfill monitoring well MW-5

Constituent	CAS Number	unit	GWPS	RESULTS FOR MW-5							
				7/15/03	8/27/03	9/29/03	10/29/03	11/25/03	12/29/03	12/2/04	12/14/05
Field Parameters											
water level elevation		ft amsl	-	3830.57	3830.29	3830.57	3830.69	3830.84	3831.01	3831.29	3831.96
conductivity		µS/cm	-	552	370	410	420	410	400	419	472
pH		pH units	6-9	7.83	7.90	7.60	7.80	7.80	7.60	8.19	7.90
temperature		deg F	-	114.8	111.2	106.2	107.6	108.0	107.4	113.7	102.0
Major Ions											
calcium	7440-70-2	mg/L	-	34.1	34	33	34	35	35	34	39
chloride	16887-00-6	mg/L	250	30	34	36	37	35	35	28	32
fluoride ¹	16984-48-8	mg/L	1.6	0.5	0.6	0.6	0.6	0.6	0.6	x	x
magnesium	7439-95-4	mg/L	-	4.72	4.3	4.4	4.3	4.4	4.7	4.6	5.2
potassium	7440-09-7	mg/L	-	2.9	2.2	2.4	2.4	2.4	2.2	2.2	2.8
sodium	82115-62-6	mg/L	-	47.3	45	42	45	45	42	42	50
sulfate	18785-72-3	mg/L	600	42	42	44	46	43	44	43	41
alkalinity	NA	mg/L	-	116	120	130	120	120	120	120	120
bicarbonate alkalinity	71-52-3	mg/L	-	115	120	130	120	120	120	120	120
carbonate alkalinity	3812-32-6	mg/L	-	<20	<2	<2.0	<2.0	<2.0	<2.0	<4.0	<2.0
total dissolved solids	NA	mg/L	1,000	270	280	270	280	300	260	270	300
Nitrogen Species											
ammonia as N	1331-21-6	mg/L	-	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Kjeldahl nitrogen	7727-37-9	mg/L	-	<1	<1.0	<1.0	<1.0	<1.0	<1.0	x	x
nitrate as N	14797-55-8	mg/L	10	2.3	2	2.1	2.1	2.0	2.2	2.4	2.3
nitrite	14797-65-0	mg/L	-	<0.1	2	2.1	2.1	2.0	2.2	x	x
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x	x
Metals											
aluminum	7429-90-5	mg/L	5.0	0.54	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	x
antimony ¹	7440-36-0	mg/L	0.006	<0.0004	<0.003	<0.003	<0.003	<0.003	<0.003	x	x
arsenic ¹	7440-38-2	mg/L	0.01	0.0026	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
barium ¹	7440-39-3	mg/L	1.0	0.0649	0.06	0.06	0.05	0.06	0.06	x	x
beryllium ¹	7440-41-7	mg/L	0.004	<0.0002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x
boron	7440-42-8	mg/L	0.75	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	x	x
cadmium ¹	7440-43-9	mg/L	0.005	<0.0001	<0.002	<0.002	<0.002	<0.002	<0.002	x	x
chromium ¹	7440-47-3	mg/L	0.05	0.0037	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
cobalt ¹	7440-48-4	mg/L	0.05	0.00012	<0.03	<0.03	<0.03	<0.03	<0.03	x	x
copper ¹	7440-50-8	mg/L	1.0	0.0009	<0.06	<0.06	<0.06	<0.06	<0.06	x	x
iron	7439-89-6	mg/L	1.0	0.45	<0.1	<0.1	<0.1	<0.1	<0.1	x	<0.1
lead ¹	7439-92-1	mg/L	0.05	0.0004	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
manganese	7439-96-5	mg/L	0.2	<0.010	<0.03	<0.03	<0.03	<0.03	<0.03	x	<0.03
mercury ¹	7439-97-6	mg/L	0.002	<0.0002	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
molybdenum	7439-98-7	mg/L	1.0	<0.010	<0.75	<0.75	<0.75	<0.75	<0.75	x	x
nickel ¹	7440-02-0	mg/L	0.2	0.00171	<0.05	<0.05	<0.05	<0.05	<0.05	x	x
selenium ¹	7782-49-2	mg/L	0.05	0.0021	<0.005	<0.005	<0.005	<0.005	<0.005	x	x
silver ¹	7440-22-4	mg/L	0.05	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
thallium ¹	7440-28-0	mg/L	0.002	0.00005	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
tin ¹	7440-31-5	mg/L	-	<0.10	x	x	x	x	<0.4	x	x
uranium ¹	7440-61-1	mg/L	0.03	<0.002	<2.5	<2.5	<2.5	<2.5	<2.5	x	x
vanadium ¹	7440-62-2	mg/L	-	<0.050	<0.08	<0.08	<0.08	<0.08	<0.08	x	x
zinc	7440-66-6	mg/L	10.0	0.024	<0.05	<0.05	<0.05	<0.05	<0.05	x	x
total organic carbon	-	mg/L	-	1	<1.0	<1.0	<1.0	<0.5	0.51	<0.5	<0.5
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x	x
sulfide ¹	18496-25-8	mg/L	-	<0.1	x	x	x	x	<4.0	x	x
cyanide ¹	57-12-5	mg/L	0.2	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	x	x
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	(^^)	(^^)	(^^)	(^^)	(^^)	(^^)	x	x
Volatile Organic Compounds											
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.0005	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.0005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
1,1-Dichloropropene ¹	563-58-6	mg/L	-	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	x	x
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.01	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	<0.0005	x	x	x	x	x	x	x
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	<0.0005	x	x	x	x	x	x	x
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
1,3-Dichloropropane ¹	142-28-9	mg/L	-	<0.0005	<0.005	<0.01	<0.01	<0.01	<0.01	x	x
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.0005	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
2,2-Dichloropropane ¹	78-87-5	mg/L	-	<0.0005	<0.0151	<0.015	<0.015	<0.015	<0.015	x	x
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.025	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-Chlorotoluene ¹	95-49-8	mg/L	-	<0.0005	x	x	x	x	x	x	x
2-Hexanone (Butyl Ketone) ¹	78-93-3	mg/L	0.02	<0.025	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
4-Chlorotoluene ¹	106-43-4	mg/L	-	<0.0005	x	x	x	x	x	x	x
4-Methyl-2-pentanone ¹	108-10-1	mg/L	-	<0.025	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
Acetone ¹	67-64-1	mg/L	-	<0.025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acetonitrile ¹	75-05-8	mg/L	-	<0.100	<0.100	<0.1	<0.1	<0.1	<0.1	x	x
Acrolein ¹	107-02-8	mg/L	-	<0.025	<0.1	<0.1	<0.1	<0.1	<0.1	x	x
Acrylonitrile ¹	107-13-1	mg/L	-	<0.025	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Allyl chloride ¹	107-05-1	mg/L	-	x	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Benzene ¹	71-43-2	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

APPENDIX B
Las Cruces Foothills Landfill MW-5

Las Cruces Foothills Landfill monitoring well MW-5

Constituent	CAS Number	unit	GWPS	RESULTS FOR MW-5								
				7/15/03	8/27/03	9/29/03	10/29/03	11/25/03	12/29/03	12/2/04	12/14/05	
date												
Benzo (k) fluoranthene ¹	50-32-8	mg/L	0.0002	<0.005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x
Benzoic acid ¹	65-85-0	mg/L	-	<0.05	x	x	x	x	x	x	x	x
Benzyl alcohol ¹	100-51-6	mg/L	-	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
bis (2-Chloroisopropyl) ether (bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	<0.005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Carbazole	86-74-8	mg/L	-	<0.005	x	x	x	x	x	x	x	x
Chlorobenzilate ¹	510-15-6	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Chrysene ¹	218-01-9	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Diallate ¹	2303-16-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Dibenz (a,j) acridine	224-42-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Dibenzofuran ¹	132-64-9	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x	x	x	x
Diethylphthalate ¹	84-66-2	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Dimethylphthalate ¹	131-11-3	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Di-n-octylphthalate ¹	117-84-0	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Diphenylamine ¹	122-39-4	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Fluoranthene ¹	206-44-0	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Fluorene ¹	86-73-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Hexachloroethane ¹	67-72-1	mg/L	-	<0.005	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x	x
Hexachloropropene ¹	1888-71-7	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
HMX ¹	2691-41-0	mg/L	-	x	x	x	x	x	x	x	x	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Isophorone ¹	78-59-1	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Isosafrole ¹	120-58-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Methapyrilene ¹	91-80-5	mg/L	-	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Nitrobenzene ¹	98-95-3	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	<0.02	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	x	x
o-Toluidine ¹	95-53-4	mg/L	-	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Phenacetin ¹	62-44-2	mg/L	-	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Phenanthrene ¹	85-01-8	mg/L	-	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Pronamide ¹	23950-58-5	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Pyrene ¹	129-00-0	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Pyridine	110-86-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
sym-Trinitrobenzene ¹ (1,3,5-TNB)	99-35-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Semi Volatile Organic Compounds - Phenolics												
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	<0.005	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x	x	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	<0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
Radium 226 and 228	NA	pCi/L	5	1.0								
Ra-226, total	NA	pCi/L	-	0.6	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	x	x
Ra-228, total	NA	pCi/L	-	0.4	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	x	x
Chlorinated Pesticides												
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
aldrin ¹	309-00-2	mg/L	-	<0.0001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x

APPENDIX B
Las Cruces Foothills Landfill MW-5

Las Cruces Foothills Landfill monitoring well MW-5

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-5								
				7/15/03	8/27/03	9/29/03	10/29/03	11/25/03	12/29/03	12/2/04	12/14/05	
date												
alpha-BHC ¹	319-84-6	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	<0.0001	alpha +	alpha +	alpha +	alpha +	alpha +	alpha +	x	x
beta-BHC ¹	319-85-7	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x
Dieldrin ¹	60-57-1	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Endrin ketone	53494-70-5	mg/L	-	<0.00002	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
gamma-BHC ¹	319-86-8	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	<0.0001	see above	see above	see above	see above	see above	see above	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Heptachlor ¹	76-44-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Isodrin ¹	465-73-6	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Kepone ¹	143-50-0	mg/L	-	<0.025	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Methoxychlor ¹	72-43-5	mg/L	-	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Toxaphene ¹	8001-35-2	mg/L	-	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Polychlorinated Biphenyls (PCBs)¹			0.001									
Arochlor-1016	12674-11-2	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Arochlor-1221	11104-28-2	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Arochlor-1232	11141-16-5	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Arochlor-1242	53469-21-9	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Arochlor-1248	12672-29-6	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Arochlor-1254	11097-69-1	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Arochlor-1260	11096-82-5	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Other Pesticides and Herbicides¹												
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Dimethoate ¹	60-51-5	mg/L	-	<0.0005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Dinoseb ¹	88-85-7	mg/L	-	<0.005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Disulfoton ¹	298-04-4	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Famphur ¹	52-58-7	mg/L	-	<0.0005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Methyl parathion ¹	298-00-0	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Phorate ¹	298-02-2	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Silvex ¹ (2,4,5-TP)	93-72-1	mg/L	-	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x

* baseline averages and standard deviations are based on 1999 and 2000 data only as per requirements in Environmental Protection, subpart 803. Ground Water Sampling and Analysis, 1995.

¹ hazardous

x parameter not analyzed

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(#) Scanned for and not detected, breaks down almost immediately in water.

APPENDIX B
Las Cruces Foothills Landfill MW-5

Las Cruces Foothills Landfill monitoring well MW-5

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-5								
				12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/20/12	6/26/13
Field Parameters												
water level elevation		ft amsl	-	3832.49	3834.95	3837.62	3838.38	3844.08	3843.72	3843.47	3841.11	3841.15
conductivity		µS/cm	-	430	430	410	539	500	468	420	440	440
pH		pH units	6-9	7.70	7.46	7.82	7.40	7.67	7.28	7.43	7.23	6.92
temperature		deg F	-	108.0	97.3	104.2	95.7	104.9	100.6	83.3	91.4	111.0
Major Ions												
calcium	7440-70-2	mg/L	-	37	37	31	36	41	37	34	36	34
chloride	16887-00-6	mg/L	250	32	29	28	27	35	28	26	26	26
fluoride ¹	16984-48-8	mg/L	1.6	x	x	0.59	x	0.58	x	x	x	x
magnesium	7439-95-4	mg/L	-	5	5	4.3	4.8	5.6	4.9	4.8	4.8	4.4
potassium	7440-09-7	mg/L	-	2.8	2.5	2.1	2.4	2.6	2.5	2.6	2.5	2.5
sodium	82115-62-6	mg/L	-	48	46	41	44	51	46	47	48	45
sulfate	18785-72-3	mg/L	600	43	43	41	46	48	47	47	45	46
alkalinity	NA	mg/L	-	110	110	120	110	120	120	120	110	110
bicarbonate alkalinity	71-52-3	mg/L	-	110	110	120	110	120	120	120	110	110
carbonate alkalinity	3812-32-6	mg/L	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
total dissolved solids	NA	mg/L	1,000	290	280	280	272	310	289	288	274	289
Nitrogen Species												
ammonia as N	1331-21-6	mg/L	-	<0.5	<0.5	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Kjeldahl nitrogen	7727-37-9	mg/L	-	x	x	<1.0	x	x	x	x	x	x
nitrate as N	14797-55-8	mg/L	10	3	2.8	2.7	3.3	2.8	3.4	3.4	3.4	3.6
nitrite	14797-65-0	mg/L	-	x	x	x	x	x	x	x	x	x
total nitrogen	-	mg/L	-	x	x	2.7	x	x	x	x	x	x
Metals												
aluminum	7429-90-5	mg/L	5.0	x	x	<0.02	x	0.02	x	x	x	x
antimony ¹	7440-36-0	mg/L	0.006	x	x	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
arsenic ¹	7440-38-2	mg/L	0.01	x	x	0.008	0.004	0.00187	0.002	0.0021	0.0019	0.0027
barium ¹	7440-39-3	mg/L	1.0	x	x	0.054	0.057	0.067	0.059	0.061	0.057	0.059
beryllium ¹	7440-41-7	mg/L	0.004	x	x	<0.003	x	<0.001	0.0003	<0.002	<0.002	<0.002
boron	7440-42-8	mg/L	0.75	x	x	0.041	x	0.047	x	x	x	x
cadmium ¹	7440-43-9	mg/L	0.005	x	x	<0.002	<0.0020	<0.002	<0.002	<0.002	<0.002	<0.002
chromium ¹	7440-47-3	mg/L	0.05	x	x	<0.006	0.026	<0.006	0.00062	<0.006	<0.006	<0.006
cobalt ¹	7440-48-4	mg/L	0.05	x	x	<0.006	<0.0060	<0.006	0.00081	<0.006	<0.006	<0.006
copper ¹	7440-50-8	mg/L	1.0	x	x	<0.006	<0.0060	<0.006	<0.006	<0.006	<0.006	<0.006
iron	7439-89-6	mg/L	1.0	<0.1	<0.1	<0.05	0.31	<0.05	<0.02	0.028	<0.02	<0.02
lead ¹	7439-92-1	mg/L	0.05	x	x	<0.005	<0.0050	<0.005	<0.005	<0.005	<0.005	<0.001
manganese	7439-96-5	mg/L	0.2	<0.03	<0.03	<0.002	0.0045	<0.002	0.00035	<0.002	<0.002	<0.002
mercury ¹	7439-97-6	mg/L	0.002	x	x	<0.0002	x	<0.0002	x	x	x	x
molybdenum	7439-98-7	mg/L	1.0	x	x	<0.008	x	<0.008	x	x	x	x
nickel ¹	7440-02-0	mg/L	0.2	x	x	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01
selenium ¹	7782-49-2	mg/L	0.05	x	x	0.001	<0.001	<0.001	0.0012	0.0015	<0.001	0.0022
silver ¹	7440-22-4	mg/L	0.05	x	x	<0.005	<0.0050	<0.005	<0.005	<0.005	<0.005	<0.005
thallium ¹	7440-28-0	mg/L	0.002	x	x	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
tin ¹	7440-31-5	mg/L	-	x	x	<0.1	x	x	x	x	x	x
uranium ¹	7440-61-1	mg/L	0.03	x	x	0.002	x	x	x	x	x	x
vanadium ¹	7440-62-2	mg/L	-	x	x	<0.05	<0.050	<0.05	0.0088	<0.05	<0.05	<0.05
zinc	7440-66-6	mg/L	10.0	x	x	<0.02	<0.020	<0.02	0.00064	<0.01	<0.01	<0.01
total organic carbon	-	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.1
phosphate	14265-44-2	mg/L	-	x	x	<0.50	x	<0.50	x	x	x	x
sulfide ¹	18496-25-8	mg/L	-	x	x	2	x	x	x	x	x	x
cyanide ¹	57-12-5	mg/L	0.2	x	x	<0.005	x	x	x	x	x	x
perchlorate ¹	14797-73-0	mg/L	-	x	x	<0.001	x	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	<0.003	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	x	x	(^^)	x	x	x	x	x	x
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	x	x	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloropropene ¹	563-58-6	mg/L	-	x	x	<0.005	x	x	x	x	x	x
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	x	x	x	x	x	x	x	x	x
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	x	x	<0.001	<0.001	x	x	x	x	x
1,3-Dichloropropane ¹	142-28-9	mg/L	-	x	x	<0.01	x	x	x	x	x	x
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2,2-Dichloropropane ¹	78-87-5	mg/L	-	x	x	<0.015	x	x	x	x	x	x
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-Chlorotoluene ¹	95-49-8	mg/L	-	x	x	x	x	x	x	x	x	x
2-Hexanone (Butyl Ketone) ¹	78-93-3	mg/L	0.02	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4-Chlorotoluene ¹	106-43-4	mg/L	-	x	x	x	x	x	x	x	x	x
4-Methyl-2-pentanone ¹	108-10-1	mg/L	-	<0.015	<0.015	<0.015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acetone ¹	67-64-1	mg/L	-	<0.1	<0.1	<0.1	<0.01	<0.01	0.0021	<0.01	<0.01	<0.01
Acetonitrile ¹	75-05-8	mg/L	-	x	x	<0.1	x	x	x	x	x	x
Acrolein ¹	107-02-8	mg/L	-	x	x	<0.1	x	x	x	x	x	x
Acrylonitrile ¹	107-13-1	mg/L	-	<0.2	<0.2	<0.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Allyl chloride ¹	107-05-1	mg/L	-	x	x	<0.01	x	x	x	x	x	x
Benzene ¹	71-43-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

APPENDIX B
Las Cruces Foothills Landfill MW-5

Las Cruces Foothills Landfill monitoring well MW-5

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-5								
				12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/20/12	6/26/13
date												
Bis(chloromethyl) ether ¹	542-88-1	mg/L	-	x	x	(#)	x	x	x	x	x	x
Bromochloromethane ¹	74-97-5	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Bromomethane (methyl bromide) ¹	74-83-9	mg/L	-	<0.02	<0.02	<0.02	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Carbon Disulfide ¹	75-15-00	mg/L	-	<0.1	<0.1	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Carbon Tetrachloride ¹	56-23-5	mg/L	0.005	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chlorobenzene ¹	108-90-7	mg/L	0.1	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroethane ¹	75-03-3	mg/L	-	<0.01	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chloromethane (methyl chloride) ¹	74-87-3	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroprene (2-Chloro-1,3-butadiene) ¹	126-99-8	mg/L	-	x	x	x	x	x	x	x	x	x
cis-1,2-Dichloroethylene (cis-1,2-Dichloroethene) ¹	156-59-2	mg/L	0.07	<0.005	<0.005	<0.005	<0.001	<0.001	0.00028	<0.001	<0.001	<0.001
cis-1,3-Dichloropropene ¹	542-75-6	mg/L	-	x	x	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dibromomethane (methylene bromide) ¹	74-95-3	mg/L	-	<0.02	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	x	<0.005	0.0024	0.002	<0.001	0.0016	0.0016	0.0018	0.0018
Ethyl methacrylate ¹	97-63-2	mg/L	-	x	x	<0.01	x	x	x	x	x	x
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	0.00005	<0.000025	<0.000025	<0.00001	<0.00001	<0.00001	0.000005	<0.00001	<0.00001	<0.00001
Hexachlorobutadiene ¹	87-68-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	x	<0.05	x	x	x	x	x	x
Isopropylbenzene ¹	98-82-8	mg/L	-	x	x	x	x	x	x	x	x	x
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	<0.005	x	x	x	x	x	x
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.04	<0.04	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	<0.03	x	x	x	x	x	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	x	x	x	x	x	x	x
Propionitrile ¹	107-12-0	mg/L	-	x	x	<0.06	x	x	x	x	x	x
Propylbenzene ¹	103-65-1	mg/L	-	x	x	x	x	x	x	x	x	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	x	x	x	x	x	x	x	x
Styrene ¹	100-42-5	mg/L	0.1	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	x	x	<0.001	x	x	x	x	x	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	x	x	x	x	x	x	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0041	0.0043	0.0042	0.005	0.0039	0.0041	0.0041	0.0034	0.0046
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	x	x	x	x	x	x	x
Toluene ¹	108-88-3	mg/L	0.75	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.1	<0.1	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Trichloroethene (TCE)	79-01-6	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	0.00044	<0.001	<0.001	<0.001
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.01	<0.01	<0.01	<0.001	<0.001	0.00034	<0.001	<0.001	<0.001
Vinyl acetate ¹	108-05-4	mg/L	-	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Vinyl chloride ¹	75-01-4	mg/L	0.001	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Trihalomethanes (THM)												
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromoform ¹	75-25-2	mg/L	-	<0.015	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroform ¹	67-66-3	mg/L	0.1	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Semi Volatile Organic Compounds												
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	<0.0002	x	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Acetylaminofluorene ¹	53-96-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Picoline	109-06-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Acenaphthene ¹	83-32-9	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Acenaphthylene ¹	208-96-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Acetophenone ¹	98-86-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Benzidine ¹	92-87-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Benzo (a) pyrene ¹	205-99-2	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Benzo (b) fluoranthene ¹	191-24-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Benzo (g,h,i) perylene ¹	207-08-9	mg/L	-	x	x	<0.00005	x	x	x	x	x	x

APPENDIX B
Las Cruces Foothills Landfill MW-5

Las Cruces Foothills Landfill monitoring well MW-5

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-5								
				12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/20/12	6/26/13
Benzo (k) fluoranthene ¹	50-32-8	mg/L	0.0002	x	x	<0.00005	x	x	x	x	x	x
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	x	x	x	x
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
bis (2-Chloroisopropyl) ether (bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Carbazole	86-74-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Chlorobenzilate ¹	510-15-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Chrysene ¹	218-01-9	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Diallate ¹	2303-16-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Dibenz (a,j) acridine	224-42-0	mg/L	-	x	x	x	x	x	x	x	x	x
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Dibenzofuran ¹	132-64-9	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x	x	x	x
Diethylphthalate ¹	84-66-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Dimethylphthalate ¹	131-11-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Di-n-octylphthalate ¹	117-84-0	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Diphenylamine ¹	122-39-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Fluoranthene ¹	206-44-0	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Fluorene ¹	86-73-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	x	<0.0001	x	x	x	x	x	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Hexachloroethane ¹	67-72-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
HMX ¹	2691-41-0	mg/L	-	x	x	<0.0001	x	x	x	x	x	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Isophorone ¹	78-59-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Isosafrole ¹	120-58-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	<0.0001	x	x	x	x	x	x
Methapyrilene ¹	91-80-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	x	x	<0.001	x	x	x	x	x	x
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	<0.001	x	x	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Pyridine	110-86-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	<0.0001	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	x	x
Semi Volatile Organic Compounds - Phenolics												
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	x	x	<0.001	x	x	x	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	<0.001	x	x	x	x	x	x
Radium 226 and 228	NA	pCi/L	5	0.3								
Ra-226, total	NA	pCi/L	-	x	x	0.14	x	x	x	x	x	x
Ra-228¹, total	NA	pCi/L	-	x	x	0.16	x	x	x	x	x	x
Chlorinated Pesticides												
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
aldrin ¹	309-00-2	mg/L	-	x	x	<0.00004	x	x	x	x	x	x

APPENDIX B
Las Cruces Foothills Landfill MW-5

Las Cruces Foothills Landfill monitoring well MW-5

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-5								
				12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/20/12	6/26/13
alpha-BHC ¹	319-84-6	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x
beta-BHC ¹	319-85-7	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	<0.0002	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹			0.001									
Arochlor-1016	12674-11-2	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1221	11104-28-2	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1242	53469-21-9	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1248	12672-29-6	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1254	11097-69-1	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1260	11096-82-5	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Other Pesticides and Herbicides¹												
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	<0.000934	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Famphur ¹	52-58-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	<0.001	x	x	x	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Phorate ¹	298-02-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Silvex ¹ (2,4,5-TP)	93-72-1	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x

* baseline averages and standard deviations are based on 1999 and 2000 data only as per requirements in E

¹ hazardous

x parameter not analyzed

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(#) Scanned for and not detected, breaks down almost immediately in water.

APPENDIX B

Las Cruces Foothills Landfill MW-5

Las Cruces Foothills Landfill monitoring well MW-5									baseline	standard
constituent	CAS Number	unit	GWPS	6/16/16	12/27/16	6/27/17	12/6/17	12/13/18	average	deviation
date									7/15/03 to 12/2/04	7/15/03 to 12/2/04
Field Parameters										
water level elevation		ft amsl	-	3837.85	3836.72	3837.45	3836.20	3835.74	3,830.75	0.33
conductivity		µS/cm	-	418	449	459	468	461	425.86	58.14
pH		pH units	6-9	7.37	7.45	7.56	7.58	7.49	7.82	0.20
temperature		deg F	-	115.0	115.0	111.0	113.5	112.8	109.85	3.39
Major Ions										
calcium	7440-70-2	mg/L	-	37	39	39	37	37	34.16	0.69
chloride	16887-00-6	mg/L	250	24	25	26	29	27	33.57	3.31
fluoride ¹	16984-48-8	mg/L	1.6	x	x	x	x	x	0.58	0.04
magnesium	7439-95-4	mg/L	-	4.7	5.1	4.9	4.6	4.9	4.49	0.18
potassium	7440-09-7	mg/L	-	2.4	2.6	2.4	2.4	2.4	2.39	0.25
sodium	82115-62-6	mg/L	-	47	48	47	44	45	44.04	2.08
sulfate	18785-72-3	mg/L	600	47	50	44	46	46	43.43	1.40
alkalinity	NA	mg/L	-	108.9	106.6	107.7	106.0	104.7	120.86	4.30
bicarbonate alkalinity	71-52-3	mg/L	-	108.9	106.6	107.7	106.0	104.7	120.71	4.50
carbonate alkalinity	3812-32-6	mg/L	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	x
total dissolved solids	NA	mg/L	1,000	265	301	289	302	301	275.71	12.72
Nitrogen Species										
ammonia as N	1331-21-6	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	x
Kjeldahl nitrogen	7727-37-9	mg/L	-	x	x	x	x	x	<1.0	x
nitrate as N	14797-55-8	mg/L	10	4.7	4.9	5.1	5.0	5.1	2.16	0.151
nitrite	14797-65-0	mg/L	-	x	x	x	x	x	2.08	0.084
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x
Metals										
aluminum	7429-90-5	mg/L	5.0	x	x	x	x	x	<3.0	x
antimony ¹	7440-36-0	mg/L	0.006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003	x
arsenic ¹	7440-38-2	mg/L	0.01	0.0022	0.0025	0.0021	0.0016	0.0024	0.0026	x
barium ¹	7440-39-3	mg/L	1.0	0.060	0.064	0.062	0.062	0.062	0.06	0.005
beryllium ¹	7440-41-7	mg/L	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x
boron	7440-42-8	mg/L	0.75	x	x	x	x	x	<0.5	x
cadmium ¹	7440-43-9	mg/L	0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x
chromium ¹	7440-47-3	mg/L	0.05	<0.006	<0.006	<0.006	<0.006	<0.006	0.0037	x
cobalt ¹	7440-48-4	mg/L	0.05	<0.006	<0.006	<0.006	<0.006	<0.006	0.0001	x
copper ¹	7440-50-8	mg/L	1.0	<0.006	<0.006	<0.006	<0.006	<0.006	0.0009	x
iron	7439-89-6	mg/L	1.0	<0.02	0.023	<0.02	<0.02	<0.02	0.45	x
lead ¹	7439-92-1	mg/L	0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0004	x
manganese	7439-96-5	mg/L	0.2	<0.002	<0.002	<0.002	<0.002	<0.002	<0.03	x
mercury ¹	7439-97-6	mg/L	0.002	x	x	x	x	x	<0.001	x
molybdenum	7439-98-7	mg/L	1.0	x	x	x	x	x	<0.75	x
nickel ¹	7440-02-0	mg/L	0.2	<0.01	<0.01	<0.01	<0.01	<0.01	0.0017	x
selenium ¹	7782-49-2	mg/L	0.05	<0.005	<0.005	0.0013	0.0010	<0.001	0.0021	x
silver ¹	7440-22-4	mg/L	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	x
thallium ¹	7440-28-0	mg/L	0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0001	x
tin ¹	7440-31-5	mg/L	-	x	x	x	x	x	<0.4	x
uranium ¹	7440-61-1	mg/L	0.03	x	x	x	x	x	<2.5	x
vanadium ¹	7440-62-2	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.08	x
zinc	7440-66-6	mg/L	10.0	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	x
total organic carbon	-	mg/L	-	<1.0	<1.0	<1.0	0.20	<1.0	0.76	0.346
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x
sulfide ¹	18496-25-8	mg/L	-	x	x	x	x	x	<4.0	x
cyanide ¹	57-12-5	mg/L	0.2	x	x	x	x	x	<0.1	x
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.003	x
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	x	x	x	x	x	(^^)	(^^)
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	x
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
1,1-Dichloropropene ¹	563-58-6	mg/L	-	x	x	x	x	x	<0.005	x
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.00002	<0.00002	<0.000019	<0.000095	<0.000019	<0.0001	x
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	x	x	x	x	x	<0.0005	x
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	x
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	x	x	x	x	x	<0.0005	x
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	x
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	x	x	x	x	x	<0.01	x
1,3-Dichloropropane ¹	142-28-9	mg/L	-	x	x	x	x	x	<0.01	x
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.001	<0.001	<0.001	<0.001	<0.001	<0.015	x
2,2-Dichloropropane ¹	78-87-5	mg/L	-	x	x	x	x	x	<0.015	x
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x
2-Chlorotoluene ¹	95-49-8	mg/L	-	x	x	x	x	x	<0.0005	x
2-Hexanone (Butyl Ketone) ¹	78-93-3	mg/L	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	x
4-Chlorotoluene ¹	106-43-4	mg/L	-	x	x	x	x	x	<0.0005	x
4-Methyl-2-pentanone ¹	108-10-1	mg/L	-	<0.01	<0.01	<0.01	0.0017	<0.01	<0.015	x
Acetone ¹	67-64-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	x
Acetonitrile ¹	75-05-8	mg/L	-	x	x	x	x	x	<0.1	x
Acrolein ¹	107-02-8	mg/L	-	x	x	x	x	x	<0.1	x
Acrylonitrile ¹	107-13-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.2	x
Allyl chloride ¹	107-05-1	mg/L	-	x	x	x	x	x	<0.01	x
Benzene ¹	71-43-2	mg/L	0.005	<0.001	<0.001	<0.001	0.000096	<0.001	<0.001	x

APPENDIX B

Las Cruces Foothills Landfill MW-5

Las Cruces Foothills Landfill monitoring well MW-5									baseline	standard
constituent	CAS Number	unit	GWPS	6/16/16	12/27/16	6/27/17	12/6/17	12/13/18	7/15/03 to 12/2/04	7/15/03 to 12/2/04
Bis(chloromethyl) ether ¹	542-88-1	mg/L	-	x	x	x	x	x	x	x
Bromochloromethane ¹	74-97-5	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x
Bromomethane (methyl bromide) ¹	74-83-9	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.02	x
Carbon Disulfide ¹	75-15-00	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	x
Carbon Tetrachloride ¹	56-23-5	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	x
Chlorobenzene ¹	108-90-7	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
Chloroethane ¹	75-03-3	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	x
Chloromethane (methyl chloride) ¹	74-87-3	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
Chloroprene (2-Chloro-1,3-butadiene) ¹	126-99-8	mg/L	-	x	x	x	x	x	<0.05	x
cis-1,2-Dichloroethylene (cis-1,2-Dichloroethene) ¹	156-59-2	mg/L	0.07	<0.001	<0.001	<0.001	0.0005	<0.001	<0.005	x
cis-1,3-Dichloropropene ¹	542-75-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	x
Dibromomethane (methylene bromide) ¹	74-95-3	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	x
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	0.0025	0.0021	0.0022	0.0016	0.0013	<0.005	x
Ethyl methacrylate ¹	97-63-2	mg/L	-	x	x	x	x	x	<0.01	x
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	0.00005	<0.00001	<0.00001	<0.0000095	<0.0000095	<0.0000095	<0.000025	x
Hexachlorobutadiene ¹	87-68-3	mg/L	-	x	x	x	x	x	<0.01	x
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	x	x	x	x	<0.05	x
Isopropylbenzene ¹	98-82-8	mg/L	-	x	x	x	x	x	<0.0005	x
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	x	x	<0.005	x
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.04	x
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	x	x	<0.03	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.001	x
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	x	x	x	<0.0005	x
Propionitrile ¹	107-12-0	mg/L	-	x	x	x	x	x	<0.06	x
Propylbenzene ¹	103-65-1	mg/L	-	x	x	x	x	x	<0.0005	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	x	x	x	x	<0.0005	x
Styrene ¹	100-42-5	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	x
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	x	x	x	x	x	<0.005	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	x	x	x	<0.0005	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0057	0.0056	0.0061	0.0059	0.0051	0.0058	0.0003
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	x	x	x	<0.01	x
Toluene ¹	108-88-3	mg/L	0.75	<0.001	<0.001	<0.001	<0.001	<0.001	0.019	x
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	x
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	x
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	x
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	x
Trichloroethene (TCE) ¹	79-01-6	mg/L	0.005	<0.001	<0.001	<0.001	0.00078	<0.001	<0.001	x
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.001	<0.001	<0.001	0.00097	<0.001	<0.01	x
Vinyl acetate ¹	108-05-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	x
Vinyl chloride ¹	75-01-4	mg/L	0.001	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	x
Trihalomethanes (THM)										
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.015	x
Chloroform ¹	67-66-3	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
Semi Volatile Organic Compounds										
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	x	x	x	x	<0.01	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	x	x	<0.005	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	x	x	<0.01	x
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	x	<0.005	x
1-Methylnaphthalene	86-52-2	mg/L	-	x	x	x	x	x	<0.01	x
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	x	x	x	<0.01	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	x	x	x	<0.005	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	x	x	x	<0.005	x
2-Acetylaminofluorene ¹	53-96-3	mg/L	-	x	x	x	x	x	<0.02	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	x	<0.01	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	x	x	x	x	x	<0.01	x
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	x	x	x	<0.01	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	x	x	x	<0.01	x
2-Picoline	109-06-8	mg/L	-	x	x	x	x	x	<0.01	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	x	x	x	<0.01	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	x	x	x	<0.01	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	x	x	x	<0.01	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	x	x	x	<0.05	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	x	x	x	<0.02	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	x	x	x	<0.01	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	x	x	x	<0.02	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	x	x	x	<0.01	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	x	x	x	<0.02	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	x	x	x	<0.01	x
Acenaphthene ¹	83-32-9	mg/L	-	x	x	x	x	x	<0.01	x
Acenaphthylene ¹	208-96-8	mg/L	-	x	x	x	x	x	<0.01	x
Acetophenone ¹	98-86-2	mg/L	-	x	x	x	x	x	<0.01	x
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	x	x	x	<0.01	x
Aniline ¹	62-53-3	mg/L	-	x	x	x	x	x	<0.01	x
Anthracene ¹	120-12-7	mg/L	-	x	x	x	x	x	<0.01	x
Benzidine ¹	92-87-5	mg/L	-	x	x	x	x	x	<0.05	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	x	x	x	x	x	<0.01	x
Benzo (a) pyrene ¹	205-99-2	mg/L	-	x	x	x	x	x	<0.02	x
Benzo (b) fluoranthene ¹	191-24-2	mg/L	-	x	x	x	x	x	<0.01	x
Benzo (g,h,i) perylene ¹	207-08-9	mg/L	-	x	x	x	x	x	<0.02	x

APPENDIX B
Las Cruces Foothills Landfill MW-5

Las Cruces Foothills Landfill monitoring well MW-5

constituent	CAS Number	unit	GWPS						baseline	standard
				6/16/16	12/27/16	6/27/17	12/6/17	12/13/18	average	deviation
date										
									7/15/03 to 12/2/04	7/15/03 to 12/2/04
Benzo (k) fluoranthene ¹	50-32-8	mg/L	0.0002	x	x	x	x	x	<0.0001	x
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	<0.05	x
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x	x	x	x	<0.01	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	x	x	x	x	<0.01	x
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	x	x	x	x	x	<0.01	x
bis (2-Chloroisopropyl) ether (bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	x	x	x	x	x	<0.01	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	x	x	x	x	<0.02	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	x	x	x	x	<0.01	x
Carbazole	86-74-8	mg/L	-	x	x	x	x	x	<0.005	x
Chlorobenzilate ¹	510-15-6	mg/L	-	x	x	x	x	x	<0.01	x
Chrysene ¹	218-01-9	mg/L	-	x	x	x	x	x	<0.01	x
Diallate ¹	2303-16-4	mg/L	-	x	x	x	x	x	<0.01	x
Dibenz (a,j) acridine	224-42-0	mg/L	-	x	x	x	x	x	<0.01	x
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	x	x	x	x	x	<0.01	x
Dibenzofuran ¹	132-64-9	mg/L	-	x	x	x	x	x	<0.01	x
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x	x
Diethylphthalate ¹	84-66-2	mg/L	-	x	x	x	x	x	<0.01	x
Dimethylphthalate ¹	131-11-3	mg/L	-	x	x	x	x	x	<0.01	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	x	x	x	x	x	<0.01	x
Di-n-octylphthalate ¹	117-84-0	mg/L	-	x	x	x	x	x	<0.01	x
Diphenylamine ¹	122-39-4	mg/L	-	x	x	x	x	x	<0.01	x
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	x	x	x	x	<0.02	x
Fluoranthene ¹	206-44-0	mg/L	-	x	x	x	x	x	<0.01	x
Fluorene ¹	86-73-7	mg/L	-	x	x	x	x	x	<0.01	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	x	x	x	x	<0.001	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	x	x	x	x	<0.01	x
Hexachloroethane ¹	67-72-1	mg/L	-	x	x	x	x	x	<0.05	x
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x	x	x	x	<0.01	x
HMX ¹	2691-41-0	mg/L	-	x	x	x	x	x	x	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	x	x	x	x	x	<0.01	x
Isophorone ¹	78-59-1	mg/L	-	x	x	x	x	x	<0.01	x
Isosafrole ¹	120-58-1	mg/L	-	x	x	x	x	x	<0.01	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	x	x	x	<0.02	x
Methapyrilene ¹	91-80-5	mg/L	-	x	x	x	x	x	<0.02	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	x	x	<0.01	x
Naphthalene ¹	91-20-3	mg/L	0.03	x	x	x	x	x	<0.01	x
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	x	x	x	<0.01	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	<0.02	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	<0.002	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	<0.01	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	<0.01	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	<0.005	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	<0.01	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	<0.02	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	<0.04	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	<0.002	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	<0.01	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	<0.01	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	<0.02	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	<0.01	x
Phenanthrene ¹	85-01-8	mg/L	-	x	x	x	x	x	<0.001	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	<0.01	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	<0.01	x
Pyrene ¹	129-00-0	mg/L	-	x	x	x	x	x	<0.01	x
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	<0.01	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	<0.01	x
sym-Trinitrobenzene ¹ (1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	<0.01	x
Semi Volatile Organic Compounds - Phenolics										
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	<0.01	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	<0.01	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	<0.01	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	<0.01	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	<0.01	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	<0.05	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	<0.01	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	<0.01	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	<0.01	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	<0.01	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	x	x	x	x	x	<0.02	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	<0.05	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	x	x	x	<0.005	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	<0.05	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	<0.02	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	<0.01	x
Radium 226 and 228	NA	pCi/L	5							
Ra-226, total	NA	pCi/L	-	x	x	x	x	x	<2.5	x
Ra-228, total	NA	pCi/L	-	x	x	x	x	x	<2.5	x
Chlorinated Pesticides										
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	x	x	<0.001	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	x	<0.001	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	<0.001	x
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	<0.01	x

APPENDIX B

Las Cruces Foothills Landfill MW-5

Las Cruces Foothills Landfill monitoring well MW-5

constituent	CAS Number	unit	GWPS						baseline	standard
				6/16/16	12/27/16	6/27/17	12/6/17	12/13/18	average	deviation
date										
								7/15/03 to 12/2/04	7/15/03 to 12/2/04	
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	<0.0001	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	alpha +	x
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	<0.0001	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	<0.0001	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	<0.001	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	<0.001	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	<0.001	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	<0.001	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	<0.001	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	<0.00002	x
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	<0.001	x
gamma-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	<0.0001	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	see above	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	x	x	<0.001	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	x	x	<0.001	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	<0.02	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	x	<0.02	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	x	<0.01	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	<0.001	x
Polychlorinated Biphenyls (PCBs)¹			0.001							
Arochlor-1016	12674-11-2	mg/L	-	x	x	x	x	x	<0.0005	x
Arochlor-1221	11104-28-2	mg/L	-	x	x	x	x	x	<0.0005	x
Arochlor-1232	11141-16-5	mg/L	-	x	x	x	x	x	<0.0005	x
Arochlor-1242	53469-21-9	mg/L	-	x	x	x	x	x	<0.0005	x
Arochlor-1248	12672-29-6	mg/L	-	x	x	x	x	x	<0.0005	x
Arochlor-1254	11097-69-1	mg/L	-	x	x	x	x	x	<0.0005	x
Arochlor-1260	11096-82-5	mg/L	-	x	x	x	x	x	<0.0005	x
Other Pesticides and Herbicides¹										
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	x	<0.002	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	x	<0.01	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	x	<0.02	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	x	<0.02	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	x	<0.01	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	x	<0.02	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x	x	<0.01	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	x	x	<0.01	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	x	x	<0.01	x
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	<0.01	x
Silvex ¹ (2,4,5-TP)	93-72-1	mg/L	-	x	x	x	x	x	<0.002	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	<0.02	x

* baseline averages and standard deviations are based on 1999 and 2000 data only as per requirements in E

¹ hazardous

x parameter not analyzed

(^^) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(#) Scanned for and not detected, breaks down almost immediately in water.

MW-6

APPENDIX B

Las Cruces Foothills Landfill MW-6

Las Cruces Foothills Landfill monitoring well MW-6

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-6								
				7/15/03	8/27/03	9/29/03	10/27/03	11/25/03	12/29/03	12/2/04	12/14/05	
Field Parameters												
water level elevation		ft amsl	-	3832.03	3831.47	3831.47	3831.72	3831.96	3832.09	3832.52	3832.98	
conductivity		µS/cm	-	pumped dry	410	440	530	440	430	438	481	
pH		pH units	6-9	7.59	7.80	7.80	7.21	7.70	7.50	8.00	7.60	
temperature		deg F	-	pumped dry	105.4	103.1	108.0	107.8	100.9	93.38	100.0	
Major Ions												
calcium	7440-70-2	mg/L	-	46.5	44	46	50	43	47	45	47	
chloride	16887-00-6	mg/L	250	19.0	17	18	18	17	18	15	15	
fluoride ¹	16984-48-8	mg/L	1.6	0.6	0.5	0.5	0.6	0.5	0.48	x	x	
magnesium	7439-95-4	mg/L	-	5.48	4.9	5.3	5.2	4.6	5	5.3	5.3	
potassium	7440-09-7	mg/L	-	3.2	2.3	2.5	2.8	2.3	2.4	2.3	2.7	
sodium	82115-62-6	mg/L	-	45.6	34	37	44	37	39	39	41	
sulfate	18785-72-3	mg/L	600	87	94	88	88	76	85	77	68	
alkalinity	NA	mg/L	-	110	120	110	110	110	110	110	110	
bicarbonate alkalinity	71-52-3	mg/L	-	110	120	110	110	110	110	110	110	
carbonate alkalinity	3812-32-6	mg/L	-	<20	<2.0	<2.0	<2.0	<2.0	<2.0	<4.0	<2.0	
total dissolved solids	NA	mg/L	1,000	330	330	310	330	320	310	300	320	
Nitrogen Species												
ammonia as N	1331-21-6	mg/L	-	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Kjeldahl nitrogen	7727-37-9	mg/L	-	2	<1.0	<1.0	<1.0	<1.0	<1.0	x	x	
nitrate as N	14797-55-8	mg/L	10	3.6	3.4	3.8	3.8	3.8	3.8	3.5	3	
nitrite	14797-65-0	mg/L	-	<0.1	3.4	3.8	3.8	3.8	3.8	x	x	
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x	x	
Metals												
aluminum	7429-90-5	mg/L	5.0	0.09	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	x	
antimony ¹	7440-36-0	mg/L	0.006	<0.0004	<0.003	<0.003	<0.003	<0.003	<0.003	x	x	
arsenic ¹	7440-38-2	mg/L	0.01	0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	
barium ¹	7440-39-3	mg/L	1.0	0.0361	0.07	0.08	0.06	0.06	0.06	x	x	
beryllium ¹	7440-41-7	mg/L	0.004	<0.0002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x	
boron	7440-42-8	mg/L	0.75	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	x	x	
cadmium ¹	7440-43-9	mg/L	0.005	<0.0001	<0.002	<0.002	<0.002	<0.002	<0.002	x	x	
chromium ¹	7440-47-3	mg/L	0.05	0.0004	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	
cobalt ¹	7440-48-4	mg/L	0.05	0.00009	<0.03	<0.03	<0.03	<0.03	<0.03	x	x	
copper ¹	7440-50-8	mg/L	1.0	0.0005	<0.06	<0.06	<0.06	<0.06	<0.06	x	x	
iron	7439-89-6	mg/L	1.0	0.11	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
lead ¹	7439-92-1	mg/L	0.05	<0.0001	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	
manganese	7439-96-5	mg/L	0.2	0.032	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
mercury ¹	7439-97-6	mg/L	0.002	<0.0002	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	
molybdenum	7439-98-7	mg/L	1.0	<0.010	<0.75	<0.75	<0.75	<0.75	<0.75	x	x	
nickel ¹	7440-02-0	mg/L	0.2	0.00162	<0.05	<0.05	<0.05	<0.05	<0.05	x	x	
selenium ¹	7782-49-2	mg/L	0.05	0.0013	<0.005	<0.005	<0.005	<0.005	<0.005	x	x	
silver ¹	7440-22-4	mg/L	0.05	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	
thallium ¹	7440-28-0	mg/L	0.002	<0.00003	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	
tin ¹	7440-31-5	mg/L	-	<0.10	x	x	x	x	<0.4	x	x	
uranium ¹	7440-61-1	mg/L	0.03	<0.002	<2.5	<2.5	<2.5	<2.5	<2.5	x	x	
vanadium ¹	7440-62-2	mg/L	-	<0.050	<0.08	<0.08	<0.08	<0.08	<0.08	x	x	
zinc	7440-66-6	mg/L	10.0	0.024	<0.05	<0.05	<0.05	<0.05	<0.05	x	x	
total organic carbon	-	mg/L	-	<0.5	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<0.5	
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x	x	
sulfide ¹	18496-25-8	mg/L	-	<0.1	x	x	x	x	<4.0	x	x	
cyanide ¹	57-12-5	mg/L	0.2	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	x	x	
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	x	
total phenolics ¹	-	mg/L	0.005	0.030	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	(^^)	(^^)	(^^)	(^^)	(^^)	(^^)	x	x	
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
1,1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.0005	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.0005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,1-Dichloropropene ¹	563-58-6	mg/L	-	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	x	x	
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.010	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	<0.0005	x	x	x	x	x	x	x	
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	
1,3-Dichloropropane ¹	142-28-9	mg/L	-	<0.0005	<0.005	<0.01	<0.01	<0.01	<0.01	x	x	
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.0005	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	
2,2-Dichloropropane ¹	78-87-5	mg/L	-	<0.0005	<0.0151	<0.015	<0.015	<0.015	<0.015	x	x	
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.025	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
2-Chlorotoluene ¹	95-49-8	mg/L	-	<0.0005	x	x	x	x	x	x	x	
2-Hexanone (Butyl Ketone) ¹	78-93-3	mg/L	-	<0.025	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
4-Chlorotoluene ¹	106-43-4	mg/L	-	<0.0005	x	x	x	x	x	x	x	
4-Methyl-2-pentanone ¹	108-10-1	mg/L	-	<0.025	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	
Acetone ¹	67-64-1	mg/L	-	<0.025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Acetonitrile ¹	75-05-8	mg/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	x	x	
Acrolein ¹	107-02-8	mg/L	-	<0.025	<0.1	<0.1	<0.1	<0.1	<0.1	x	x	
Acrylonitrile ¹	107-13-1	mg/L	-	<0.025	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Allyl chloride ¹	107-05-1	mg/L	-	x	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	
Benzene ¹	71-43-2	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	

APPENDIX B

Las Cruces Foothills Landfill MW-6

Las Cruces Foothills Landfill monitoring well MW-6

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-6								
				7/15/03	8/27/03	9/29/03	10/27/03	11/25/03	12/29/03	12/2/04	12/14/05	
date												
Bis(chloromethyl) ether ¹	542-88-1	mg/L	-	x	x	x	x	x	x	x	x	x
Bromochloromethane ¹	74-97-5	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Bromomethane (methyl bromide) ¹	74-83-9	mg/L	-	<0.001	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Carbon Disulfide ¹	75-15-00	mg/L	-	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carbon Tetrachloride ¹	56-23-5	mg/L	0.005	<0.0005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chlorobenzene ¹	108-90-7	mg/L	0.1	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane ¹	75-03-3	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chloromethane (methyl chloride) ¹	74-87-3	mg/L	-	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroprene (2-Chloro-1,3-butadiene) ¹	126-99-8	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x	x
cis-1,2-Dichloroethylene (cis-1,2-Dichloroethene) ¹	156-59-2	mg/L	0.07	0.0006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis-1,3-Dichloropropene ¹	542-75-6	mg/L	-	<0.0005	<0.001	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Dibromomethane (methylene bromide) ¹	74-95-3	mg/L	-	<0.0005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	0.0052	0.0068	<0.005	0.0079	0.0074	0.0068	x	0.005	0.005
Ethyl methacrylate ¹	97-63-2	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	0.00005	<0.0005	<0.000025	<0.000025	<0.000025	<0.000025	<0.000025	<0.000025	<0.000025	<0.000025
Hexachlorobutadiene ¹	87-68-3	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Isobutyl alcohol ¹	78-83-1	mg/L	-	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x	x
Isopropylbenzene ¹	98-82-8	mg/L	-	<0.0005	x	x	x	x	x	x	x	x
Methacrylonitrile ¹	126-98-7	mg/L	-	<0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	x	x
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.005	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Methyl methacrylate ¹	80-62-6	mg/L	-	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	x	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
n-Butylbenzene ¹	104-51-8	mg/L	-	<0.0005	x	x	x	x	x	x	x	x
Propionitrile ¹	107-12-0	mg/L	-	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	x	x
Propylbenzene ¹	103-65-1	mg/L	-	<0.0005	x	x	x	x	x	x	x	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	<0.0005	x	x	x	x	x	x	x	x
Styrene ¹	100-42-5	mg/L	0.1	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	<0.005	x	x	x	x	x	x	x	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	<0.0005	x	x	x	x	x	x	x	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0104	0.012	0.012	0.012	0.012	0.012	0.012	0.011	0.01
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	<0.010	x	x	x	x	x	x	x	x
Toluene ¹	108-88-3	mg/L	0.75	0.0047	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.0005	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.010	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.0009	0.0011	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Vinyl acetate ¹	108-05-4	mg/L	-	<0.025	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Vinyl chloride ¹	75-01-4	mg/L	0.001	<0.0005	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Trihalomethanes (THM)												
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
Chloroform ¹	67-66-3	mg/L	0.1	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Semi Volatile Organic Compounds												
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	<0.005	x	x	x	x	x	x	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
1-Chloronaphthalene	NA	mg/L	-	<0.005	x	x	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
1-Naphthylamine ¹	134-32-7	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	x	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	x	x
2-Acetylaminofluorene ¹	53-96-3	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
2-Naphthylamine ¹	91-59-8	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	<0.050	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
2-Picoline	109-06-8	mg/L	-	<0.010	x	x	x	x	x	x	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	<0.050	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	<0.050	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	<0.020	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	<0.020	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	<0.050	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Acenaphthene ¹	83-32-9	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Acenaphthylene ¹	208-96-8	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Acetophenone ¹	98-86-2	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	<0.010	x	x	x	x	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	<0.010	x	x	x	x	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Benzidine ¹	92-87-5	mg/L	-	<0.050	x	x	x	x	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x

APPENDIX B

Las Cruces Foothills Landfill MW-6

Las Cruces Foothills Landfill monitoring well MW-6

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-6							
				7/15/03	8/27/03	9/29/03	10/27/03	11/25/03	12/29/03	12/2/04	12/14/05
alpha-Chlordane ¹	5103-71-9	mg/L	-	<0.0001	alpha +	alpha +	alpha +	alpha +	alpha +	x	x
beta-BHC ¹	319-85-7	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x
Dieldrin ¹	60-57-1	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Endrin ketone	53494-70-5	mg/L	-	<0.00002	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
gamma-BHC ¹	319-86-8	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	<0.0001	see above	see above	see above	see above	see above	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Heptachlor ¹	76-44-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Isodrin ¹	465-73-6	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Kepone ¹	143-50-0	mg/L	-	<0.025	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Methoxychlor ¹	72-43-5	mg/L	-	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Toxaphene ¹	8001-35-2	mg/L	-	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Polychlorinated Biphenyls (PCBs)¹			0.001								
Arochlor-1016	12674-11-2	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Arochlor-1221	11104-28-2	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Arochlor-1232	11141-16-5	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Arochlor-1242	53469-21-9	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Arochlor-1248	12672-29-6	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Arochlor-1254	11097-69-1	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Arochlor-1260	11096-82-5	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Other Pesticides and Herbicides¹											
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	<1.30	x
2,4,5-T ¹	93-76-5	mg/L	-	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Dimethoate ¹	60-51-5	mg/L	-	<0.0005	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Dinoseb ¹	88-85-7	mg/L	-	<0.005	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Disulfoton ¹	298-04-4	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Famphur ¹	52-58-7	mg/L	-	<0.0005	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Methyl parathion ¹	298-00-0	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Phorate ¹	298-02-2	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Silvex ¹ (2,4,5-TP)	93-72-1	mg/L	-	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	<0.02	<0.02	<0.02	<0.02	<0.02	x	x

* baseline averages and standard deviations are based on 1999 and 2000 data only as per requirements in Environmental Protection, subpart 803. Ground Water Sampling and Analysis, 1995.

¹ hazardous

x parameter not analyzed

(^^) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(#) Scanned for and not detected, breaks down almost immediately in water.

APPENDIX B

Las Cruces Foothills Landfill MW-6

Las Cruces Foothills Landfill monitoring well MW-6

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-6								
				12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/20/12	
Field Parameters												
water level elevation		ft amsl	-	3833.46	3835.92	3838.67	3847.07	3844.37	3844.53	3845.07	3842.63	
conductivity		µS/cm	-	440	420	390	532	420	403	380	400	
pH		pH units	6-9	7.60	7.41	7.69	7.28	7.68	7.33	7.29	6.99	
temperature		deg F	-	103.5	103.1	105.1	102.6	105.8	102.6	81.3	81.5	
Major Ions												
calcium	7440-70-2	mg/L	-	41	40	36	40	40	40	37	39	
chloride	16887-00-6	mg/L	250	13	13	11	13	11	12	11	11	
fluoride ¹	16984-48-8	mg/L	1.6	x	x	0.56	x	0.55	x	x	x	
magnesium	7439-95-4	mg/L	-	4.9	4.7	4.2	4.7	4.7	4.6	4.5	4.5	
potassium	7440-09-7	mg/L	-	2.2	2.3	2	2.3	2.3	2.4	2.2	2.4	
sodium	82115-62-6	mg/L	-	38	36	34	37	37	37	36	37	
sulfate	18785-72-3	mg/L	600	64	62	52	57	48	45	50	49	
alkalinity	NA	mg/L	-	110	110	120	110	120	120	120	120	
bicarbonate alkalinity	71-52-3	mg/L	-	110	110	120	110	120	120	120	120	
carbonate alkalinity	3812-32-6	mg/L	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
total dissolved solids	NA	mg/L	1,000	290	280	280	276	277	269	261	257	
Nitrogen Species												
ammonia as N	1331-21-6	mg/L	-	<0.5	<0.5	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	
Kjeldahl nitrogen	7727-37-9	mg/L	-	x	x	<1.0	x	x	x	x	x	
nitrate as N	14797-55-8	mg/L	10	3	3	2.5	2.7	2.7	2.9	2.9	3.2	
nitrite	14797-65-0	mg/L	-	x	x	x	x	x	x	x	x	
total nitrogen	-	mg/L	-	x	x	2.5	x	x	x	x	x	
Metals												
aluminum	7429-90-5	mg/L	5.0	x	x	<0.02	x	<0.020	x	x	x	
antimony ¹	7440-36-0	mg/L	0.006	x	x	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
arsenic ¹	7440-38-2	mg/L	0.01	x	x	0.007	0.003	0.00164	0.0016	0.0016	0.0015	
barium ¹	7440-39-3	mg/L	1.0	x	x	0.055	0.055	0.057	0.058	0.057	0.055	
beryllium ¹	7440-41-7	mg/L	0.004	x	x	<0.003	x	<0.001	0.00038	<0.002	<0.002	
boron	7440-42-8	mg/L	0.75	x	x	<0.04	x	<0.04	x	x	x	
cadmium ¹	7440-43-9	mg/L	0.005	x	x	<0.002	<0.0020	<0.002	<0.002	<0.002	<0.002	
chromium ¹	7440-47-3	mg/L	0.05	x	x	<0.006	<0.0060	<0.006	<0.006	<0.006	<0.006	
cobalt ¹	7440-48-4	mg/L	0.05	x	x	<0.006	<0.0060	<0.006	0.00079	<0.006	<0.006	
copper ¹	7440-50-8	mg/L	1.0	x	x	0.0084	<0.0060	<0.006	<0.006	<0.006	<0.006	
iron	7439-89-6	mg/L	1.0	<0.1	<0.1	<0.05	<0.05	<0.05	0.012	<0.02	<0.02	
lead ¹	7439-92-1	mg/L	0.05	x	x	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
manganese	7439-96-5	mg/L	0.2	<0.03	<0.03	0.0059	0.0057	0.0057	0.0064	0.0059	0.0054	
mercury ¹	7439-97-6	mg/L	0.002	x	x	<0.0002	x	<0.0002	x	x	x	
molybdenum	7439-98-7	mg/L	1.0	x	x	<0.008	x	<0.008	x	x	x	
nickel ¹	7440-02-0	mg/L	0.2	x	x	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
selenium ¹	7782-49-2	mg/L	0.05	x	x	0.001	<0.001	<0.001	0.0011	0.0011	<0.001	
silver ¹	7440-22-4	mg/L	0.05	x	x	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
thallium ¹	7440-28-0	mg/L	0.002	x	x	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
tin ¹	7440-31-5	mg/L	-	x	x	<0.1	x	x	x	x	x	
uranium ¹	7440-61-1	mg/L	0.03	x	x	0.002	x	x	x	x	x	
vanadium ¹	7440-62-2	mg/L	-	x	x	<0.05	<0.05	<0.05	0.0087	<0.05	<0.05	
zinc	7440-66-6	mg/L	10.0	x	x	<0.02	<0.02	<0.02	0.012	<0.01	<0.01	
total organic carbon	-	mg/L	-	2.6	<1.0	3.5	1.2	1.0	1.1	<1.0	<1.0	
phosphate	14265-44-2	mg/L	-	x	x	<0.50	x	<0.50	x	x	x	
sulfide ¹	18496-25-8	mg/L	-	x	x	3	x	x	x	x	x	
cyanide ¹	57-12-5	mg/L	0.2	x	x	<0.005	x	x	x	x	x	
perchlorate ¹	14797-73-0	mg/L	-	x	x	<0.001	x	x	x	x	x	
total phenolics ¹	-	mg/L	0.005	<0.003	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	x	x	(^^)	x	x	x	x	x	
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	
1,1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,1-Dichloropropene ¹	563-58-6	mg/L	-	x	x	<0.005	x	x	x	x	x	
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	x	x	x	x	x	x	x	x	
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	x	x	<0.001	x	x	x	x	x	
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	x	x	<0.001	<0.001	x	x	x	x	
1,3-Dichloropropane ¹	142-28-9	mg/L	-	x	x	<0.01	x	x	x	x	x	
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
2,2-Dichloropropane ¹	78-87-5	mg/L	-	x	x	<0.015	x	x	x	x	x	
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
2-Chlorotoluene ¹	95-49-8	mg/L	-	x	x	x	x	x	x	x	x	
2-Hexanone (Butyl Ketone) ¹	78-93-3	mg/L	-	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	
4-Chlorotoluene ¹	106-43-4	mg/L	-	x	x	x	x	x	x	x	x	
4-Methyl-2-pentanone ¹	108-10-1	mg/L	-	<0.015	<0.015	<0.015	<0.01	<0.01	<0.01	<0.01	<0.01	
Acetone ¹	67-64-1	mg/L	-	<0.1	<0.1	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	
Acetonitrile ¹	75-05-8	mg/L	-	x	x	<0.1	x	x	x	x	x	
Acrolein ¹	107-02-8	mg/L	-	x	x	<0.1	x	x	x	x	x	
Acrylonitrile ¹	107-13-1	mg/L	-	<0.2	<0.2	<0.2	<0.01	<0.01	<0.01	<0.01	<0.01	
Allyl chloride ¹	107-05-1	mg/L	-	x	x	<0.01	x	x	x	x	x	
Benzene ¹	71-43-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	

APPENDIX B

Las Cruces Foothills Landfill MW-6

Las Cruces Foothills Landfill monitoring well MW-6

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-6								
				12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/20/12	
date												
Bis(chloromethyl) ether ¹	542-88-1	mg/L	-	x	x	(#)	x	x	x	x	x	x
Bromochloromethane ¹	74-97-5	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	0.001	<0.002	<0.002	<0.002
Bromomethane (methyl bromide) ¹	74-83-9	mg/L	-	<0.02	<0.02	<0.02	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Carbon Disulfide ¹	75-15-00	mg/L	-	<0.1	<0.1	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Carbon Tetrachloride ¹	56-23-5	mg/L	0.005	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chlorobenzene ¹	108-90-7	mg/L	0.1	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroethane ¹	75-03-3	mg/L	-	<0.01	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chloromethane (methyl chloride) ¹	74-87-3	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroprene (2-Chloro-1,3-butadiene) ¹	126-99-8	mg/L	-	x	x	x	x	x	x	x	x	x
cis-1,2-Dichloroethylene (cis-1,2-Dichloroethene) ¹	156-59-2	mg/L	0.07	<0.005	<0.005	<0.005	<0.001	<0.001	0.00045	<0.001	<0.001	<0.001
cis-1,3-Dichloropropene ¹	542-75-6	mg/L	-	<0.02	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dibromomethane (methylene bromide) ¹	74-95-3	mg/L	-	<0.02	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	<0.005	<0.005	0.0045	0.0043	0.0037	0.0031	0.0030	0.0036	0.0036
Ethyl methacrylate ¹	97-63-2	mg/L	-	x	x	<0.01	x	x	x	x	x	x
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	0.00005	<0.000025	<0.000025	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Hexachlorobutadiene ¹	87-68-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	x	<0.05	x	x	x	x	x	x
Isopropylbenzene ¹	98-82-8	mg/L	-	x	x	x	x	x	x	x	x	x
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	<0.005	x	x	x	x	x	x
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.04	<0.04	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	<0.03	x	x	x	x	x	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	x	x	x	x	x	x	x
Propionitrile ¹	107-12-0	mg/L	-	x	x	<0.06	x	x	x	x	x	x
Propylbenzene ¹	103-65-1	mg/L	-	x	x	x	x	x	x	x	x	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	x	x	x	x	x	x	x	x
Styrene ¹	100-42-5	mg/L	0.1	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	x	x	<0.001	x	x	x	x	x	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	x	x	x	x	x	x	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0072	0.0076	0.0078	0.0085	0.0073	0.0068	0.0072	0.0061	0.0061
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	x	x	x	x	x	x	x
Toluene ¹	108-88-3	mg/L	0.75	<0.005	<0.005	<0.005	<0.001	<0.001	0.00016	<0.001	<0.001	<0.001
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.005	<0.005	<0.005	<0.002	<0.002	0.0003	<0.002	<0.002	<0.002
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.1	<0.1	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.0013	<0.001	<0.001	<0.001	<0.001	0.00076	<0.001	<0.001	<0.001
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.01	<0.01	<0.01	<0.001	<0.001	0.00074	<0.001	<0.001	<0.001
Vinyl acetate ¹	108-05-4	mg/L	-	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Vinyl chloride ¹	75-01-4	mg/L	0.001	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Trihalomethanes (THM)												
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromoform ¹	75-25-2	mg/L	-	<0.015	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroform ¹	67-66-3	mg/L	0.1	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Semi Volatile Organic Compounds												
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	<0.0002	x	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Acetylaminofluorene ¹	53-96-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Picoline	109-06-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Acenaphthene ¹	83-32-9	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Acenaphthylene ¹	208-96-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Acetophenone ¹	98-86-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Benzidine ¹	92-87-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Benzo (a) pyrene ¹	205-99-2	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Benzo (b) fluoranthene ¹	191-24-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Benzo (g,h,i) perylene ¹	207-08-9	mg/L	-	x	x	<0.00005	x	x	x	x	x	x

APPENDIX B

Las Cruces Foothills Landfill MW-6

Las Cruces Foothills Landfill monitoring well MW-6

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-6								
				12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/20/12	
Benzo (k) fluoranthene ¹	50-32-8	mg/L	0.0002	x	x	<0.00005	x	x	x	x	x	
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	x	x	x	
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x	<0.001	x	x	x	x	x	
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	x	<0.001	x	x	x	x	x	
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	x	x	<0.001	x	x	x	x	x	
bis (2-Chloroisopropyl) ether (bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	x	x	<0.001	x	x	x	x	x	
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	x	<0.001	x	x	x	x	x	
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	x	<0.001	x	x	x	x	x	
Carbazole	86-74-8	mg/L	-	x	x	<0.001	x	x	x	x	x	
Chlorobenzilate ¹	510-15-6	mg/L	-	x	x	<0.001	x	x	x	x	x	
Chrysene ¹	218-01-9	mg/L	-	x	x	<0.00005	x	x	x	x	x	
Diallate ¹	2303-16-4	mg/L	-	x	x	<0.001	x	x	x	x	x	
Dibenz (a,j) acridine	224-42-0	mg/L	-	x	x	x	x	x	x	x	x	
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	x	x	<0.00005	x	x	x	x	x	
Dibenzofuran ¹	132-64-9	mg/L	-	x	x	<0.001	x	x	x	x	x	
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x	x	x	
Diethylphthalate ¹	84-66-2	mg/L	-	x	x	<0.001	x	x	x	x	x	
Dimethylphthalate ¹	131-11-3	mg/L	-	x	x	<0.001	x	x	x	x	x	
Di-n-butylphthalate ¹	84-74-2	mg/L	-	x	x	<0.001	x	x	x	x	x	
Di-n-octylphthalate ¹	117-84-0	mg/L	-	x	x	<0.001	x	x	x	x	x	
Diphenylamine ¹	122-39-4	mg/L	-	x	x	<0.001	x	x	x	x	x	
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	x	<0.001	x	x	x	x	x	
Fluoranthene ¹	206-44-0	mg/L	-	x	x	<0.001	x	x	x	x	x	
Fluorene ¹	86-73-7	mg/L	-	x	x	<0.001	x	x	x	x	x	
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	x	<0.0001	x	x	x	x	x	
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	x	<0.001	x	x	x	x	x	
Hexachloroethane ¹	67-72-1	mg/L	-	x	x	<0.001	x	x	x	x	x	
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x	<0.001	x	x	x	x	x	
HMX ¹	2691-41-0	mg/L	-	x	x	<0.0001	x	x	x	x	x	
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	x	x	<0.00005	x	x	x	x	x	
Isophorone ¹	78-59-1	mg/L	-	x	x	<0.001	x	x	x	x	x	
Isosafrole ¹	120-58-1	mg/L	-	x	x	<0.001	x	x	x	x	x	
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	x	x	x	x	x	x	
Methapyrilene ¹	91-80-5	mg/L	-	x	x	<0.001	x	x	x	x	x	
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	<0.001	x	x	x	x	x	
Naphthalene ¹	91-20-3	mg/L	0.03	x	x	<0.001	x	x	x	x	x	
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	<0.001	x	x	x	x	x	
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	<0.001	x	x	x	x	x	
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	<0.001	x	x	x	x	x	
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	<0.001	x	x	x	x	x	
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	<0.001	x	x	x	x	x	
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	<0.001	x	x	x	x	x	
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	<0.001	x	x	x	x	x	
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	<0.001	x	x	x	x	x	
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	<0.001	x	x	x	x	x	
o-Toluidine ¹	95-53-4	mg/L	-	x	x	<0.001	x	x	x	x	x	
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	<0.001	x	x	x	x	x	
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	<0.001	x	x	x	x	x	
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	<0.001	x	x	x	x	x	
Phenacetin ¹	62-44-2	mg/L	-	x	x	<0.001	x	x	x	x	x	
Phenanthrene ¹	85-01-8	mg/L	-	x	x	<0.001	x	x	x	x	x	
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	<0.001	x	x	x	x	x	
Pronamide ¹	23950-58-5	mg/L	-	x	x	<0.001	x	x	x	x	x	
Pyrene ¹	129-00-0	mg/L	-	x	x	<0.001	x	x	x	x	x	
Pyridine	110-86-1	mg/L	-	x	x	<0.001	x	x	x	x	x	
RDX ¹	121-82-4	mg/L	-	x	x	<0.0001	x	x	x	x	x	
Safrole ¹	94-59-7	mg/L	-	x	x	<0.001	x	x	x	x	x	
sym-Trinitrobenzene ¹ (1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	x	
Semi Volatile Organic Compounds - Phenolics												
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	<0.001	x	x	x	x	x	
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	<0.001	x	x	x	x	x	
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	<0.001	x	x	x	x	x	
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	<0.001	x	x	x	x	x	
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	<0.001	x	x	x	x	x	
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	<0.001	x	x	x	x	x	
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	<0.001	x	x	x	x	x	
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	<0.001	x	x	x	x	x	
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	<0.001	x	x	x	x	x	
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	<0.001	x	x	x	x	x	
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	x	x	<0.001	x	x	x	x	x	
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	<0.001	x	x	x	x	x	
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	<0.001	x	x	x	x	x	
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	<0.001	x	x	x	x	x	
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	<0.001	x	x	x	x	x	
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	<0.001	x	x	x	x	x	
Radium 226 and 228	NA	pCi/L	5	0.45								
Ra-226, total	NA	pCi/L	-	x	x	0.2	x	x	x	x	x	
Ra-228, total	NA	pCi/L	-	x	x	0.25	x	x	x	x	x	
Chlorinated Pesticides												
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	<0.00004	x	x	x	x	x	
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	<0.00004	x	x	x	x	x	
aldrin ¹	309-00-2	mg/L	-	x	x	<0.00004	x	x	x	x	x	
alpha-BHC ¹	319-84-6	mg/L	-	x	x	<0.00004	x	x	x	x	x	

APPENDIX B

Las Cruces Foothills Landfill MW-6

Las Cruces Foothills Landfill monitoring well MW-6

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-6								
				12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/20/12	
date												
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x
beta-BHC ¹	319-85-7	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	<0.0002	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹			0.001									
Arochlor-1016	12674-11-2	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1221	11104-28-2	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1242	53469-21-9	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1248	12672-29-6	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1254	11097-69-1	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1260	11096-82-5	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Other Pesticides and Herbicides¹												
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	<0.000717	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Famphur ¹	52-58-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	<0.001	x	x	x	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Phorate ¹	298-02-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Silvex ¹ (2,4,5-TP)	93-72-1	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x

* baseline averages and standard deviations are based on 1999 and 2000 data only as per requirements in Environ

¹ hazardous

x parameter not analyzed

(^^) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(#) Scanned for and not detected, breaks down almost immediately in water.

APPENDIX B

Las Cruces Foothills Landfill MW-6

Las Cruces Foothills Landfill monitoring well MW-6

constituent	CAS Number	unit	GWPS							baseline	standard
				6/26/13	6/16/16	12/27/16	6/27/17	12/6/17	12/13/18	average	deviation
date										7/15/03 to 12/2/04	7/15/03 to 12/2/04
Field Parameters											
water level elevation		ft amsl	-	3838.22	3837.12	3836.60	3837.03	3836.60	3835.67	3,831.89	0.37
conductivity		µS/cm	-	400	385	393	404	404	397	448.00	41.76
pH		pH units	6-9	7.56	7.15	7.34	7.42	7.38	7.28	7.66	0.25
temperature		deg F	-	107.4	115.0	111.9	111.9	115.0	110.1	103.10	5.49
Major Ions											
calcium	7440-70-2	mg/L	-	38	40	40	41	38	38	45.93	2.28
chloride	16887-00-6	mg/L	250	11	12	11	12	12	12	17.43	1.27
fluoride ¹	16984-48-8	mg/L	1.6	x	x	x	x	x	x	0.53	0.05
magnesium	7439-95-4	mg/L	-	4.3	4.6	4.5	4.6	4.2	4.5	5.11	0.30
potassium	7440-09-7	mg/L	-	2.3	2.3	2.3	2.2	2.3	2.3	2.54	0.34
sodium	82115-62-6	mg/L	-	35	37	36	36	35	36	39.37	4.09
sulfate	18785-72-3	mg/L	600	49	45	44	44	47	46	85.00	6.43
alkalinity	NA	mg/L	-	120	120.8	120.8	124.8	119.5	122.5	111.43	3.78
bicarbonate alkalinity	71-52-3	mg/L	-	120	120.8	120.8	124.8	119.5	122.5	111.43	3.78
carbonate alkalinity	3812-32-6	mg/L	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	x
total dissolved solids	NA	mg/L	1,000	266	256	268	265	273	266	318.57	12.15
Nitrogen Species											
ammonia as N	1331-21-6	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	x
Kjeldahl nitrogen	7727-37-9	mg/L	-	x	x	x	x	x	x	2.00	x
nitrate as N	14797-55-8	mg/L	10	3.3	3.5	3.5	3.0	3.6	3.7	3.67	0.17
nitrite	14797-65-0	mg/L	-	x	x	x	x	x	x	3.72	0.18
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x	x
Metals											
aluminum	7429-90-5	mg/L	5.0	x	x	x	x	x	x	0.09	x
antimony ¹	7440-36-0	mg/L	0.006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003	x
arsenic ¹	7440-38-2	mg/L	0.01	0.002	0.0016	0.0017	0.0014	0.0012	0.0018	0.0005	x
barium ¹	7440-39-3	mg/L	1.0	0.061	0.057	0.058	0.058	0.056	0.055	0.06	0.01
beryllium ¹	7440-41-7	mg/L	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x
boron	7440-42-8	mg/L	0.75	x	x	x	x	x	x	<0.5	x
cadmium ¹	7440-43-9	mg/L	0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x
chromium ¹	7440-47-3	mg/L	0.05	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0004	x
cobalt ¹	7440-48-4	mg/L	0.05	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0001	x
copper ¹	7440-50-8	mg/L	1.0	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0005	x
iron	7439-89-6	mg/L	1.0	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.11	x
lead ¹	7439-92-1	mg/L	0.05	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.01	x
manganese	7439-96-5	mg/L	0.2	0.0081	0.0035	0.0038	0.0040	0.0026	0.0024	0.03	x
mercury ¹	7439-97-6	mg/L	0.002	x	x	x	x	x	x	<0.001	x
molybdenum	7439-98-7	mg/L	1.0	x	x	x	x	x	x	<0.75	x
nickel ¹	7440-02-0	mg/L	0.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0016	x
selenium ¹	7782-49-2	mg/L	0.05	0.0018	<0.001	<0.001	<0.001	<0.001	0.0015	0.0013	x
silver ¹	7440-22-4	mg/L	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	x
thallium ¹	7440-28-0	mg/L	0.002	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	x
tin ¹	7440-31-5	mg/L	-	x	x	x	x	x	x	<0.4	x
uranium ¹	7440-61-1	mg/L	0.03	x	x	x	x	x	x	<2.5	x
vanadium ¹	7440-62-2	mg/L	-	<0.05	<0.05	<0.05	<0.05	0.0070	<0.05	<0.08	x
zinc	7440-66-6	mg/L	10.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	x
total organic carbon	-	mg/L	-	1.6	<1.0	<1.0	1.1	<1.0	<1.0	<0.5	x
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x	x
sulfide ¹	18496-25-8	mg/L	-	x	x	x	x	x	x	<4.0	x
cyanide ¹	57-12-5	mg/L	0.2	x	x	x	x	x	x	<0.1	x
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.03	x
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	x	x	x	x	x	x	(^^)	x
Volatile Organic Compounds											
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
1,1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	x
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
1,1-Dichloropropene ¹	563-58-6	mg/L	-	x	x	x	x	x	x	<0.005	x
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.0001	<0.00002	<0.00002	<0.000019	<0.000095	<0.000019	<0.0001	x
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	x	x	x	x	x	x	<0.0005	x
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	x
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	x	x	x	x	x	x	<0.01	x
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	x
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	x	x	x	x	x	x	<0.01	x
1,3-Dichloropropane ¹	142-28-9	mg/L	-	x	x	x	x	x	x	<0.01	x
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.015	x
2,2-Dichloropropane ¹	78-87-5	mg/L	-	x	x	x	x	x	x	<0.015	x
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x
2-Chlorotoluene ¹	95-49-8	mg/L	-	x	x	x	x	x	x	<0.0005	x
2-Hexanone (Butyl Ketone) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	x
4-Chlorotoluene ¹	106-43-4	mg/L	-	x	x	x	x	x	x	<0.0005	x
4-Methyl-2-pentanone ¹	108-10-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	0.0017	<0.01	<0.015	x
Acetone ¹	67-64-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	x
Acetonitrile ¹	75-05-8	mg/L	-	x	x	x	x	x	x	<0.1	x
Acrolein ¹	107-02-8	mg/L	-	x	x	x	x	x	x	<0.1	x
Acrylonitrile ¹	107-13-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.2	x
Allyl chloride ¹	107-05-1	mg/L	-	x	x	x	x	x	x	<0.01	x
Benzene ¹	71-43-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	0.00013	<0.001	<0.001	x

APPENDIX B

Las Cruces Foothills Landfill MW-6

Las Cruces Foothills Landfill monitoring well MW-6											baseline	standard
constituent	CAS Number	unit	GWPS								average	deviation
date				6/26/13	6/16/16	12/27/16	6/27/17	12/6/17	12/13/18	7/15/03 to 12/2/04	7/15/03 to 12/2/04	
Bis(chloromethyl) ether ¹	542-88-1	mg/L	-	x	x	x	x	x	x	x	x	x
Bromochloromethane ¹	74-97-5	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x
Bromomethane (methyl bromide) ¹	74-83-9	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.02	x
Carbon Disulfide ¹	75-15-00	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	x
Carbon Tetrachloride ¹	56-23-5	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	x
Chlorobenzene ¹	108-90-7	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
Chloroethane ¹	75-03-3	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	x
Chloromethane (methyl chloride) ¹	74-87-3	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
Chloroprene (2-Chloro-1,3-butadiene) ¹	126-99-8	mg/L	-	x	x	x	x	x	x	x	<0.05	x
cis-1,2-Dichloroethylene (cis-1,2-Dichloroethene) ¹	156-59-2	mg/L	0.07	<0.001	<0.001	<0.001	<0.001	0.00057	<0.001	<0.001	<0.005	x
cis-1,3-Dichloropropene ¹	542-75-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	x
Dibromomethane (methylene bromide) ¹	74-95-3	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	x
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	0.0042	0.0041	0.0029	0.0031	0.0022	0.0020	0.0068	0.001	
Ethyl methacrylate ¹	97-63-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	0.00005	<0.00001	<0.00001	<0.00001	<0.0000095	<0.0000095	<0.0000096	<0.000025	<0.000025	x
Hexachlorobutadiene ¹	87-68-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	x	x	x	x	x	x	<0.05	x
Isopropylbenzene ¹	98-82-8	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	x	x	x	x	<0.005	x
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.04	x
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	x	x	x	x	<0.03	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.001	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.001	x
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
Propionitrile ¹	107-12-0	mg/L	-	x	x	x	x	x	x	x	<0.06	x
Propylbenzene ¹	103-65-1	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
Styrene ¹	100-42-5	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	x
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	x	x	x	x	x	x	x	<0.005	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0070	0.0060	0.0061	0.0065	0.0069	0.0059	0.012	0.0007	
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	x	x	x	x	x	<0.010	x
Toluene ¹	108-88-3	mg/L	0.75	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	x
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	x
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	x
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	x
Trichloroethene (TCE) ¹	79-01-6	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	0.00064	<0.001	<0.001	<0.001	x
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	0.00069	<0.001	<0.001	<0.01	x
Vinyl acetate ¹	108-05-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	x
Vinyl chloride ¹	75-01-4	mg/L	0.001	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	x
Trihalomethanes (THM)												
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.015	x
Chloroform ¹	67-66-3	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
Semi Volatile Organic Compounds												
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	x	x	x	x	<0.005	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	x	x	x	x	<0.01	x
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	x	x	x	<0.005	x
1-Methylnaphthalene	86-52-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	x	x	x	x	x	<0.005	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	x	x	x	x	x	<0.005	x
2-Acetylaminofluorene ¹	53-96-3	mg/L	-	x	x	x	x	x	x	x	<0.02	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2-Picoline	109-06-8	mg/L	-	x	x	x	x	x	x	x	<0.01	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	x	x	x	x	x	<0.01	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	x	x	x	x	x	<0.01	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	x	x	x	x	x	<0.05	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	x	x	x	x	x	<0.02	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	x	x	x	x	x	<0.02	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	x	x	x	x	x	<0.02	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Acenaphthene ¹	83-32-9	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Acenaphthylene ¹	208-96-8	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Acetophenone ¹	98-86-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Aniline ¹	62-53-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Anthracene ¹	120-12-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Benzidine ¹	92-87-5	mg/L	-	x	x	x	x	x	x	x	<0.05	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Benzo (a) pyrene ¹	205-99-2	mg/L	-	x	x	x	x	x	x	x	<0.02	x
Benzo (b) fluoranthene ¹	191-24-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Benzo (g,h,i) perylene ¹	207-08-9	mg/L	-	x	x	x	x	x	x	x	<0.02	x

APPENDIX B

Las Cruces Foothills Landfill MW-6

Las Cruces Foothills Landfill monitoring well MW-6											baseline	standard
constituent	CAS Number	unit	GWPS							average	deviation	
date				6/26/13	6/16/16	12/27/16	6/27/17	12/6/17	12/13/18	7/15/03 to 12/2/04	7/15/03 to 12/2/04	
Benzo (k) fluoranthene ¹	50-32-8	mg/L	0.0002	x	x	x	x	x	x	<0.0001	x	
Benzoic acid ¹	65-85-0	mg/L		x	x	x	x	x	x	<0.05	x	
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x	x	x	x	x	<0.01	x	
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	x	x	x	x	x	<0.01	x	
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	x	x	x	x	x	x	<0.01	x	
bis (2-Chloroisopropyl) ether (bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	x	x	x	x	x	x	<0.01	x	
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	x	x	x	x	x	<0.02	x	
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	x	x	x	x	x	<0.01	x	
Carbazole	86-74-8	mg/L	-	x	x	x	x	x	x	<0.005	x	
Chlorobenzilate ¹	510-15-6	mg/L	-	x	x	x	x	x	x	<0.01	x	
Chrysene ¹	218-01-9	mg/L	-	x	x	x	x	x	x	<0.01	x	
Diallate ¹	2303-16-4	mg/L	-	x	x	x	x	x	x	<0.01	x	
Dibenz (a,j) acridine	224-42-0	mg/L	-	x	x	x	x	x	x	<0.01	x	
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	x	x	x	x	x	x	<0.01	x	
Dibenzofuran ¹	132-64-9	mg/L	-	x	x	x	x	x	x	<0.01	x	
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x	x	x	
Diethylphthalate ¹	84-66-2	mg/L	-	x	x	x	x	x	x	<0.01	x	
Dimethylphthalate ¹	131-11-3	mg/L	-	x	x	x	x	x	x	<0.01	x	
Di-n-butylphthalate ¹	84-74-2	mg/L	-	x	x	x	x	x	x	<0.01	x	
Di-n-octylphthalate ¹	117-84-0	mg/L	-	x	x	x	x	x	x	<0.01	x	
Diphenylamine ¹	122-39-4	mg/L	-	x	x	x	x	x	x	<0.01	x	
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	x	x	x	x	x	<0.02	x	
Fluoranthene ¹	206-44-0	mg/L	-	x	x	x	x	x	x	<0.01	x	
Fluorene ¹	86-73-7	mg/L	-	x	x	x	x	x	x	<0.01	x	
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	x	x	x	x	x	<0.001	x	
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	x	x	x	x	x	<0.01	x	
Hexachloroethane ¹	67-72-1	mg/L	-	x	x	x	x	x	x	<0.05	x	
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x	x	x	x	x	<0.01	x	
HMX ¹	2691-41-0	mg/L	-	x	x	x	x	x	x	x	x	
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	x	x	x	x	x	x	<0.01	x	
Isophorone ¹	78-59-1	mg/L	-	x	x	x	x	x	x	<0.01	x	
Isosafrole ¹	120-58-1	mg/L	-	x	x	x	x	x	x	<0.01	x	
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	x	x	x	x	<0.02	x	
Methapyrilene ¹	91-80-5	mg/L	-	x	x	x	x	x	x	<0.02	x	
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	x	x	x	<0.01	x	
Naphthalene ¹	91-20-3	mg/L	0.03	x	x	x	x	x	x	<0.01	x	
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	x	x	x	x	<0.01	x	
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x	<0.02	x	
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x	<0.002	x	
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	x	<0.01	x	
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x	<0.01	x	
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	<0.005	x	
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x	<0.01	x	
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x	<0.02	x	
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x	<0.04	x	
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x	<0.002	x	
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x	<0.01	x	
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	<0.01	x	
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	<0.02	x	
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	<0.01	x	
Phenanthrene ¹	85-01-8	mg/L	-	x	x	x	x	x	x	<0.001	x	
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	<0.01	x	
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	<0.01	x	
Pyrene ¹	129-00-0	mg/L	-	x	x	x	x	x	x	<0.01	x	
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	<0.01	x	
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	<0.01	x	
sym-Trinitrobenzene ¹ (1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	<0.01	x	
Semi Volatile Organic Compounds - Phenolics												
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	x	<0.01	x	
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x	<0.01	x	
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	x	<0.01	x	
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x	<0.01	x	
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	x	<0.01	x	
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x	<0.05	x	
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	x	<0.01	x	
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x	<0.01	x	
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	x	<0.01	x	
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	<0.01	x	
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	x	x	x	x	x	x	<0.02	x	
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	x	<0.05	x	
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	x	x	x	x	<0.005	x	
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x	<0.05	x	
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	<0.02	x	
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	<0.01	x	
Radium 226 and 228	NA	pCi/L	5									
Ra-226, total	NA	pCi/L	-	x	x	x	x	x	x	<2.5	x	
Ra-228, total	NA	pCi/L	-	x	x	x	x	x	x	<2.5	x	
Chlorinated Pesticides												
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	x	x	x	<0.001	x	
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	x	x	<0.001	x	
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	x	<0.001	x	
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	x	<0.01	x	
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	x	<0.0001	x	

APPENDIX B

Las Cruces Foothills Landfill MW-6

Las Cruces Foothills Landfill monitoring well MW-6

constituent	CAS Number	unit	GWPS							baseline	standard
										average	deviation
				6/26/13	6/16/16	12/27/16	6/27/17	12/6/17	12/13/18	7/15/03 to 12/2/04	7/15/03 to 12/2/04
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	alpha +	x
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	x	<0.0001	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	<0.0001	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	x	<0.001	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	x	<0.001	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	<0.001	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	x	<0.001	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	<0.001	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	<0.00002	x
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x	<0.001	x
gamma-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	<0.0001	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	see above	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	x	x	x	<0.001	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	x	x	x	<0.001	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	x	<0.02	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	x	x	<0.02	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	x	x	<0.01	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	x	<0.001	x
Polychlorinated Biphenyls (PCBs)¹			0.001								
Arochlor-1016	12674-11-2	mg/L	-	x	x	x	x	x	x	<0.0005	x
Arochlor-1221	11104-28-2	mg/L	-	x	x	x	x	x	x	<0.0005	x
Arochlor-1232	11141-16-5	mg/L	-	x	x	x	x	x	x	<0.0005	x
Arochlor-1242	53469-21-9	mg/L	-	x	x	x	x	x	x	<0.0005	x
Arochlor-1248	12672-29-6	mg/L	-	x	x	x	x	x	x	<0.0005	x
Arochlor-1254	11097-69-1	mg/L	-	x	x	x	x	x	x	<0.0005	x
Arochlor-1260	11096-82-5	mg/L	-	x	x	x	x	x	x	<0.0005	x
Other Pesticides and Herbicides¹											
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	x	x	<0.002	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	x	x	<0.01	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	x	x	<0.02	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	x	x	<0.02	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	x	x	<0.01	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	x	x	<0.02	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x	x	x	<0.01	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	x	x	x	<0.01	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	x	x	x	<0.01	x
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	x	<0.01	x
Silvex ¹ (2,4,5-TP)	93-72-1	mg/L	-	x	x	x	x	x	x	<0.002	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x	<0.02	x

* baseline averages and standard deviations are based on 1999 and 2000 data only as per requirements in Environ

¹ hazardous

x parameter not analyzed

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(#) Scanned for and not detected , breaks down almost immediately in water.

MW-7

APPENDIX B
Las Cruces Foothills Landfill MW-7

Las Cruces Foothills Landfill monitoring well MW-7

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-7									
				7/15/03	8/27/03	9/29/03	10/27/03	11/25/03	12/29/03	12/2/04	12/14/05	12/12/06	1/18/08
Field Parameters													
water level elevation		ft amsl	-	3914.57	3914.14	3914.10	3914.13	3914.16	3913.83	3912.61	3911.55	3910.82	3910.66
conductivity		µS/cm	-	402	300	330	330	320	320	341	382	370	400
pH		pH units	6-9	7.80	7.80	7.90	7.70	7.80	7.70	7.83	7.90	7.50	7.45
temperature		deg F	-	102.0	97.3	99.7	100.9	100.0	98.1	96.3	95.5	93.2	99.0
Major Ions													
calcium	7440-70-2	mg/L	-	35.2	34	36	37	36	39	41	45	45	49
chloride	16887-00-6	mg/L	250	11	10	10	11	10	10	11	12	14	16
fluoride ¹	16984-48-8	mg/L	1.6	0.7	0.8	0.8	0.8	0.7	0.74	x	x	x	x
magnesium	7439-95-4	mg/L	-	4.64	4	4.4	4.4	4.2	4.8	5.2	5.4	5.5	5.9
potassium	7440-09-7	mg/L	-	2.8	1.8	1.9	1.8	1.8	1.9	1.9	2.2	1.8	2.1
sodium	82115-62-6	mg/L	-	38.4	24	26	27	25	25	26	28	26	26
sulfate	18785-72-3	mg/L	600	40	39	40	41	39	39	40	39	44	48
alkalinity	NA	mg/L	-	123	130	120	120	120	120	130	120	120	120
bicarbonate alkalinity	71-52-3	mg/L	-	122	130	120	120	120	120	130	120	120	120
carbonate alkalinity	3812-32-6	mg/L	-	<20	<2.0	<2.0	<2.0	<2.0	<2.0	<4.0	<2.0	<2.0	<2.0
total dissolved solids	NA	mg/L	1,000	230	250	230	240	240	210	210	250	260	260
Nitrogen Species													
ammonia as N	1331-21-6	mg/L	-	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Kjeldahl nitrogen	7727-37-9	mg/L	-	<1	<1.0	<1.0	<1.0	<1.0	<1.0	x	x	x	x
nitrate as N	14797-55-8	mg/L	10	0.6	<1.0	<1.0	<1.0	<1.0	<1.0	0.54	<1.0	1	1.2
nitrite	14797-65-0	mg/L	-	<0.1	<1.0	<1.0	<1.0	<1.0	<1.0	x	x	x	x
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x	x	x	x
Metals													
aluminum	7429-90-5	mg/L	5.0	1.56	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	x	x	x
antimony ¹	7440-36-0	mg/L	0.006	<0.0004	<0.003	<0.003	<0.003	<0.003	<0.003	x	x	x	x
arsenic ¹	7440-38-2	mg/L	0.01	0.0016	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
barium ¹	7440-39-3	mg/L	1.0	0.0286	<0.02	0.04	0.03	0.04	0.04	x	x	x	x
beryllium ¹	7440-41-7	mg/L	0.004	0.0002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x	x	x
boron	7440-42-8	mg/L	0.75	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	x	x	x	x
cadmium ¹	7440-43-9	mg/L	0.005	<0.0001	<0.002	<0.002	<0.002	<0.002	<0.002	x	x	x	x
chromium ¹	7440-47-3	mg/L	0.05	0.007	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
cobalt ¹	7440-48-4	mg/L	0.05	0.00052	<0.03	<0.03	<0.03	<0.03	<0.03	x	x	x	x
copper ¹	7440-50-8	mg/L	1.0	0.0012	<0.06	<0.06	<0.06	<0.06	<0.06	x	x	x	x
iron	7439-89-6	mg/L	1.0	1.32	<0.1	<0.1	<0.1	<0.1	0.33	0.23	<0.1	<0.1	<0.1
lead ¹	7439-92-1	mg/L	0.05	<0.0001	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
manganese	7439-96-5	mg/L	0.2	0.086	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
mercury ¹	7439-97-6	mg/L	0.002	0.0003	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x	x
molybdenum	7439-98-7	mg/L	1.0	<0.010	<0.75	<0.75	<0.75	<0.75	<0.75	x	x	x	x
nickel ¹	7440-02-0	mg/L	0.2	0.00686	<0.05	<0.05	<0.05	<0.05	<0.05	x	x	x	x
selenium ¹	7782-49-2	mg/L	0.05	0.0013	<0.005	<0.005	<0.005	<0.005	<0.005	x	x	x	x
silver ¹	7440-22-4	mg/L	0.05	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
thallium ¹	7440-28-0	mg/L	0.002	<0.00003	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x	x
tin ¹	7440-31-5	mg/L	-	<0.10	x	x	x	x	<0.4	x	x	x	x
uranium ¹	7440-61-1	mg/L	0.03	0.003	<2.5	<2.5	<2.5	<2.5	<2.5	x	x	x	x
vanadium ¹	7440-62-2	mg/L	-	<0.050	<0.08	<0.08	<0.08	<0.08	<0.08	x	x	x	x
zinc	7440-66-6	mg/L	10.0	0.088	<0.05	<0.05	<0.05	<0.05	<0.05	x	x	x	x
total organic carbon	-	mg/L	-	4.6	<1.0	<1.0	<1.0	2.4	<0.5	0.5	<0.5	<0.5	<1.0
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x	x	x	x
sulfide ¹	18496-25-8	mg/L	-	<0.1	x	x	x	x	<4.0	x	x	x	x
cyanide ¹	57-12-5	mg/L	0.2	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	x	x	x	x
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	<0.005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.0025
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	(^^)	(^^)	(^^)	(^^)	(^^)	(^^)	(^^)	x	x	x
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.0005	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.0005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloropropene ¹	563-58-6	mg/L	-	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	x	x	x	x
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.010	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x	x	x
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	<0.0005	x	x	x	x	x	x	x	x	x
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
1,3-Dichloropropane ¹	142-28-9	mg/L	-	<0.0005	<0.005	<0.01	<0.01	<0.01	<0.01	x	x	x	x
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.0005	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
2,2-Dichloropropane ¹	78-87-5	mg/L	-	<0.0005	<0.0151	<0.015	<0.015	<0.015	<0.015	x	x	x	x
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.025	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-Chlorotoluene ¹	95-49-8	mg/L	-	<0.0005	x	x	x	x	x	x	x	x	x
2-Hexanone (Butyl Ketone) ¹	78-93-3	mg/L	-	<0.025	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
4-Chlorotoluene ¹	106-43-4	mg/L	-	<0.0005	x	x	x	x	x	x	x	x	x
4-Methyl-2-pentanone ¹	108-10-1	mg/L	-	<0.025	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
Acetone ¹	67-64-1	mg/L	-	<0.025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acetonitrile ¹	75-05-8	mg/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Acrolein ¹	107-02-8	mg/L	-	<0.025	<0.1	<0.1	<0.1	<0.1	<0.1	x	x	x	x
Acrylonitrile ¹	107-13-1	mg/L	-	<0.025	<0.2	<0.2	<0.2	<0.2	<0.2	x	x	x	x
Allyl chloride ¹	107-05-1	mg/L	-	x	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Benzene ¹	71-43-2	mg/L	0.005	<									

APPENDIX B
Las Cruces Foothills Landfill MW-7

Las Cruces Foothills Landfill monitoring well MW-7

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-7										
				7/15/03	8/27/03	9/29/03	10/27/03	11/25/03	12/29/03	12/2/04	12/14/05	12/12/06	1/18/08	
Methyl methanesulfonate ¹	66-27-3	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Nitrobenzene ¹	98-95-3	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	<0.010	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	<0.020	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	<0.02	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	<0.020	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	<0.020	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Pyridine	110-86-1	mg/L	-	<0.010	x	x	x	x	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-TNB)	99-35-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Semi Volatile Organic Compounds - Phenolics														
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	<0.050	<0.05	<0.05	<0.05	<0.05	<0.05	x	x	x	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	<0.005	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	<0.050	<0.05	<0.05	<0.05	<0.05	<0.05	x	x	x	x	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	<0.020	<0.005	<0.005	<0.005	<0.005	<0.005	x	x	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	<0.050	<0.05	<0.05	<0.05	<0.05	<0.05	x	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	<0.020	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x	x
Radium 226 and 228	NA	pCi/L	5	1.0										
Ra-226, total	NA	pCi/L	-	0.4	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	x	x	x	x
Ra-228 ¹ , total	NA	pCi/L	-	0.6	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	x	x	x	x
Chlorinated Pesticides														
4,4'-DDD (p,p'-DDD) ¹	309-00-2	mg/L	-	<0.0001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	319-84-6	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x	x	x
4,4'-DDT (p,p'-DDT) ¹	319-85-7	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x	x	x
aldrin ¹	319-86-8	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x	x	x
alpha-BHC ¹	319-86-8	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	<0.0001	alpha +	alpha +	alpha +	alpha +	alpha +	alpha +	x	x	x	x
beta-BHC ¹	5103-74-2	mg/L	-	<0.0001	see above	see above	see above	see above	see above	see above	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	x	x	x
delta-BHC ¹	72-54-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x	x
Dieldrin ¹	72-55-9	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	50-29-3	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	60-57-1	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x	x
Endosulfan sulfate ¹	959-98-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x	x
Endrin aldehyde ¹	33213-65-9	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x	x
Endrin ketone	1031-07-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x	x
gamma-BHC ¹	7421-93-4	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x	x
gamma-Chlordane ¹	53494-70-5	mg/L	-	<0.00002	x	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	76-44-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x	x
Heptachlor ¹	1024-57-3	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	<0.025	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹														
Arochlor-1016	12674-11-2	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x	x	x
Arochlor-1221	11104-28-2	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x	x	x
Arochlor-1242	53469-21-9	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x	x	x
Arochlor-1248	12672-29-6	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x	x	x
Arochlor-1254	11097-69-1	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x	x	x
Arochlor-1260	11096-82-5	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x	x	x
Other Pesticides and Herbicides¹														
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	<0.0005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	<0.005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Famphur ¹	52-58-7	mg/L	-	<0.0005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.					

APPENDIX B
Las Cruces Foothills Landfill MW-7

Las Cruces Foothills Landfill monitoring well MW-7

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-7										RESULTS FOR	
				12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/19/12	6/26/13	12/19/13	6/26/14	12/11/14	6/18/15	
Field Parameters															
water level elevation		ft amsl	-	3912.28	3911.91	3914.58	3915.19	3914.07	3913.82	3909.46	3908.16	3908.76	3908.71	3908.76	
conductivity		µS/cm	-	390	532	460	448	430	430	470	537	501	462	474	
pH		pH units	6-9	7.84	7.35	7.82	7.72	7.41	6.86	6.43	6.89	6.25	6.81	6.76	
temperature		deg F	-	95.2	95.4	99.0	96.3	78.4	82.6	100.6	99.3	102.4	97.7	104.0	
Major Ions															
calcium	7440-70-2	mg/L	-	43	51	53	55	53	53	57	65	59	50	64	
chloride	16887-00-6	mg/L	250	18	20	19	20	19	19	18	20	19	19	21	
fluoride ¹	16984-48-8	mg/L	1.6	0.69	x	0.65	x	x	x	x	x	x	0.60	x	
magnesium	7439-95-4	mg/L	-	5.4	6.3	6.7	6.5	6.6	6.6	6.7	7.4	7.1	5.9	7.5	
potassium	7440-09-7	mg/L	-	1.8	2.1	2.1	2.2	2.2	2.2	2.3	2.4	2.2	2.1	2.1	
sodium	82115-62-6	mg/L	-	24	27	28	28	28	28	28	29	28	25	29	
sulfate	18785-72-3	mg/L	600	51	62	62	64	65	65	67	75	74	69	80	
alkalinity	NA	mg/L	-	120	120	120	120	120	120	130	140	140	130	132	
bicarbonate alkalinity	71-52-3	mg/L	-	120	120	120	120	120	120	130	140	140	130	132	
carbonate alkalinity	3812-32-6	mg/L	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
total dissolved solids	NA	mg/L	1,000	270	280	296	295	288	288	310	348	325	306	335	
Nitrogen Species															
ammonia as N	1331-21-6	mg/L	-	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Kjeldahl nitrogen	7727-37-9	mg/L	-	<1.0	x	x	x	x	x	x	x	x	<1.0	x	
nitrate as N	14797-55-8	mg/L	10	1.1	1.2	0.73	0.52	0.63	0.63	0.87	<1.0	0.97	0.85	0.94	
nitrite	14797-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
total nitrogen	-	mg/L	-	1.1	x	x	x	x	x	x	x	x	<1.0	x	
Metals															
aluminum	7429-90-5	mg/L	5.0	<0.02	x	0.04	x	x	x	x	x	x	0.077	x	
antimony ¹	7440-36-0	mg/L	0.006	<0.001	<0.001	<0.001	0.00024	<0.0025	<0.0025	<0.001	<0.001	<0.001	<0.001	<0.001	
arsenic ¹	7440-38-2	mg/L	0.01	0.006	<0.002	<0.001	0.0007	<0.0025	<0.0025	0.0011	<0.001	<0.001	<0.001	<0.001	
barium ¹	7440-39-3	mg/L	1.0	0.035	0.039	0.042	0.042	0.044	0.044	0.049	0.054	0.048	0.042	0.051	
beryllium ¹	7440-41-7	mg/L	0.004	<0.003	x	<0.001	0.00035	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003	
boron	7440-42-8	mg/L	0.75	<0.04	x	<0.04	x	x	x	x	x	x	<0.04	x	
cadmium ¹	7440-43-9	mg/L	0.005	<0.002	<0.0020	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
chromium ¹	7440-47-3	mg/L	0.05	<0.006	<0.0060	<0.006	0.00036	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	
cobalt ¹	7440-48-4	mg/L	0.05	<0.006	<0.0060	<0.006	0.0009	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	
copper ¹	7440-50-8	mg/L	1.0	0.0061	0.027	0.016	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	
iron	7439-89-6	mg/L	1.0	<0.05	0.29	0.091	0.018	0.087	0.087	<0.02	<0.02	<0.05	0.029	<0.05	
lead ¹	7439-92-1	mg/L	0.05	<0.005	<0.0050	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.001	<0.005	
manganese	7439-96-5	mg/L	0.2	0.0032	0.0076	0.0044	0.0033	0.0039	0.0039	0.0042	0.0045	0.0054	0.0039	0.0048	
mercury ¹	7439-97-6	mg/L	0.002	<0.0002	x	<0.0002	x	x	x	x	x	x	<0.0002	x	
molybdenum	7439-98-7	mg/L	1.0	<0.008	x	<0.008	x	x	x	x	x	x	<0.008	x	
nickel ¹	7440-02-0	mg/L	0.2	<0.01	0.02	<0.01	0.0011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
selenium ¹	7782-49-2	mg/L	0.05	0.002	<0.001	0.00106	0.0016	<0.0025	<0.0025	0.0028	0.0015	0.0017	0.0017	0.0015	
silver ¹	7440-22-4	mg/L	0.05	<0.005	<0.0050	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
thallium ¹	7440-28-0	mg/L	0.002	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.0025	<0.001	<0.001	<0.001	<0.001	<0.0005	
tin ¹	7440-31-5	mg/L	-	<0.1	x	x	x	x	x	x	x	x	x	x	
uranium ¹	7440-61-1	mg/L	0.03	0.003	x	x	x	x	x	x	x	x	0.0038	x	
vanadium ¹	7440-62-2	mg/L	-	<0.05	<0.050	<0.05	0.0044	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
zinc	7440-66-6	mg/L	10.0	<0.02	<0.020	<0.02	0.0068	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.02	
total organic carbon	-	mg/L	-	<1.0	<1.0	<1.0	0.38	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
phosphate	14265-44-2	mg/L	-	<0.50	x	<0.50	x	x	x	x	x	x	<0.50	x	
sulfide ¹	18496-25-8	mg/L	-	2	x	x	x	x	x	x	x	x	x	x	
cyanide ¹	57-12-5	mg/L	0.2	<0.005	x	x	x	x	x	x	x	x	<0.01	x	
perchlorate ¹	14797-73-0	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	
total phenolics ¹	-	mg/L	0.005	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	(^^)	x	x	x	x	x	x	x	x	(^^)	x	
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.005	<0.001	<0.001	0.00065	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	<0.001	<0.001	<0.001	0.00033	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,1-Dichloropropene ¹	563-58-6	mg/L	-	<0.005	x	x	x	x	x	x	x	x	x	x	
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	<0.001	<0.001	x	x	x	x	x	x	x	x	x	
1,3-Dichloropropane ¹	142-28-9	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
2,2-Dichloropropane ¹	78-87-5	mg/L	-	<0.015	x	x	x	x	x	x	x	x	x	x	
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
2-Chlorotoluene ¹	95-49-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
2-Hexanone (Butyl Ketone) ¹	78-93-3	mg/L	-	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
4-Chlorotoluene ¹	106-43-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
4-Methyl-2-pentanone ¹	108-10-1	mg/L	-	<0.015	<0.01	<0.01	<0.01								

APPENDIX B
Las Cruces Foothills Landfill MW-7

Las Cruces Foothills Landfill monitoring well MW-7

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-7										RESULTS FOR	
				12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/19/12	6/26/13	12/19/13	6/26/14	12/11/14	6/18/15	
Methyl methanesulfonate ¹	66-27-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	<0.001	x	x	x	x	x	x	x	x	x	<0.002	x
Nitrobenzene ¹	98-95-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
Pyridine	110-86-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Semi Volatile Organic Compounds - Phenolics															
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	<0.001	x	x	x	x	x	x	x	x	x	x	x
Radium 226 and 228	NA	pCi/L	5	2.02										2.47	
Ra-226, total	NA	pCi/L	-	0.12	x	x	x	x	x	x	x	x	x	0.411	x
Ra-228 ¹ , total	NA	pCi/L	-	1.9	x	x	x	x	x	x	x	x	x	2.06	x
Chlorinated Pesticides															
4,4'-DDD (p,p'-DDD) ¹	309-00-2	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	319-84-6	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x	x	x
4,4'-DDT (p,p'-DDT) ¹	319-85-7	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x	x	x
aldrin ¹	319-86-8	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x	x	x
alpha-BHC ¹	319-86-8	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
beta-BHC ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	x	x	x	x
delta-BHC ¹	72-54-8	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x	x	x
Dieldrin ¹	72-55-9	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	50-29-3	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	60-57-1	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x	x	x
Endosulfan sulfate ¹	959-98-8	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x	x	x
Endrin aldehyde ¹	33213-65-9	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x	x	x
Endrin ketone	1031-07-8	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x	x	x
gamma-BHC ¹	7421-93-4	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x	x	x
gamma-Chlordane ¹	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	76-44-8	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x	x	x
Heptachlor ¹	1024-57-3	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹															
Arochlor-1016	12674-11-2	mg/L	-	<0.00025	x	x	x	x	x	x	x	x	x	<0.00025	x
Arochlor-1221	11104-28-2	mg/L	-	<0.00025	x	x	x	x	x	x	x	x	x	<0.00025	x
Arochlor-1232	11141-16-5	mg/L	-	<0.00025	x	x	x	x	x	x	x	x	x	<0.00025	x
Arochlor-1242	53469-21-9	mg/L	-	<0.00025	x	x	x	x	x	x	x	x	x	<0.00025	x
Arochlor-1248	12672-29-6	mg/L	-	<0.00025	x	x	x	x	x	x	x	x	x	<0.00025	x
Arochlor-1254	11097-69-1	mg/L	-	<0.00025	x	x	x	x	x	x	x	x	x	<0.00025	x
Arochlor-1260	11096-82-5	mg/L	-	<0.00025	x	x	x	x	x	x	x	x	x	<0.00025	x
Other Pesticides and Herbicides¹															
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	<0.00117	x	x	x	x	x	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	<0.00005	x	x	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	<0.00005	x	x	x	x	x	x	x	x	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	<0.00005	x	x	x	x	x	x	x	x	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
Famphur ¹	52-58-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
Phorate ¹	298-02-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x
Silvex ¹ (2,4,5-TP)	93-72-1	mg/L	-	<0.00005	x	x	x	x	x	x	x	x	x	x	x
o,o-Diethyl o-pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x

¹ baseline averages and standard deviations are based on 1999 and 2000 data only as per requirements in Enviro:

¹ hazardous

x parameter not analyzed

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(#) Scanned for and not detected, breaks down almost immediately in water.

APPENDIX B
Las Cruces Foothills Landfill MW-7

Las Cruces Foothills Landfill monitoring well MW-7

constituent	CAS Number	unit	GWPS	MW-7							baseline	standard
				12/17/15	6/16/16	12/28/16	6/27/17	12/13/17	6/20/18	12/18/18	average	deviation
date											7/15/03 to	7/15/03 to
											12/2/04	12/2/04
Field Parameters												
water level elevation		ft amsl	-	3908.81	3908.76	3908.68	3908.69	3908.46	3908.55	3907.97	3,913.93	0.62
conductivity		µS/cm	-	492	468	489	495	637	648	606	334.71	32.27
pH		pH units	6-9	7.34	7.23	7.21	7.37	7.01	6.92	7.00	7.79	0.07
temperature		deg F	-	97.2	104.5	104.9	104.9	103.3	105.1	101.1	99.18	2.04
Major Ions												
calcium	7440-70-2	mg/L	-	59	61	61	64	79	88	81	36.89	2.39
chloride	16887-00-6	mg/L	250	20	19	20	20	21	21	19	10.43	0.53
fluoride ¹	16984-48-8	mg/L	1.6	x	x	x	x	x	x	x	0.76	<0.001
magnesium	7439-95-4	mg/L	-	7.3	7.3	7.4	7.5	9.7	10	9.5	4.52	0.40
potassium	7440-09-7	mg/L	-	2.2	2.2	2.3	2.2	2.6	2.6	2.6	1.99	0.36
sodium	82115-62-6	mg/L	-	30	30	30	29	33	36	31	27.34	4.97
sulfate	18785-72-3	mg/L	600	79	73	76	76	100	100	95	39.71	0.76
alkalinity	NA	mg/L	-	130.3	127.4	124.5	128.3	173.6	183.8	176.4	123.29	4.72
bicarbonate alkalinity	71-52-3	mg/L	-	130.3	127.4	124.5	128.3	173.6	183.8	176.4	123.14	4.74
carbonate alkalinity	3812-32-6	mg/L	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	x
total dissolved solids	NA	mg/L	1,000	335	312	328	336	411	428	399	230.00	15.28
Nitrogen Species												
ammonia as N	1331-21-6	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	x
Kjeldahl nitrogen	7727-37-9	mg/L	-	x	x	x	x	x	x	x	<1.0	x
nitrate as N	14797-55-8	mg/L	10	0.99	0.73	0.90	0.97	1.1	1.1	1.0	<1.0	x
nitrite	14797-65-0	mg/L	-	x	x	x	x	x	x	x	<1.0	x
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x	x	x
Metals												
aluminum	7429-90-5	mg/L	5.0	x	x	x	x	x	x	x	<3.0	x
antimony ¹	7440-36-0	mg/L	0.006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003	x
arsenic ¹	7440-38-2	mg/L	0.01	<0.001	<0.001	<0.001	<0.001	0.0015	0.00087	<0.001	<0.01	x
barium ¹	7440-39-3	mg/L	1.0	0.047	0.048	0.051	0.050	0.065	0.071	0.063	0.04	0.01
beryllium ¹	7440-41-7	mg/L	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.002	x
boron	7440-42-8	mg/L	0.75	x	x	x	x	x	x	x	<0.5	x
cadmium ¹	7440-43-9	mg/L	0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.002	x
chromium ¹	7440-47-3	mg/L	0.05	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.001	<0.01	x
cobalt ¹	7440-48-4	mg/L	0.05	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.001	<0.03	x
copper ¹	7440-50-8	mg/L	1.0	<0.006	<0.006	0.0071	<0.006	0.0041	<0.006	0.0021	<0.06	x
iron	7439-89-6	mg/L	1.0	0.022	<0.02	0.033	0.031	<0.02	<0.02	<0.02	0.63	0.60
lead ¹	7439-92-1	mg/L	0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.01	x
manganese	7439-96-5	mg/L	0.2	0.004	0.0034	0.0040	0.0038	0.0053	0.0055	0.0052	<0.03	x
mercury ¹	7439-97-6	mg/L	0.002	x	x	x	x	x	x	x	<0.001	x
molybdenum	7439-98-7	mg/L	1.0	x	x	x	x	x	x	x	<0.75	x
nickel ¹	7440-02-0	mg/L	0.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.05	x
selenium ¹	7782-49-2	mg/L	0.05	<0.005	<0.005	<0.005	0.0013	0.0016	0.0015	0.0012	<0.005	x
silver ¹	7440-22-4	mg/L	0.05	<0.005	<0.005	<0.005	<0.005	0.0018	0.0024	<0.001	<0.01	x
thallium ¹	7440-28-0	mg/L	0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	x
tin ¹	7440-31-5	mg/L	-	x	x	x	x	x	x	x	<0.4	x
uranium ¹	7440-61-1	mg/L	0.03	x	x	x	x	x	x	x	<2.5	x
vanadium ¹	7440-62-2	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.0042	0.0024	<0.08	x
zinc	7440-66-6	mg/L	10.0	<0.01	<0.01	<0.01	0.012	<0.01	<0.01	<0.01	<0.05	x
total organic carbon	-	mg/L	-	<1.0	<1.0	<1.0	<1.0	0.38	0.59	<1.0	2.50	2.05
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x	x	x
sulfide ¹	18496-25-8	mg/L	-	x	x	x	x	x	x	x	<4.0	x
cyanide ¹	57-12-5	mg/L	0.2	x	x	x	x	x	x	x	<0.1	x
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.003	x
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	x	x	x	x	x	x	x	(^^)	x
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	x
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.001	<0.001	<0.001	<0.001	0.00085	0.0013	<0.001	<0.005	x
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	0.00032	0.00038	<0.001	<0.001	x
1,1-Dichloropropene ¹	563-58-6	mg/L	-	x	x	x	x	x	x	x	<0.005	x
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.00002	<0.00002	<0.00002	<0.000019	<0.000019	<0.000019	<0.000019	<0.0001	x
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	x
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	x	x	x	x	x	x	x	<0.01	x
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	x
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	x	x	x	x	x	x	x	<0.01	x
1,3-Dichloropropane ¹	142-28-9	mg/L	-	x	x	x	x	x	x	x	<0.01	x
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.015	x
2,2-Dichloropropane ¹	78-87-5	mg/L	-	x	x	x	x	x	x	x	<0.015	x
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	0.0016	<0.01	<0.01	<0.01	x
2-Chlorotoluene ¹	95-49-8	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
2-Hexanone (Butyl Ketone) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	x
4-Chlorotoluene ¹	106-43-4	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
4-Methyl-2-pentanone ¹	108-10-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.015	x
Acetone ¹	67-64-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	0.0025	<0.01	<0.01	<0.1	x
Acetonitrile ¹	75-05-8	mg/L	-	x	x	x	x	x	x	x	<0.1	x
Acrolein ¹	107-02-8	mg/L	-	x	x	x	x	x	x	x	<0.1	x
Acrylonitrile ¹	107-13-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.2	x
Allyl chloride ¹	107-05-1	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Benzene ¹	71-43-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	0.00063	0.00081	<0.001	<0.001	x
Bis(chloromethyl) ether ¹	542-88-1	mg/L	-	x	x	x	x	x	x	x	x	x
Bromochloromethane ¹	74-97-5	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x
Bromomethane (methyl bromide) ¹	74-83-9	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.02	x
Carbon Disulfide ¹	75-15-00	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	x
Carbon Tetrachloride ¹	56-23-5	mg/L	0.005	<0.001	<0.001	<						

APPENDIX B
Las Cruces Foothills Landfill MW-7

Las Cruces Foothills Landfill monitoring well MW-7

constituent	CAS Number	unit	GWPS	MW-7							baseline	standard
				12/17/15	6/16/16	12/28/16	6/27/17	12/13/17	6/20/18	12/18/18	average	deviation
date											7/15/03 to	7/15/03 to
											12/2/04	12/2/04
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	x	x	x	x	x	x	<0.05	x
Isopropylbenzene ¹	98-82-8	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	x	x	x	x	<0.005	x
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.04	x
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	x	x	x	x	<0.03	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.0025	<0.0025	<0.0025	<0.0025	0.0019	0.0028	<0.0025	<0.001	x
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
Propionitrile ¹	107-12-0	mg/L	-	x	x	x	x	x	x	x	<0.06	x
Propylbenzene ¹	103-65-1	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
Styrene ¹	100-42-5	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	x
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	x	x	x	x	x	x	x	<0.005	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.012	0.016	0.017	0.018	0.013	0.013	0.014	0.019	0.001
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Toluene ¹	108-88-3	mg/L	0.75	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.019	0.016
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	x
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	x
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	x
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	x
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.0023	0.0036	0.0032	0.0037	0.0029	0.0037	0.0032	0.0028	0.0003
Trichlorofluoromethane ¹	75-69-4	mg/L	-	0.0019	0.0038	0.0034	0.0042	0.0021	0.0025	0.0022	0.0032	x
Vinyl acetate ¹	108-05-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	x
Vinyl chloride ¹	75-01-4	mg/L	0.001	<0.0004	0.00041	<0.0004	<0.0004	0.00037	0.00045	0.00041	<0.0004	x
Trihalomethanes (THM)												
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.005	x
Bromoform ¹	75-25-2	mg/L	-	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.015	x
Chloroform ¹	67-66-3	mg/L	0.1	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.005	x
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.005	x
Semi Volatile Organic Compounds												
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	x	x	x	x	<0.005	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	x	x	x	x	<0.01	x
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	x	x	x	<0.005	x
1-Methylnaphthalene	86-52-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	x	x	x	x	x	<0.005	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	x	x	x	x	x	<0.005	x
2-Acetylaminofluorene ¹	53-96-3	mg/L	-	x	x	x	x	x	x	x	<0.02	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2-Picoline	109-06-8	mg/L	-	x	x	x	x	x	x	x	<0.01	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	x	x	x	x	x	<0.01	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	x	x	x	x	x	<0.01	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	x	x	x	x	x	<0.05	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	x	x	x	x	x	<0.02	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	x	x	x	x	x	<0.02	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	x	x	x	x	x	<0.02	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	<0.01	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Acenaphthene ¹	83-32-9	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Acenaphthylene ¹	208-96-8	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Acetophenone ¹	98-86-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Aniline ¹	62-53-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Anthracene ¹	120-12-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Benzidine ¹	92-87-5	mg/L	-	x	x	x	x	x	x	x	<0.05	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Benzo (a) pyrene ¹	205-99-2	mg/L	-	x	x	x	x	x	x	x	<0.02	x
Benzo (b) fluoranthene ¹	191-24-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Benzo (g,h,i) perylene ¹	207-08-9	mg/L	-	x	x	x	x	x	x	x	<0.02	x
Benzo (k) fluoranthene ¹	50-32-8	mg/L	0.0002	x	x	x	x	x	x	x	<0.0001	x
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	x	x	<0.05	x
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x	x	x	x	x	x	<0.01	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	x	x	x	x	x	x	<0.01	x
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	x	x	x	x	x	x	x	<0.01	x
bis (2-Chloroisopropyl) ether (bis (2-chloro-1-methylethyl) eth)	108-60-1	mg/L	-	x	x	x	x	x	x	x	<0.01	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	x	x	x	x	x	x	<0.02	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Carbazole	86-74-8	mg/L	-	x	x	x	x	x	x	x	<0.005	x
Chlorobenzilate ¹	510-15-6	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Chrysene ¹	218-01-9	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Diallate ¹	2303-16-4	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Dibenz (a,j) acridine	224-42-0	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Dibenzofuran ¹	132-64-9	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x	x	x	x
Diethylphthalate ¹	84-66-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Dimethylphthalate ¹	131-11-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Di-n-octylphthalate ¹	117-84-0	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Diphenylamine ¹	122-39-4	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	x	x	x	x	x	x	<0.02	x
Fluoranthene ¹	206-44-0	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Fluorene ¹	86-73-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	x	x	x	x	x	x	<0.001	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Hexachloroethane ¹	67-72-1	mg/L	-	x	x	x	x	x	x	x	<0.05	x
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
HMX ¹	2691-41-0	mg/L	-	x	x	x	x	x	x	x	x	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Isophorone ¹	78-59-1	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Isosafrole ¹	120-58-1	mg/L	-	x	x	x	x	x	x	x	<0.01	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	x	x	x	x	x	<0.02	x
Methapyrilene ¹	91-80-5	mg/L	-	x	x	x	x	x	x	x	<0.02	x

APPENDIX B
Las Cruces Foothills Landfill MW-7

Las Cruces Foothills Landfill monitoring well MW-7

constituent	CAS Number	unit	GWPS	MW-7							baseline	standard
				12/17/15	6/16/16	12/28/16	6/27/17	12/13/17	6/20/18	12/18/18	average	deviation
date												
											7/15/03 to	7/15/03 to
											12/2/04	12/2/04
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Naphthalene ¹	91-20-3	mg/L	0.03	x	x	x	x	x	x	x	<0.01	x
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x	x	<0.02	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x	x	<0.002	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	x	<0.005	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x	x	<0.01	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x	x	<0.02	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x	x	<0.04	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x	x	<0.002	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	x	<0.02	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Phenanthrene ¹	85-01-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Pyrene ¹	129-00-0	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x	<0.01	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
sym-Trinitrobenzene ¹ (1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Semi Volatile Organic Compounds - Phenolics												
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x	x	<0.05	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x	<0.01	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	x	x	x	x	x	x	x	<0.02	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	x	x	<0.05	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	x	x	x	x	x	<0.005	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x	x	<0.05	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x	<0.02	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	x	<0.01	x
Radium 226 and 228												
Ra-226, total	NA	pCi/L	5									
Ra-228, total	NA	pCi/L	-	x	x	x	x	x	x	x	<2.5	x
Chlorinated Pesticides												
4,4'-DDD (p,p'-DDD) ¹	309-00-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
4,4'-DDE (p,p'-DDE) ¹	319-84-6	mg/L	-	x	x	x	x	x	x	x	<0.0001	x
4,4'-DDT (p,p'-DDT) ¹	319-85-7	mg/L	-	x	x	x	x	x	x	x	<0.0001	x
aldrin ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	<0.0001	x
alpha-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	<0.0001	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	alpha +	x
beta-BHC ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	see above	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	x
delta-BHC ¹	72-54-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x
Dieldrin ¹	72-55-9	mg/L	-	x	x	x	x	x	x	x	<0.001	x
Endosulfan I (alpha-Endosulfan) ¹	50-29-3	mg/L	-	x	x	x	x	x	x	x	<0.001	x
Endosulfan II (beta-Endosulfan) ¹	60-57-1	mg/L	-	x	x	x	x	x	x	x	<0.001	x
Endosulfan sulfate ¹	959-98-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x
Endrin aldehyde ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	x	<0.001	x
Endrin ketone	1031-07-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x
gamma-BHC ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	x	<0.001	x
gamma-Chlordane ¹	53494-70-5	mg/L	-	x	x	x	x	x	x	x	<0.00002	x
Heptachlor epoxide ¹	76-44-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x
Heptachlor ¹	1024-57-3	mg/L	-	x	x	x	x	x	x	x	<0.001	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	x	x	<0.02	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	x	x	x	<0.02	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x
Polychlorinated Biphenyls (PCBs)¹												
Arochlor-1016	12674-11-2	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
Arochlor-1221	11104-28-2	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
Arochlor-1232	11141-16-5	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
Arochlor-1242	53469-21-9	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
Arochlor-1248	12672-29-6	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
Arochlor-1254	11097-69-1	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
Arochlor-1260	11096-82-5	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
Other Pesticides and Herbicides¹												
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	x	x	x	<0.002	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	x	x	x	<0.02	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	x	x	x	<0.02	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	x	x	x	<0.02	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x	x	x	x	<0.01	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Silvex ¹ (2,4,5-TP)	93-72-1	mg/L	-	x	x	x	x	x	x	x	<0.002	x
o,o-Diethyl o-pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x	x	<0.02	x

¹ baseline averages and standard deviations are based on 1999 and 2000 data only as per requirements in Enviro

¹ hazardous

x parameter not analyzed

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(#) Scanned for and not detected, breaks down almost immediately in water.

MW-8

APPENDIX B
Las Cruces Foothills Landfill MW-8

Las Cruces Foothills Landfill monitoring well MW-8

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-8									baseline	standard
				12/29/10	5/18/11	8/23/11	11/28/11	12/29/11	12/20/12	6/26/13	12/21/17	12/18/18	average	deviation
date														
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Phenacetin ¹	62-44-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Phenanthrene ¹	85-01-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Pronamide ¹	23950-58-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Pyrene ¹	129-00-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Pyridine	110-86-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
RDX ¹	121-82-4	mg/L	-	0.00148	<0.0001	<0.0001	x	x	x	x	x	x	<0.0001	x
Safrole ¹	94-59-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
sym-Trinitrobenzene ¹ (1,3,5-TNB)	99-35-4	mg/L	-	<0.0001	<0.0001	<0.0001	x	x	x	x	x	x	<0.0001	x
Semi Volatile Organic Compounds - Phenolics														
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
2-Chlorophenol ¹	95-57-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	<0.005	x	x	x	x	x	x	x	x	<0.005	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Pentachlorophenol ¹	87-86-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Radium 226 and 228	NA	pCi/L	5	0.752	1.29	2.41	0.507	0.199	x	x	x	x	1.03	0.87
Ra-226, total	NA	pCi/L	-	0.000	0.060	2.29	0.293	0.093	x	x	x	x	0.55	0.98
Ra-228 ¹ , total	NA	pCi/L	-	0.752	1.23	0.123	0.214	0.106	x	x	x	x	0.49	0.49
Chlorinated Pesticides														
4,4'-DDD (p,p'-DDD) ¹	309-00-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
4,4'-DDE (p,p'-DDE) ¹	319-84-6	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
4,4'-DDT (p,p'-DDT) ¹	319-85-7	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
aldrin ¹	319-86-8	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
alpha-BHC ¹	319-86-8	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
beta-BHC ¹	5103-74-2	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
Chlordane ¹	57-74-9	mg/L	0.002	<0.005	x	x	x	x	x	x	x	x	<0.005	x
delta-BHC ¹	72-54-8	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
Dieldrin ¹	72-55-9	mg/L	-	<0.001	x	x	x	x	x	x	x	x	<0.001	x
Endosulfan I (alpha-Endosulfan) ¹	50-29-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	<0.001	x
Endosulfan II (beta-Endosulfan) ¹	60-57-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	<0.001	x
Endosulfan sulfate ¹	959-98-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	<0.001	x
Endrin aldehyde ¹	33213-65-9	mg/L	-	<0.001	x	x	x	x	x	x	x	x	<0.001	x
Endrin ketone	1031-07-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	<0.001	x
gamma-BHC ¹	7421-93-4	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
gamma-Chlordane ¹	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	76-44-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	<0.001	x
Heptachlor ¹	1024-57-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	<0.001	x
Isodrin ¹	465-73-6	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Kepone ¹	143-50-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Methoxychlor ¹	72-43-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Toxaphene ¹	8001-35-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	<0.001	x
Polychlorinated Biphenyls (PCBs)¹														
Arochlor-1016	12674-11-2	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	<0.00025	x
Arochlor-1221	11104-28-2	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	<0.00025	x
Arochlor-1232	11141-16-5	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	<0.00025	x
Arochlor-1242	53469-21-9	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	<0.00025	x
Arochlor-1248	12672-29-6	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	<0.00025	x
Arochlor-1254	11097-69-1	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	<0.00025	x
Arochlor-1260	11096-82-5	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	<0.00025	x
Other Pesticides and Herbicides¹														
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	<0.000546	x	x	x	x	x	x	x	x	<0.000546	x
2,4,5-T ¹	93-76-5	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
Dimethoate ¹	60-51-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Dinoseb ¹	88-85-7	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
Disulfoton ¹	298-04-4	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Famphur ¹	52-58-7	mg/L	-	<0.005	x	x	x	x	x	x	x	x	<0.005	x
Methyl parathion ¹	298-00-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Phorate ¹	298-02-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Silvex ¹ (2,4,5-TP)	93-72-1	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x

¹ baseline averages and standard deviations are based on 1999 and 2000 data only as per requirements in EPA, Subpart 803., Ground Water Sampling and Analysis, 1995.

¹ hazardous

x parameter not analyzed

(#) Scanned for and not detected, breaks down almost immediately in water.

MW-9

APPENDIX B
Las Cruces Foothills Landfill MW-9

Las Cruces Foothills Landfill monitoring well MW-9

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-9												baseline	standard
																average	deviation
				12/29/10	5/18/11	8/23/11	11/28/11	12/29/11	12/20/12	6/26/13	12/28/16	6/28/17	12/19/17	12/20/18	12/29/10 to 12/29/11	12/29/10 to 12/29/11	
Field Parameters																	
water level elevation		ft amsl	-	3,844.86	3,844.93	3,844.61	3,844.20	3,845.25	3,842.85	3,838.88	3,837.73	3,837.90	3,837.24	3,836.84	3,844.77	0.39	
conductivity		µS/cm	-	3,700	4,638	3,150	3,500	3,320	3,300	2,800	3,110	1,877	1,436	2,406	3,662	583	
pH		pH units	6-9	7.27	6.48	6.33	6.30	6.46	6.45	6.62	6.69	6.86	6.54	6.76	6.57	0.40	
temperature		deg F	-	107.6	110.8	111.2	108.0	103.6	106.3	109.8	103.6	106.9	99.1	108.3	108.2	3.0	
Major Ions																	
calcium	7440-70-2	mg/L	-	180	170	150	160	170	150	120	130	68	130	100	166	11	
chloride	16887-00-6	mg/L	250	770	700	680	740	810	670	490	640	250	710	480	740.0	52.4	
fluoride ¹	16984-48-8	mg/L	1.6	1.4	1.5	1.5	1.4	1.3	x	x	x	x	x	x	1.42	0.08	
magnesium	7439-95-4	mg/L	-	37	33	30	32	35	32	24	29	14	25	18	33.4	2.7	
potassium	7440-09-7	mg/L	-	54	49	46	47	53	50	43	48	33	43	33	49.8	3.6	
sodium	82115-62-6	mg/L	-	510	490	430	450	470	450	390	430	260	420	360	470	32	
sulfate	18785-72-3	mg/L	600	240	210	200	220	210	190	170	150	130	130	120	216	15	
alkalinity	NA	mg/L	-	460	440	440	450	450	420	400	364.3	401.9	352	344.9	448	8	
bicarbonate alkalinity	71-52-3	mg/L	-	460	440	440	450	450	420	400	364.3	401.9	352	344.9	448	8	
carbonate alkalinity	3812-32-6	mg/L	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	x	
total dissolved solids	NA	mg/L	1,000	2,070	1,930	1,870	1,950	2,020	1,910	1,600	1,780	1,110	1,680	1,380	1,968	78	
Nitrogen Species																	
ammonia as N	1331-21-6	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	x	
Kjeldahl nitrogen	7727-37-9	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	x	x	x	x	x	x	<1.0	x	
nitrate as N	14797-55-8	mg/L	10	0.26	x	x	x	x	<0.1	<0.1	0.59	<1.0	0.30	0.20	x	x	
nitrite	14797-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	
total nitrogen	-	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	x	x	x	x	x	x	<1.0	x	
Metals																	
aluminum	7429-90-5	mg/L	5.0	<0.02	<0.02	<0.02	0.076	<0.02	x	x	x	x	x	x	0.076	x	
antimony ¹	7440-36-0	mg/L	0.006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
arsenic ¹	7440-38-2	mg/L	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0011	<0.001	<0.001	<0.001	<0.001	<0.001	x	
barium ¹	7440-39-3	mg/L	1.0	0.12	0.11	0.10	0.10	0.11	0.097	0.079	0.110	0.050	0.096	0.088	0.11	0.01	
beryllium ¹	7440-41-7	mg/L	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	x	
boron	7440-42-8	mg/L	0.75	0.39	0.35	0.35	0.34	0.37	x	x	x	x	x	x	0.36	0.02	
cadmium ¹	7440-43-9	mg/L	0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.002	x	
chromium ¹	7440-47-3	mg/L	0.05	<0.006	<0.006	<0.006	0.0084	<0.006	<0.006	<0.006	0.041	0.0093	0.029	0.067	<0.006	x	
cobalt ¹	7440-48-4	mg/L	0.05	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0025	<0.006	x	
copper ¹	7440-50-8	mg/L	1.0	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0046	<0.001	<0.006	x	
iron	7439-89-6	mg/L	1.0	0.32	0.25	0.17	0.31	0.092	0.066	0.052	0.28	0.31	0.65	1.0	0.23	0.10	
lead ¹	7439-92-1	mg/L	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.0005	<0.0005	<0.001	<0.005	x	
manganese	7439-96-5	mg/L	0.2	0.46	0.30	0.25	0.18	0.16	0.06	0.054	0.15	0.047	0.056	0.037	0.27	0.12	
mercury ¹	7439-97-6	mg/L	0.002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	x	x	x	x	x	x	<0.0002	x	
molybdenum	7439-98-7	mg/L	1.0	0.0093	0.0095	0.0084	<0.008	<0.008	x	x	x	x	x	x	0.0091	0.0006	
nickel ¹	7440-02-0	mg/L	0.2	0.12	0.024	0.072	0.098	0.070	0.13	0.18	0.16	0.17	0.21	0.17	0.077	0.036	
selenium ¹	7782-49-2	mg/L	0.05	<0.001	<0.001	<0.001	0.005	<0.001	<0.001	0.0037	0.0021	0.0012	<0.001	<0.001	0.005	x	
silver ¹	7440-22-4	mg/L	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.025	<0.005	<0.005	0.022	<0.001	<0.005	x	
thallium ¹	7440-28-0	mg/L	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.0005	<0.001	<0.001	x	
tin ¹	7440-31-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x	
uranium ¹	7440-61-1	mg/L	0.03	0.00424	0.00377	0.00403	0.004	0.00418	x	x	x	x	x	x	0.0040	0.0002	
vanadium ¹	7440-62-2	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.0037	<0.05	x	
zinc	7440-66-6	mg/L	10.0	<0.02	<0.02	<0.02	0.03	0.021	0.069	0.071	<0.01	0.038	0.088	0.026	0.026	0.006	
total organic carbon	-	mg/L	-	2.4	<1.0	2.4	<1.0	<1.0	<1.0	<1.0	1.3	2.6	1.4	1.1	2.4	0.0	
phosphate	14265-44-2	mg/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	x	x	x	x	x	x	<0.5	x	
sulfide ¹	18496-25-8	mg/L	-	<0.1	x	x	x	x	x	x	x	x	x	x	<0.1	x	
cyanide ¹	57-12-5	mg/L	0.2	<0.01	<0.01	<0.01	<0.02	<0.01	x	x	x	x	x	x	<0.02	x	
perchlorate ¹	14797-73-0	mg/L	-	<0.0001	<0.0001	x	x	x	x	x	x	x	x	x	<0.0001	x	
total phenolics ¹	-	mg/L	0.005	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	x	
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	x	x	<0.00025	x	
Volatile Organic Compounds																	
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
1,1-Dichloropropene ¹	563-58-6	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	<0.001	x	
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x	
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005										

APPENDIX B
Las Cruces Foothills Landfill MW-9

Las Cruces Foothills Landfill monitoring well MW-9

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-9												baseline	standard
				12/29/10	5/18/11	8/23/11	11/28/11	12/29/11	12/20/12	6/26/13	12/28/16	6/28/17	12/19/17	12/20/18	12/29/10 to 12/29/11	12/29/10 to 12/29/11	
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	
Propionitrile ¹	107-12-0	mg/L	-	<0.06	x	x	x	x	x	x	x	x	x	x	x	<0.06	
Propylbenzene ¹	103-65-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	
Styrene ¹	100-42-5	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	<0.001	x	x	x	x	x	x	x	x	x	x	x	<0.001	
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	
Toluene ¹	108-88-3	mg/L	0.75	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Trichloroethene (TCE) ¹	79-01-6	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Vinyl acetate ¹	108-05-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Vinyl chloride ¹	75-01-4	mg/L	0.001	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	
Trihalomethanes (THM)																	
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Chloroform ¹	67-66-3	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Semi Volatile Organic Compounds																	
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
1,2-Diphenylhydrazine	122-66-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	
1-Methylnaphthalene	86-52-2	mg/L	-	<0.01	<0.002	<0.002	<0.002	<0.002	x	x	x	x	x	x	x	<0.01	
1-Naphthylamine ¹	134-32-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	<0.0002	<0.0002	<0.0002	x	x	x	x	x	x	x	x	x	<0.0002	
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	<0.0001	<0.0001	<0.0001	x	x	x	x	x	x	x	x	x	<0.0001	
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	<0.0002	<0.0002	<0.0002	x	x	x	x	x	x	x	x	x	<0.0002	
2-Acetylaminofluorene ¹	53-96-3	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
2-Chloronaphthalene ¹	91-58-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
2-Methylnaphthalene ¹	91-57-6	mg/L	-	<0.01	<0.002	<0.002	<0.002	<0.002	x	x	x	x	x	x	x	<0.01	
2-Naphthylamine ¹	91-59-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
2-Picoline	109-06-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
3-Methylcholanthrene ¹	56-49-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
4-Aminobiphenyl ¹	92-67-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
4-Bromophenylphenyl ether	101-55-3	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
Acenaphthene ¹	83-32-9	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
Acenaphthylene ¹	208-96-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
Acetophenone ¹	98-86-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
Aniline ¹	62-53-3	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
Anthracene ¹	120-12-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
Benzidine ¹	92-87-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
Benzo (a) anthracene ¹	56-55-3	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	x	<0.0001	
Benzo (a) pyrene ¹	50-32-8	mg/L	0.0002	<0.0001	<0.00007	<0.00007	<0.00007	<0.00007	x	x	x	x	x	x	x	<0.0001	
Benzo (b) fluoranthene ¹	205-99-2	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	x	<0.0001	
Benzo (g,h,i) perylene ¹	191-24-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
Benzo (k) fluoranthene ¹	207-08-9	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	x	<0.0001	
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	
Benzyl alcohol ¹	100-51-6	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
bis (2-Chloroisopropyl) ether (bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	<0.005	x	x	x	x	x	x	x	x	x	x	x	<0.005	
Butylbenzylphthalate ¹	85-68-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
Carbazole	86-74-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
Chlorobenzilate ¹	510-15-6	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
Chrysene ¹	218-01-9	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	x	<0.0001	
Diallate ¹	2303-16-4	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	
Dibenz (a,j) acridine	224-42-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	x	<0.0001	
Dibenzofuran ¹	132-64-9	mg/L	-	<0.01													

APPENDIX B
Las Cruces Foothills Landfill MW-9

Las Cruces Foothills Landfill monitoring well MW-9

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-9											baseline	standard	
				12/29/10	5/18/11	8/23/11	11/28/11	12/29/11	12/20/12	6/26/13	12/28/16	6/28/17	12/19/17	12/20/18	12/29/10 to 12/29/11	average	deviation
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
Phenacetin ¹	62-44-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
Phenanthrene ¹	85-01-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
Pronamide ¹	23950-58-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
Pyrene ¹	129-00-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
Pyridine	110-86-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
RDX ¹	121-82-4	mg/L	-	0.000370	<0.0001	<0.0001	x	x	x	x	x	x	x	x	x	<0.0001	x
Safrole ¹	94-59-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
Sym-Trinitrobenzene ¹ (1,3,5-TNB)	99-35-4	mg/L	-	<0.0001	<0.0001	<0.0001	x	x	x	x	x	x	x	x	x	<0.0001	x
Semi Volatile Organic Compounds - Phenolics																	
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
2-Chlorophenol ¹	95-57-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	<0.005	x	x	x	x	x	x	x	x	x	x	x	<0.005	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
Pentachlorophenol ¹	87-86-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
Radium 226 and 228	NA	pCi/L	5	10.24	8.74	6.51	5.73	3.78	x	x	x	x	x	x	7.00	2.54	
Ra-226, total	NA	pCi/L	-	1.88	1.210	0.788	1.71	1.26	x	x	x	x	x	x	1.37	0.43	
Ra-228 ¹ , total	NA	pCi/L	-	8.36	7.53	5.72	4.02	2.52	x	x	x	x	x	x	5.63	2.42	
Chlorinated Pesticides																	
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x	<0.0001	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x	<0.0001	x
aldrin ¹	309-00-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.0001	x
alpha-BHC ¹	319-84-6	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	x	<0.0001	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x
beta-BHC ¹	319-85-7	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	x	<0.0001	x
Chlordane ¹	57-74-9	mg/L	0.002	<0.005	x	x	x	x	x	x	x	x	x	x	x	<0.005	x
delta-BHC ¹	319-86-8	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	x	<0.0001	x
Dieldrin ¹	60-57-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x	<0.001	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x	<0.001	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x	<0.001	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x	<0.001	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x	<0.001	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x	<0.001	x
gamma-BHC ¹	319-86-8	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	x	<0.0001	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x	<0.001	x
Heptachlor ¹	76-44-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x	<0.001	x
Isodrin ¹	465-73-6	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
Kepone ¹	143-50-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
Methoxychlor ¹	72-43-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
Toxaphene ¹	8001-35-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	x	<0.001	x
Polychlorinated Biphenyls (PCBs)																	
Arochlor-1016	12674-11-2	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	x	x	x	<0.00025	x
Arochlor-1221	11104-28-2	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	x	x	x	<0.00025	x
Arochlor-1232	11141-16-5	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	x	x	x	<0.00025	x
Arochlor-1242	53469-21-9	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	x	x	x	<0.00025	x
Arochlor-1248	12672-29-6	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	x	x	x	<0.00025	x
Arochlor-1254	11097-69-1	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	x	x	x	<0.00025	x
Arochlor-1260	11096-82-5	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	x	x	x	<0.00025	x
Other Pesticides and Herbicides																	
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	<0.000394	x	x	x	x	x	x	x	x	x	x	x	<0.000394	x
2,4,5-T ¹	93-76-5	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	x	<0.0001	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	x	<0.0001	x
Dimethoate ¹	60-51-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
Dinoseb ¹	88-85-7	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	x	<0.0001	x
Disulfoton ¹	298-04-4	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
Famphur ¹	52-58-7	mg/L	-	<0.005	x	x	x	x	x	x	x	x	x	x	x	<0.005	x
Methyl parathion ¹	298-00-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
Phorate ¹	298-02-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x
Silvex ¹ (2,4,5-TP)	93-72-1	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	x	<0.0001	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	x	<0.01	x

¹ baseline averages and standard deviations are based on 1999 and 2000 data only as per requirements in EPA, Subpart 803., Ground Water Sampling and Analysis, 1995.

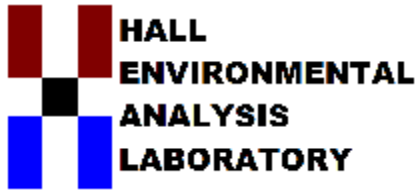
¹ hazardous

x parameter not analyzed

Appendix C.

**Copies of laboratory reports for the June and December 2018
sampling events**

**Laboratory Results
June 2018**



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

August 10, 2017

Luis Guerra

City of Las Cruces

PO Box 20000

Las Cruces, NM 88004

TEL: (575) 528-3635

FAX (575) 528-3513

RE: CLC Foothills Landfill Closure Monitoring Wells

OrderNo.: 1706F45

Dear Luis Guerra:

Hall Environmental Analysis Laboratory received 2 sample(s) on 6/29/2017 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued July 24, 2017.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written in a cursive style.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706F45

Date Reported: 8/10/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-9

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/28/2017 10:20:00 AM

Lab ID: 1706F45-001

Matrix: AQUEOUS

Received Date: 6/29/2017 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 9060 TOC							Analyst: MAB
Total Organic Carbon	2.6	1.0		mg/L	1	6/30/2017 2:05:37 PM	R43945
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	250	10		mg/L	20	7/19/2017 10:07:04 AM	R44336
Sulfate	130	10		mg/L	20	6/29/2017 7:39:25 PM	R43889
Nitrate+Nitrite as N	ND	1.0		mg/L	5	7/19/2017 10:31:53 AM	R44336
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	1800	5.0		µmhos/cm	1	7/3/2017 2:07:43 PM	R44003
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	401.9	20.00		mg/L CaCO3	1	7/3/2017 2:07:43 PM	R44003
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	7/3/2017 2:07:43 PM	R44003
Total Alkalinity (as CaCO3)	401.9	20.00		mg/L CaCO3	1	7/3/2017 2:07:43 PM	R44003
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	1110	20.0	*	mg/L	1	7/2/2017 2:34:00 PM	32575
SM 4500 NH3: AMMONIA							Analyst: CJS
Nitrogen, Ammonia	ND	1.0		mg/L	1	7/5/2017 3:00:00 PM	R44016
SM4500-H+B: PH							Analyst: JRR
pH	7.33		H	pH units	1	7/3/2017 2:07:43 PM	R44003
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.050	0.0020		mg/L	1	7/11/2017 10:34:34 AM	32720
Beryllium	ND	0.0020		mg/L	1	7/11/2017 10:34:34 AM	32720
Cadmium	ND	0.0020		mg/L	1	7/11/2017 10:34:34 AM	32720
Calcium	68	1.0		mg/L	1	7/11/2017 10:34:34 AM	32720
Chromium	0.0093	0.0060		mg/L	1	7/11/2017 10:34:34 AM	32720
Cobalt	ND	0.0060		mg/L	1	7/11/2017 10:34:34 AM	32720
Copper	ND	0.0060		mg/L	1	7/11/2017 10:34:34 AM	32720
Iron	0.31	0.020	*	mg/L	1	7/11/2017 10:34:34 AM	32720
Magnesium	14	1.0		mg/L	1	7/11/2017 10:34:34 AM	32720
Manganese	0.047	0.0020		mg/L	1	7/11/2017 10:34:34 AM	32720
Nickel	0.17	0.010	*	mg/L	1	7/11/2017 10:34:34 AM	32720
Potassium	33	1.0		mg/L	1	7/11/2017 10:34:34 AM	32720
Silver	ND	0.0050		mg/L	1	7/11/2017 10:34:34 AM	32720
Sodium	260	10		mg/L	10	7/11/2017 10:36:29 AM	32720
Vanadium	ND	0.050		mg/L	1	7/11/2017 10:34:34 AM	32720
Zinc	0.038	0.010		mg/L	1	7/11/2017 10:34:34 AM	32720
200.8 ICPMS METALS:TOTAL							Analyst: ELS

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706F45

Date Reported: 8/10/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-9

Project: CLC Foothills Landfill Closure Monitori

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Lab ID: 1706F45-001

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Received Date: 6/29/2017 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: ELS
Antimony	ND	0.0010		mg/L	1	7/18/2017 11:00:15 AM	32720
Arsenic	ND	0.0010		mg/L	1	7/18/2017 11:00:15 AM	32720
Lead	ND	0.00050		mg/L	1	7/18/2017 11:00:15 AM	32720
Selenium	0.0012	0.0010		mg/L	1	7/18/2017 11:00:15 AM	32720
Thallium	ND	0.00050		mg/L	1	7/18/2017 11:00:15 AM	32720
EPA METHOD 8011/504.1: EDB							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	7/1/2017 2:33:40 PM	32600
1,2-Dibromoethane	ND	0.0094		µg/L	1	7/1/2017 2:33:40 PM	32600
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Toluene	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Ethylbenzene	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Acetone	ND	10		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Bromodichloromethane	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Bromoform	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Bromomethane	ND	2.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
2-Butanone	ND	10		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Carbon disulfide	ND	10		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Carbon Tetrachloride	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Chlorobenzene	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Chloroethane	ND	2.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Chloroform	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Chloromethane	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
cis-1,2-DCE	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Dibromochloromethane	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Dibromomethane	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
1,1-Dichloroethane	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
1,1-Dichloroethene	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
1,2-Dichloropropane	ND	0.50		µg/L	1	6/29/2017 6:57:00 PM	LF43892
2-Hexanone	ND	10		µg/L	1	6/29/2017 6:57:00 PM	LF43892
4-Methyl-2-pentanone	ND	10		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Methylene Chloride	ND	2.5		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Styrene	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706F45

Date Reported: 8/10/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-9

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/28/2017 10:20:00 AM

Lab ID: 1706F45-001

Matrix: AQUEOUS

Received Date: 6/29/2017 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Tetrachloroethene (PCE)	ND	0.50		µg/L	1	6/29/2017 6:57:00 PM	LF43892
trans-1,2-DCE	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Trichlorofluoromethane	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
1,2,3-Trichloropropane	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Vinyl chloride	ND	0.40		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Xylenes, Total	ND	2.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Acrylonitrile	ND	10		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Bromochloromethane	ND	2.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Iodomethane	ND	10		µg/L	1	6/29/2017 6:57:00 PM	LF43892
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Vinyl acetate	ND	10		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Surr: 1,2-Dichloroethane-d4	109	70-130		%Rec	1	6/29/2017 6:57:00 PM	LF43892
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	6/29/2017 6:57:00 PM	LF43892
Surr: Dibromofluoromethane	111	70-130		%Rec	1	6/29/2017 6:57:00 PM	LF43892
Surr: Toluene-d8	102	70-130		%Rec	1	6/29/2017 6:57:00 PM	LF43892
TOTAL PHENOLICS BY SW-846 9067							Analyst: SCC
Phenolics	ND	2.5		µg/L	1	6/30/2017	32579

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706F45

Date Reported: 8/10/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-4

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/28/2017 12:11:00 PM

Lab ID: 1706F45-002

Matrix: AQUEOUS

Received Date: 6/29/2017 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 9060 TOC							Analyst: MAB
Total Organic Carbon	ND	1.0		mg/L	1	6/30/2017 3:10:06 PM	R43945
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	6.5	0.50		mg/L	1	7/19/2017 10:19:29 AM	R44336
Nitrogen, Nitrate (As N)	0.99	0.10		mg/L	1	6/29/2017 8:16:39 PM	R43889
Sulfate	33	0.50		mg/L	1	6/29/2017 8:16:39 PM	R43889
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	720	5.0		µmhos/cm	1	7/3/2017 2:25:49 PM	R44003
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	350.8	20.00		mg/L CaCO3	1	7/3/2017 2:25:49 PM	R44003
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	7/3/2017 2:25:49 PM	R44003
Total Alkalinity (as CaCO3)	350.8	20.00		mg/L CaCO3	1	7/3/2017 2:25:49 PM	R44003
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	466	20.0		mg/L	1	7/2/2017 2:34:00 PM	32575
SM 4500 NH3: AMMONIA							Analyst: CJS
Nitrogen, Ammonia	ND	1.0		mg/L	1	7/5/2017 3:00:00 PM	R44016
SM4500-H+B: PH							Analyst: JRR
pH	7.15		H	pH units	1	7/3/2017 2:25:49 PM	R44003
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.091	0.0020		mg/L	1	7/11/2017 10:38:37 AM	32720
Beryllium	ND	0.0020		mg/L	1	7/11/2017 10:38:37 AM	32720
Cadmium	ND	0.0020		mg/L	1	7/11/2017 10:38:37 AM	32720
Calcium	110	10		mg/L	10	7/11/2017 10:40:34 AM	32720
Chromium	ND	0.0060		mg/L	1	7/11/2017 10:38:37 AM	32720
Cobalt	ND	0.0060		mg/L	1	7/11/2017 10:38:37 AM	32720
Copper	0.017	0.0060		mg/L	1	7/11/2017 10:38:37 AM	32720
Iron	ND	0.020		mg/L	1	7/11/2017 10:38:37 AM	32720
Magnesium	15	1.0		mg/L	1	7/11/2017 10:38:37 AM	32720
Manganese	ND	0.0020		mg/L	1	7/11/2017 10:38:37 AM	32720
Nickel	ND	0.010		mg/L	1	7/11/2017 10:38:37 AM	32720
Potassium	2.7	1.0		mg/L	1	7/11/2017 10:38:37 AM	32720
Silver	ND	0.0050		mg/L	1	7/11/2017 10:38:37 AM	32720
Sodium	31	1.0		mg/L	1	7/11/2017 10:38:37 AM	32720
Vanadium	ND	0.050		mg/L	1	7/11/2017 10:38:37 AM	32720
Zinc	0.015	0.010		mg/L	1	7/11/2017 10:38:37 AM	32720
200.8 ICPMS METALS:TOTAL							Analyst: ELS

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706F45

Date Reported: 8/10/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-4

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/28/2017 12:11:00 PM

Lab ID: 1706F45-002

Matrix: AQUEOUS

Received Date: 6/29/2017 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: ELS
Antimony	ND	0.0010		mg/L	1	7/18/2017 11:05:24 AM	32720
Arsenic	ND	0.0010		mg/L	1	7/18/2017 11:05:24 AM	32720
Lead	0.0012	0.00050		mg/L	1	7/18/2017 11:05:24 AM	32720
Selenium	ND	0.0010		mg/L	1	7/18/2017 11:05:24 AM	32720
Thallium	ND	0.00050		mg/L	1	7/18/2017 11:05:24 AM	32720
EPA METHOD 8011/504.1: EDB							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.018		µg/L	1	7/1/2017 3:34:38 PM	32600
1,2-Dibromoethane	ND	0.0092		µg/L	1	7/1/2017 3:34:38 PM	32600
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Toluene	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Ethylbenzene	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Acetone	ND	10		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Bromodichloromethane	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Bromoform	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Bromomethane	ND	2.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
2-Butanone	ND	10		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Carbon disulfide	ND	10		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Carbon Tetrachloride	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Chlorobenzene	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Chloroethane	ND	2.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Chloroform	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Chloromethane	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
cis-1,2-DCE	2.3	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Dibromochloromethane	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Dibromomethane	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Dichlorodifluoromethane	3.9	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
1,1-Dichloroethane	4.0	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
1,1-Dichloroethene	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
1,2-Dichloropropane	ND	0.50		µg/L	1	6/29/2017 7:21:00 PM	LF43892
2-Hexanone	ND	10		µg/L	1	6/29/2017 7:21:00 PM	LF43892
4-Methyl-2-pentanone	ND	10		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Methylene Chloride	14	2.5		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Styrene	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706F45

Date Reported: 8/10/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-4

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/28/2017 12:11:00 PM

Lab ID: 1706F45-002

Matrix: AQUEOUS

Received Date: 6/29/2017 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Tetrachloroethene (PCE)	9.7	0.50		µg/L	1	6/29/2017 7:21:00 PM	LF43892
trans-1,2-DCE	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Trichloroethene (TCE)	3.1	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Trichlorofluoromethane	1.3	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
1,2,3-Trichloropropane	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Vinyl chloride	ND	0.40		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Xylenes, Total	ND	2.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Acrylonitrile	ND	10		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Bromochloromethane	ND	2.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Iodomethane	ND	10		µg/L	1	6/29/2017 7:21:00 PM	LF43892
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Vinyl acetate	ND	10		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Surr: 1,2-Dichloroethane-d4	113	70-130		%Rec	1	6/29/2017 7:21:00 PM	LF43892
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	6/29/2017 7:21:00 PM	LF43892
Surr: Dibromofluoromethane	108	70-130		%Rec	1	6/29/2017 7:21:00 PM	LF43892
Surr: Toluene-d8	104	70-130		%Rec	1	6/29/2017 7:21:00 PM	LF43892
TOTAL PHENOLICS BY SW-846 9067							Analyst: SCC
Phenolics	ND	2.5		µg/L	1	6/30/2017	32579

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-32720	SampType: MBLK	TestCode: EPA Method 200.7: Total Metals
Client ID: PBW	Batch ID: 32720	RunNo: 44105
Prep Date: 7/10/2017	Analysis Date: 7/11/2017	SeqNo: 1393882 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID LLCS-32720	SampType: LCSLL	TestCode: EPA Method 200.7: Total Metals
Client ID: BatchQC	Batch ID: 32720	RunNo: 44105
Prep Date: 7/10/2017	Analysis Date: 7/11/2017	SeqNo: 1393883 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0021	0.0020	0.002000	0	103	50	150			
Beryllium	0.0022	0.0020	0.002000	0	108	50	150			
Cadmium	ND	0.0020	0.002000	0	92.5	50	150			
Calcium	ND	1.0	0.5000	0	105	50	150			
Chromium	0.0073	0.0060	0.006000	0	122	50	150			
Cobalt	0.0063	0.0060	0.006000	0	105	50	150			
Copper	0.0064	0.0060	0.006000	0	106	50	150			
Iron	0.025	0.020	0.02000	0	124	50	150			
Magnesium	ND	1.0	0.5000	0	105	50	150			
Manganese	ND	0.0020	0.002000	0	96.0	50	150			
Nickel	ND	0.010	0.005000	0	110	50	150			
Potassium	ND	1.0	0.5000	0	101	50	150			
Silver	0.0052	0.0050	0.005000	0	105	50	150			
Sodium	ND	1.0	0.5000	0	103	50	150			
Vanadium	ND	0.050	0.01000	0	100	50	150			
Zinc	ND	0.010	0.005000	0	118	50	150			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID: LCS-32720	SampType: LCS	TestCode: EPA Method 200.7: Total Metals
Client ID: LCSW	Batch ID: 32720	RunNo: 44105
Prep Date: 7/10/2017	Analysis Date: 7/11/2017	SeqNo: 1393884 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.6	85	115			
Beryllium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.8	85	115			
Calcium	51	1.0	50.00	0	102	85	115			
Chromium	0.49	0.0060	0.5000	0	98.8	85	115			
Cobalt	0.47	0.0060	0.5000	0	94.6	85	115			
Copper	0.49	0.0060	0.5000	0	98.2	85	115			
Iron	0.50	0.020	0.5000	0	101	85	115			
Magnesium	51	1.0	50.00	0	101	85	115			
Manganese	0.48	0.0020	0.5000	0	96.4	85	115			
Nickel	0.47	0.010	0.5000	0	94.6	85	115			
Potassium	49	1.0	50.00	0	98.8	85	115			
Silver	0.098	0.0050	0.1000	0	97.5	85	115			
Sodium	50	1.0	50.00	0	99.9	85	115			
Vanadium	0.50	0.050	0.5000	0	99.6	85	115			
Zinc	0.48	0.010	0.5000	0	96.3	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	MB-32720	SampType:	MBLK	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID:	32720	RunNo:	44293					
Prep Date:	7/10/2017	Analysis Date:	7/18/2017	SeqNo:	1398746	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Thallium	ND	0.00050								

Sample ID	MSLCS-32720	SampType:	LCS	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	LCSW	Batch ID:	32720	RunNo:	44293					
Prep Date:	7/10/2017	Analysis Date:	7/18/2017	SeqNo:	1398748	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.027	0.0010	0.02500	0	108	85	115			
Arsenic	0.023	0.0010	0.02500	0	92.3	85	115			
Lead	0.012	0.00050	0.01250	0	97.7	85	115			
Selenium	0.023	0.0010	0.02500	0	90.0	85	115			
Thallium	0.012	0.00050	0.01250	0	97.5	85	115			

Sample ID	MSLLCS-32720	SampType:	LCSLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID:	32720	RunNo:	44293					
Prep Date:	7/10/2017	Analysis Date:	7/18/2017	SeqNo:	1398750	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010	0.001000	0	90.5	50	150			
Arsenic	ND	0.0010	0.001000	0	91.9	50	150			
Lead	ND	0.00050	0.0005001	0	96.1	50	150			
Selenium	0.0010	0.0010	0.001000	0	104	50	150			
Thallium	ND	0.00050	0.0005001	0	96.7	50	150			

Sample ID	1706F45-002FLLMS	SampType:	MSDLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	Foothills MW-4	Batch ID:	32720	RunNo:	44293					
Prep Date:	7/10/2017	Analysis Date:	7/18/2017	SeqNo:	1398814	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.027	0.0010	0.02500	0	108	70	130			
Arsenic	0.025	0.0010	0.02500	0.0005507	97.0	70	130			
Lead	0.014	0.00050	0.01250	0.001201	101	70	130			
Selenium	0.023	0.0010	0.02500	0	91.5	70	130			
Thallium	0.013	0.00050	0.01250	0	102	70	130			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	1706F45-002FLLMS		SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total				
Client ID:	Foothills MW-4		Batch ID:	32720		RunNo:	44293				
Prep Date:	7/10/2017		Analysis Date:	7/18/2017		SeqNo:	1398815		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Antimony	0.027	0.0010	0.02500	0	108	70	130				
Arsenic	0.025	0.0010	0.02500	0.0005507	97.4	70	130				
Lead	0.014	0.00050	0.01250	0.001201	101	70	130				
Selenium	0.023	0.0010	0.02500	0	92.5	70	130				
Thallium	0.013	0.00050	0.01250	0	102	70	130				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: mblk		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R43889		RunNo: 43889							
Prep Date:	Analysis Date: 6/29/2017		SeqNo: 1384595		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID LCS	SampType: lcs		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R43889		RunNo: 43889							
Prep Date:	Analysis Date: 6/29/2017		SeqNo: 1384596		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	2.3	0.10	2.500	0	93.0	90	110			
Sulfate	9.1	0.50	10.00	0	91.2	90	110			

Sample ID 1706F45-001EMS	SampType: ms		TestCode: EPA Method 300.0: Anions							
Client ID: Foothills MW-9	Batch ID: R43889		RunNo: 43889							
Prep Date:	Analysis Date: 6/29/2017		SeqNo: 1384600		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	2.7	0.10	2.500	0	108	85.6	113			

Sample ID 1706F45-001EMSD	SampType: msd		TestCode: EPA Method 300.0: Anions							
Client ID: Foothills MW-9	Batch ID: R43889		RunNo: 43889							
Prep Date:	Analysis Date: 6/29/2017		SeqNo: 1384601		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	2.7	0.10	2.500	0	108	85.6	113	0.711	20	

Sample ID MB	SampType: mblk		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R44336		RunNo: 44336							
Prep Date:	Analysis Date: 7/19/2017		SeqNo: 1400722		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: lcs		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R44336		RunNo: 44336							
Prep Date:	Analysis Date: 7/19/2017		SeqNo: 1400723		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	92.2	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	96.4	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-32600	SampType: MBLK		TestCode: EPA Method 8011/504.1: EDB							
Client ID: PBW	Batch ID: 32600		RunNo: 43960							
Prep Date: 7/1/2017	Analysis Date: 7/1/2017		SeqNo: 1385713		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	0.020								
1,2-Dibromoethane	ND	0.010								

Sample ID LCS-32600	SampType: LCS		TestCode: EPA Method 8011/504.1: EDB							
Client ID: LCSW	Batch ID: 32600		RunNo: 43960							
Prep Date: 7/1/2017	Analysis Date: 7/1/2017		SeqNo: 1385714		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.092	0.020	0.1000	0	91.7	70	130			
1,2-Dibromoethane	0.091	0.010	0.1000	0	90.8	70	130			

Sample ID 1706F45-001BMS	SampType: MS		TestCode: EPA Method 8011/504.1: EDB							
Client ID: Foothills MW-9	Batch ID: 32600		RunNo: 43960							
Prep Date: 7/1/2017	Analysis Date: 7/1/2017		SeqNo: 1385719		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.087	0.019	0.09409	0	92.7	70	130			
1,2-Dibromoethane	0.084	0.0094	0.09409	0	89.5	57.7	132			

Sample ID 1706F45-001BMSD	SampType: MSD		TestCode: EPA Method 8011/504.1: EDB							
Client ID: Foothills MW-9	Batch ID: 32600		RunNo: 43960							
Prep Date: 7/1/2017	Analysis Date: 7/1/2017		SeqNo: 1385720		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.084	0.019	0.09309	0	90.7	70	130	3.28	20	
1,2-Dibromoethane	0.082	0.0093	0.09309	0	88.2	57.7	132	2.51	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	RB	SampType:	MBLK		TestCode:	EPA Method 8260B: Volatiles, Table I				
Client ID:	PBW	Batch ID:	LF43892		RunNo:	43892				
Prep Date:		Analysis Date:	6/29/2017		SeqNo:	1384415	Units:	µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
Acetone	ND	10								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	2.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	0.50								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	2.5								
Styrene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
Tetrachloroethene (PCE)	ND	0.50								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	1.0								
Vinyl chloride	ND	0.40								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	RB	SampType: MBLK			TestCode: EPA Method 8260B: Volatiles, Table I					
Client ID:	PBW	Batch ID: LF43892			RunNo: 43892					
Prep Date:		Analysis Date: 6/29/2017			SeqNo: 1384415		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	ND	2.0								
Acrylonitrile	ND	10								
Bromochloromethane	ND	2.0								
Iodomethane	ND	10								
trans-1,4-Dichloro-2-butene	ND	10								
Vinyl acetate	ND	10								
Surr: 1,2-Dichloroethane-d4	11		10.00		106	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		109	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: Volatiles, Table I					
Client ID:	LCSW	Batch ID: LF43892			RunNo: 43892					
Prep Date:		Analysis Date: 6/29/2017			SeqNo: 1384421		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.4	70	130			
Toluene	20	1.0	20.00	0	98.6	70	130			
Ethylbenzene	20	1.0	20.00	0	98.6	70	130			
1,2-Dichloroethane (EDC)	20	1.0	20.00	0	98.6	70	130			
Acetone	43	10	40.00	0	108	70	130			
Bromodichloromethane	20	1.0	20.00	0	102	70	130			
Bromoform	19	1.0	20.00	0	96.7	70	130			
Bromomethane	18	2.0	20.00	0	87.8	70	130			
2-Butanone	47	10	40.00	0	117	70	130			
Carbon disulfide	37	10	40.00	0	91.6	70	130			
Carbon Tetrachloride	20	1.0	20.00	0	98.0	70	130			
Chlorobenzene	20	1.0	20.00	0	100	70	130			
Chloroethane	19	2.0	20.00	0	96.3	70	130			
Chloroform	20	1.0	20.00	0	102	70	130			
Chloromethane	17	1.0	20.00	0	82.9	70	130			
cis-1,2-DCE	20	1.0	20.00	0	99.5	70	130			
cis-1,3-Dichloropropene	18	1.0	20.00	0	91.1	70	130			
Dibromochloromethane	19	1.0	20.00	0	93.0	70	130			
Dibromomethane	20	1.0	20.00	0	99.6	70	130			
1,2-Dichlorobenzene	20	1.0	20.00	0	98.4	70	130			
1,4-Dichlorobenzene	20	1.0	20.00	0	98.9	70	130			
1,1-Dichloroethane	20	1.0	20.00	0	97.6	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	95.3	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles, Table I					
Client ID:	LCSW	Batch ID:	LF43892	RunNo:	43892					
Prep Date:		Analysis Date:	6/29/2017	SeqNo:	1384421	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dichloropropane	20	0.50	20.00	0	98.3	70	130			
2-Hexanone	38	10	40.00	0	94.0	70	130			
4-Methyl-2-pentanone	39	10	40.00	0	97.1	70	130			
Methylene Chloride	20	2.5	20.00	0	98.2	70	130			
Styrene	20	1.0	20.00	0	99.0	70	130			
1,1,1,2-Tetrachloroethane	19	1.0	20.00	0	96.6	70	130			
1,1,2,2-Tetrachloroethane	21	1.0	20.00	0	104	70	130			
Tetrachloroethene (PCE)	20	0.50	20.00	0	101	70	130			
trans-1,2-DCE	19	1.0	20.00	0	96.5	70	130			
trans-1,3-Dichloropropene	18	1.0	20.00	0	91.4	70	130			
1,1,1-Trichloroethane	20	1.0	20.00	0	98.9	70	130			
1,1,2-Trichloroethane	19	1.0	20.00	0	96.0	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	98.2	70	130			
Trichlorofluoromethane	20	1.0	20.00	0	100	70	130			
1,2,3-Trichloropropane	20	1.0	20.00	0	101	70	130			
Vinyl chloride	18	0.40	20.00	0	90.8	70	130			
Xylenes, Total	60	2.0	60.00	0	99.7	70	130			
Acrylonitrile	20	10	20.00	0	102	60	140			
Bromochloromethane	20	2.0	20.00	0	102	70	130			
Iodomethane	38	10	40.00	0	95.3	60	140			
trans-1,4-Dichloro-2-butene	26	10	20.00	0	131	60	140			
Surr: 1,2-Dichloroethane-d4	10		10.00		105	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	11		10.00		107	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: MBLK		TestCode: EPA Method 9060 TOC							
Client ID: PBW	Batch ID: R43945		RunNo: 43945							
Prep Date:	Analysis Date: 6/30/2017		SeqNo: 1385270		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	1.0								

Sample ID LCS ST9060-16016/	SampType: LCS		TestCode: EPA Method 9060 TOC							
Client ID: LCSW	Batch ID: R43945		RunNo: 43945							
Prep Date:	Analysis Date: 6/30/2017		SeqNo: 1385271		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	4.7	1.0	4.850	0	96.9	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	MB-32579	SampType:	MBLK	TestCode:	Total Phenolics by SW-846 9067					
Client ID:	PBW	Batch ID:	32579	RunNo:	43905					
Prep Date:	6/30/2017	Analysis Date:	6/30/2017	SeqNo:	1383952	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	ND	2.5								

Sample ID	LCS-32579	SampType:	LCS	TestCode:	Total Phenolics by SW-846 9067					
Client ID:	LCSW	Batch ID:	32579	RunNo:	43905					
Prep Date:	6/30/2017	Analysis Date:	6/30/2017	SeqNo:	1383953	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	20	2.5	20.00	0	98.6	62.4	146			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: MBLK		TestCode: SM 4500 NH3: Ammonia							
Client ID: PBW	Batch ID: R44016		RunNo: 44016							
Prep Date:	Analysis Date: 7/5/2017		SeqNo: 1387918		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	1.0								

Sample ID LCS	SampType: LCS		TestCode: SM 4500 NH3: Ammonia							
Client ID: LCSW	Batch ID: R44016		RunNo: 44016							
Prep Date:	Analysis Date: 7/5/2017		SeqNo: 1387919		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	9.9	1.0	10.00	0	99.4	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID mb-1	SampType: mblk		TestCode: SM2320B: Alkalinity							
Client ID: PBW	Batch ID: R44003		RunNo: 44003							
Prep Date:	Analysis Date: 7/3/2017		SeqNo: 1387252		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID ics-1	SampType: ics		TestCode: SM2320B: Alkalinity							
Client ID: LCSW	Batch ID: R44003		RunNo: 44003							
Prep Date:	Analysis Date: 7/3/2017		SeqNo: 1387253		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	79.00	20.00	80.00	0	98.8	90	110			

Sample ID mb-2	SampType: mblk		TestCode: SM2320B: Alkalinity							
Client ID: PBW	Batch ID: R44003		RunNo: 44003							
Prep Date:	Analysis Date: 7/3/2017		SeqNo: 1387276		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID ics-2	SampType: ics		TestCode: SM2320B: Alkalinity							
Client ID: LCSW	Batch ID: R44003		RunNo: 44003							
Prep Date:	Analysis Date: 7/3/2017		SeqNo: 1387277		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.16	20.00	80.00	0	97.7	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	MB-32575	SampType:	MBLK	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	PBW	Batch ID:	32575	RunNo:	43954					
Prep Date:	6/30/2017	Analysis Date:	7/2/2017	SeqNo:	1385414	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	LCS-32575	SampType:	LCS	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	LCSW	Batch ID:	32575	RunNo:	43954					
Prep Date:	6/30/2017	Analysis Date:	7/2/2017	SeqNo:	1385415	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	991	20.0	1000	0	99.1	80	120			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

Sample Log-In Check List

Client Name: City of Las Cruces

Work Order Number: 1706F45

RcptNo: 1

Received By: Andy Jansson

6/29/2017 9:40:00 AM

Andy Jansson

Completed By: Ashley Gallegos

6/29/2017 10:57:09 AM

Ashley Gallegos

Reviewed By:

[Signature]

6/29/17

Chain of Custody

- 1. Custody seals intact on sample bottles? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? FedEx

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels? Yes No
 (Note discrepancies on chain of custody)
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met? Yes No
 (If no, notify customer for authorization.)

of preserved bottles checked for pH: 6
 (2) or >12 unless noted
 Adjusted? No
 Checked by: *[Signature]*

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
acetone	67-64-1	8260B	-	0.01	0.0195	-	mg/L	y
acrylonitrile	107-13-1	8260B	-	0.1	0.195	-	mg/L	y
benzene	71-43-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
bromochloromethane	74-97-5	8260B	-	0.001	0.00195	-	mg/L	y
bromodichloromethane	75-27-4	8260B	-	0.005	0.00975	-	mg/L	y
bromoform	75-25-2	8260B	-	0.015	0.02925	-	mg/L	y
carbon disulfide	75-15-0	8260B	-	0.001	0.00195	-	mg/L	y
carbon tetrachloride	56-23-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
chlorobenzene	108-90-7	8260B	0.1	0.005	0.05	0.075	mg/L	y
chloroethane	75-00-3	8260B	-	0.01	0.0195	-	mg/L	y
chloroform	67-66-3	8260B	0.1	0.005	0.05	0.75	mg/L	y
dibromochloromethane	124-48-1	8260B	-	0.005	0.00975	-	mg/L	y
1,2-dibromo-3-chloropropane	96-12-8	504.1	0.0002	0.0001	0.0001	0.00015	mg/L	y
1,2-dichlorobenzene	95-50-1	8260B	0.06	0.01	0.03	0.045	mg/L	y
1,3-dichlorobenzene	541-73-1	8260B	-	0.01	0.0195	-	mg/L	n
1,4-dichlorobenzene	106-46-7	8260B	0.075	0.015	0.0375	0.5625	mg/L	y
trans-1,4-dichloro-2-butene	110-57-6	8260B	-	0.001	0.00195	-	mg/L	y
dichlorodifluoromethane	75-71-8	8260B	-	0.005	0.00975	-	mg/L	n
1,1-dichloroethane	75-34-3	8260B	0.025	0.005	0.0125	0.01875	mg/L	y
1,2-dichloroethane (EDC)	107-06-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y

**Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells
MW-1 through MW-7, Las Cruces, New Mexico (continued)**

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
1,1-dichloroethylene (1,1-DCE)	75-35-4	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
cis-1,2-dichloroethylene	156-59-2	8260B	0.07	0.005	0.035	0.0525	mg/L	y
trans-1,2- dichloroethylene	156-60-5	8260B	0.1	0.005	0.05	0.075	mg/L	y
1,2-dichloropropane	78-87-5	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y
cis-1,3-dichloropropene	10061-01-5	8260B	-	0.02	0.039	-	mg/L	y
trans-1,3- dichloropropene	10061-02-6	8260B	-	0.01	0.0195	-	mg/L	y
ethylbenzene	100-41-4	8260B	0.7	0.01	0.35	0.525	mg/L	y
ethylene dibromide (EDB)	106-93-4	504.1	0.00005	0.000025	0.000025	0.000038	mg/L	y
2-hexanone	591-78-6	8260B	-	0.04	0.078	-	mg/L	y
methyl bromide	74-83-9	8260B	-	0.01	0.0195	-	mg/L	y
methyl chloride	74-87-3	8260B	-	0.001	0.00195	-	mg/L	y
methyl ethyl ketone	78-93-3	8260B	-	0.01	0.0195	-	mg/L	y
methyl iodide	74-88-4	8260B	-	0.05	0.0975	-	mg/L	y
4-methyl-2-pentanone	108-10-1	8260B	-	0.001	0.00195	-	mg/L	y
methylene bromide	74-95-3	8260B	-	0.001	0.00195	-	mg/L	y
methylene chloride	74-87-3	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
styrene	100-42-5	8260B	0.1	0.001	0.05	0.075	mg/L	y
1,1,1,2- tetrachloroethane	630-20-6	8260B	-	0.001	0.00195	-	mg/L	y
1,1,2,2- tetrachloroethane	79-34-5	8260B	0.01	0.005	0.005	0.0075	mg/L	y
tetrachloroethylene (PCE)	127-18-4	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells
MW-1 through MW-7, Las Cruces, New Mexico (continued)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
toluene	108-88-3	8260B	0.75	0.001	0.375	0.5625	mg/L	y
1,1,1-trichloroethane	71-55-6	8260B	0.06	0.005	0.03	0.045	mg/L	y
1,1,2-trichloroethane	79-00-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
trichloroethylene (TCE)	79-01-6	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
trichlorofluoromethane	75-69-4	8260B	-	0.01	0.0195	-	mg/L	y
1,2,3-trichloropropane	96-18-4	8260B	-	0.05	0.0975	-	mg/L	y
vinyl acetate	108-05-4	8260B	-	0.0004	0.00078	-	mg/L	y
vinyl chloride	75-01-4	8260B	0.001	0.0004	0.0005	0.00075	mg/L	y
xylenes	1330-20-7	8260B	0.62	0.0015	0.31	0.465	mg/L	y
ammonia as (N)	N/A	SM 4500 NH3	-	0.5	-	-	mg/L	n
nitrate (as N)	N/A	300.0	10	1.0	5.0	7.5	mg/L	n
chloride	16887-00-6	300.0	250	5.0	187.5	250	mg/L	n
sulfate	14808-79-8	300.0	250	5.0	187.5	250	mg/L	n
total dissolved solids	N/A	SM 2540C	500	5.0	-	-	mg/L	n
carbonate alkalinity	3812-32-6	SM 2320B	-	10	-	-	mg/L	n
bicarbonate alkalinity	71-52-3	SM 2320B	-	10	-	-	mg/L	n
total phenolics	N/A	9067	0.005	0.0025	0.0025	0.00375	mg/L	n
total organic carbon	N/A	9060	-	1	-	-	mg/L	n
barium (total)	7440-39-3	6010B	1	0.01	0.5	0.75	mg/L	y
beryllium (total)	7440-41-7	6010B	0.004	0.002	0.002	0.003	mg/L	y
cadmium (total)	7440-43-9	6010B	0.005	0.002	0.0025	0.00375	mg/L	y
calcium (total)	7440-70-2	6010B	-	1	-	-	mg/L	n
chromium (total)	7440-47-3	6010B	0.05	0.006	0.025	0.0375	mg/L	y
cobalt (total)	7440-48-4	6010B	0.05	0.006	0.025	0.0375	mg/L	y
copper (total)	7440-50-8	6010B	1	0.006	0.5	0.75	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (concluded)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
iron (total)	7439-89-6	6010B	0.3	0.1	0.225	0.3	mg/L	n
lead (total)	7439-92-1	6010B	0.05	0.005	0.025	0.0375	mg/L	y
magnesium (total)	7439-95-4	6010B	-	1	-	-	mg/L	n
manganese (total)	7439-96-5	6010B	0.05	0.03	0.0375	0.05	mg/L	n
nickel (total)	7440-02-0	6010B	0.2	0.01	0.1	0.15	mg/L	y
potassium (total)	7440-09-7	6010B	-	1	-	-	mg/L	n
silver (total)	7440-22-4	6010B	0.05	0.005	0.025	0.0375	mg/L	y
sodium (total)	7440-23-5	6010B	-	1	-	-	mg/L	n
vanadium (total)	7440-62-2	6010B	-	0.05	-	-	mg/L	y
zinc (total)	7440-66-6	6010B	5	0.02	2.5	3.75	mg/L	y
antimony (total)	7440-36-0	6020	0.006	0.001	0.003	0.0045	mg/L	y
arsenic (total)	7440-38-2	6020	0.01	0.004	0.005	0.0075	mg/L	y
selenium (total)	7782-49-2	6020	0.05	0.001	0.025	0.0375	mg/L	y
thallium (total)	7440-28-0	6020	0.002	0.001	0.001	0.0015	mg/L	y
pH	N/A	SM4500	6.5-8.5	+/- 0.1	-	-	S.U.	n
specific conductance	N/A	120.1	-	+/- 25	-	-	µS/cm	n
temperature	N/A	field	-	+/- 0.5	-	-	°F	n
water level elevation	N/A	field	-	+/- 0.01	-	-	ft	n

GWPS - ground water protection standard

PQL - practical quantitation limit

AML - assessment monitoring level

CAL - corrective action level

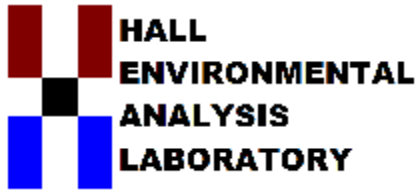
mg/L - milligrams per liter

µS/cm - microSiemens per centimeter

S.U. - standard pH units

°F - degrees Fahrenheit

ft - feet



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

July 28, 2017

Luis Guerra
City of Las Cruces
PO Box 20000
Las Cruces, NM 88004
TEL: (575) 528-3635
FAX (575) 528-3513

RE: CLC Foothills Landfill Closure Monitoring Wells

OrderNo.: 1706E83

Dear Luis Guerra:

Hall Environmental Analysis Laboratory received 5 sample(s) on 6/28/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-6

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 8:51:00 AM

Lab ID: 1706E83-001

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	7/1/2017 5:05:52 PM	32601
1,2-Dibromoethane	ND	0.0095		µg/L	1	7/1/2017 5:05:52 PM	32601
EPA METHOD 9060 TOC							Analyst: MAB
Total Organic Carbon	1.1	1.0		mg/L	1	7/1/2017 3:10:06 PM	R43956
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	12	0.50		mg/L	1	6/28/2017 2:53:28 PM	R43864
Nitrogen, Nitrate (As N)	3.0	0.10		mg/L	1	6/28/2017 2:53:28 PM	R43864
Sulfate	44	0.50		mg/L	1	6/28/2017 2:53:28 PM	R43864
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	400	5.0		µmhos/cm	1	7/3/2017 8:59:25 PM	R44003
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	124.8	20.00		mg/L CaCO3	1	7/3/2017 8:59:25 PM	R44003
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	7/3/2017 8:59:25 PM	R44003
Total Alkalinity (as CaCO3)	124.8	20.00		mg/L CaCO3	1	7/3/2017 8:59:25 PM	R44003
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	265	20.0		mg/L	1	6/29/2017 8:14:00 PM	32557
SM 4500 NH3: AMMONIA							Analyst: CJS
Nitrogen, Ammonia	ND	1.0		mg/L	1	7/13/2017 2:48:00 PM	R44217
SM4500-H+B: PH							Analyst: JRR
pH	8.01		H	pH units	1	7/3/2017 8:59:25 PM	R44003
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.058	0.0020		mg/L	1	7/11/2017 12:18:18 PM	32693
Beryllium	ND	0.0020		mg/L	1	7/11/2017 12:18:18 PM	32693
Cadmium	ND	0.0020		mg/L	1	7/11/2017 12:18:18 PM	32693
Calcium	41	1.0		mg/L	1	7/11/2017 12:18:18 PM	32693
Chromium	ND	0.0060		mg/L	1	7/11/2017 12:18:18 PM	32693
Cobalt	ND	0.0060		mg/L	1	7/11/2017 12:18:18 PM	32693
Copper	ND	0.0060		mg/L	1	7/11/2017 12:18:18 PM	32693
Iron	ND	0.020		mg/L	1	7/11/2017 12:18:18 PM	32693
Magnesium	4.6	1.0		mg/L	1	7/11/2017 12:18:18 PM	32693
Manganese	0.0040	0.0020		mg/L	1	7/11/2017 12:18:18 PM	32693
Nickel	ND	0.010		mg/L	1	7/11/2017 12:18:18 PM	32693
Potassium	2.2	1.0		mg/L	1	7/11/2017 12:18:18 PM	32693
Silver	ND	0.0050		mg/L	1	7/11/2017 12:18:18 PM	32693
Sodium	36	1.0		mg/L	1	7/11/2017 12:18:18 PM	32693

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-6

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 8:51:00 AM

Lab ID: 1706E83-001

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Vanadium	ND	0.050		mg/L	1	7/11/2017 12:18:18 PM	32693
Zinc	ND	0.010		mg/L	1	7/11/2017 12:18:18 PM	32693
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Antimony	ND	0.0010		mg/L	1	7/14/2017 12:19:46 PM	32693
Arsenic	0.0014	0.0010		mg/L	1	7/14/2017 12:19:46 PM	32693
Lead	ND	0.00050		mg/L	1	7/14/2017 12:19:46 PM	32693
Selenium	ND	0.0010		mg/L	1	7/14/2017 12:19:46 PM	32693
Thallium	ND	0.00050		mg/L	1	7/14/2017 12:19:46 PM	32693
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Toluene	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Ethylbenzene	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Acetone	ND	10		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Bromodichloromethane	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Bromoform	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Bromomethane	ND	2.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
2-Butanone	ND	10		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Carbon disulfide	ND	10		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Carbon Tetrachloride	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Chlorobenzene	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Chloroethane	ND	2.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Chloroform	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Chloromethane	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
cis-1,2-DCE	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Dibromochloromethane	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Dibromomethane	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Dichlorodifluoromethane	3.1	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
1,1-Dichloroethane	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
1,1-Dichloroethene	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
1,2-Dichloropropane	ND	0.50		µg/L	1	6/28/2017 5:47:00 PM	LF43852
2-Hexanone	ND	10		µg/L	1	6/28/2017 5:47:00 PM	LF43852
4-Methyl-2-pentanone	ND	10		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Methylene Chloride	ND	2.5		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Styrene	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-6

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 8:51:00 AM

Lab ID: 1706E83-001

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Tetrachloroethene (PCE)	6.5	0.50		µg/L	1	6/28/2017 5:47:00 PM	LF43852
trans-1,2-DCE	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Trichlorofluoromethane	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
1,2,3-Trichloropropane	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Vinyl chloride	ND	0.40		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Xylenes, Total	ND	2.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Acrylonitrile	ND	10		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Bromochloromethane	ND	2.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Iodomethane	ND	10		µg/L	1	6/28/2017 5:47:00 PM	LF43852
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Vinyl acetate	ND	10		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Surr: 1,2-Dichloroethane-d4	112	70-130		%Rec	1	6/28/2017 5:47:00 PM	LF43852
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	6/28/2017 5:47:00 PM	LF43852
Surr: Dibromofluoromethane	115	70-130		%Rec	1	6/28/2017 5:47:00 PM	LF43852
Surr: Toluene-d8	104	70-130		%Rec	1	6/28/2017 5:47:00 PM	LF43852
TOTAL PHENOLICS BY SW-846 9067							Analyst: SCC
Phenolics	ND	2.5		µg/L	1	6/30/2017	32579

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-7

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 9:48:00 AM

Lab ID: 1706E83-002

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	7/1/2017 5:21:02 PM	32601
1,2-Dibromoethane	ND	0.0094		µg/L	1	7/1/2017 5:21:02 PM	32601
EPA METHOD 9060 TOC							Analyst: MAB
Total Organic Carbon	ND	1.0		mg/L	1	7/1/2017 2:53:15 PM	R43956
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	20	10		mg/L	20	6/28/2017 3:55:30 PM	R43864
Nitrogen, Nitrate (As N)	0.97	0.10		mg/L	1	6/28/2017 3:43:05 PM	R43864
Sulfate	76	10		mg/L	20	6/28/2017 3:55:30 PM	R43864
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	490	5.0		µmhos/cm	1	7/3/2017 9:08:12 PM	R44003
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	128.3	20.00		mg/L CaCO3	1	7/3/2017 9:08:12 PM	R44003
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	7/3/2017 9:08:12 PM	R44003
Total Alkalinity (as CaCO3)	128.3	20.00		mg/L CaCO3	1	7/3/2017 9:08:12 PM	R44003
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	336	20.0		mg/L	1	6/29/2017 8:14:00 PM	32557
SM 4500 NH3: AMMONIA							Analyst: CJS
Nitrogen, Ammonia	ND	1.0		mg/L	1	7/13/2017 2:48:00 PM	R44217
SM4500-H+B: PH							Analyst: JRR
pH	7.96		H	pH units	1	7/3/2017 9:08:12 PM	R44003
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.050	0.0020		mg/L	1	7/11/2017 12:22:11 PM	32693
Beryllium	ND	0.0020		mg/L	1	7/11/2017 12:22:11 PM	32693
Cadmium	ND	0.0020		mg/L	1	7/11/2017 12:22:11 PM	32693
Calcium	64	1.0		mg/L	1	7/11/2017 12:22:11 PM	32693
Chromium	ND	0.0060		mg/L	1	7/11/2017 12:22:11 PM	32693
Cobalt	ND	0.0060		mg/L	1	7/11/2017 12:22:11 PM	32693
Copper	ND	0.0060		mg/L	1	7/11/2017 12:22:11 PM	32693
Iron	0.031	0.020		mg/L	1	7/11/2017 12:22:11 PM	32693
Magnesium	7.5	1.0		mg/L	1	7/11/2017 12:22:11 PM	32693
Manganese	0.0038	0.0020		mg/L	1	7/11/2017 12:22:11 PM	32693
Nickel	ND	0.010		mg/L	1	7/11/2017 12:22:11 PM	32693
Potassium	2.2	1.0		mg/L	1	7/11/2017 12:22:11 PM	32693
Silver	ND	0.0050		mg/L	1	7/11/2017 12:22:11 PM	32693
Sodium	29	1.0		mg/L	1	7/11/2017 12:22:11 PM	32693

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-7

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 9:48:00 AM

Lab ID: 1706E83-002

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Vanadium	ND	0.050		mg/L	1	7/11/2017 12:22:11 PM	32693
Zinc	0.012	0.010		mg/L	1	7/11/2017 12:22:11 PM	32693
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Antimony	ND	0.0010		mg/L	1	7/14/2017 12:24:54 PM	32693
Arsenic	ND	0.0010		mg/L	1	7/14/2017 12:24:54 PM	32693
Lead	ND	0.00050		mg/L	1	7/14/2017 12:24:54 PM	32693
Selenium	0.0013	0.0010		mg/L	1	7/14/2017 12:24:54 PM	32693
Thallium	ND	0.00050		mg/L	1	7/14/2017 12:24:54 PM	32693
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Toluene	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Ethylbenzene	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Acetone	ND	10		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Bromodichloromethane	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Bromoform	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Bromomethane	ND	2.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
2-Butanone	ND	10		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Carbon disulfide	ND	10		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Carbon Tetrachloride	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Chlorobenzene	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Chloroethane	ND	2.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Chloroform	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Chloromethane	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
cis-1,2-DCE	2.3	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Dibromochloromethane	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Dibromomethane	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Dichlorodifluoromethane	9.7	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
1,1-Dichloroethane	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
1,1-Dichloroethene	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
1,2-Dichloropropane	ND	0.50		µg/L	1	6/28/2017 7:00:00 PM	LF43852
2-Hexanone	ND	10		µg/L	1	6/28/2017 7:00:00 PM	LF43852
4-Methyl-2-pentanone	ND	10		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Methylene Chloride	ND	2.5		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Styrene	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E Value above quantitation range
H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL	Practical Quantitative Limit	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-7

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 9:48:00 AM

Lab ID: 1706E83-002

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Tetrachloroethene (PCE)	18	0.50		µg/L	1	6/28/2017 7:00:00 PM	LF43852
trans-1,2-DCE	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Trichloroethene (TCE)	3.7	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Trichlorofluoromethane	4.2	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
1,2,3-Trichloropropane	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Vinyl chloride	ND	0.40		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Xylenes, Total	ND	2.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Acrylonitrile	ND	10		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Bromochloromethane	ND	2.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Iodomethane	ND	10		µg/L	1	6/28/2017 7:00:00 PM	LF43852
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Vinyl acetate	ND	10		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Surr: 1,2-Dichloroethane-d4	117	70-130		%Rec	1	6/28/2017 7:00:00 PM	LF43852
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	6/28/2017 7:00:00 PM	LF43852
Surr: Dibromofluoromethane	114	70-130		%Rec	1	6/28/2017 7:00:00 PM	LF43852
Surr: Toluene-d8	106	70-130		%Rec	1	6/28/2017 7:00:00 PM	LF43852
TOTAL PHENOLICS BY SW-846 9067							Analyst: SCC
Phenolics	ND	2.5		µg/L	1	6/30/2017	32579

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E Value above quantitation range
H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL	Practical Quantitative Limit	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-2

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 10:30:00 AM

Lab ID: 1706E83-003

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	7/1/2017 5:36:09 PM	32601
1,2-Dibromoethane	ND	0.0094		µg/L	1	7/1/2017 5:36:09 PM	32601
EPA METHOD 9060 TOC							Analyst: MAB
Total Organic Carbon	ND	1.0		mg/L	1	7/1/2017 3:26:57 PM	R43956
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	10	0.50		mg/L	1	6/28/2017 4:32:43 PM	R43864
Nitrogen, Nitrate (As N)	2.5	0.10		mg/L	1	6/28/2017 4:32:43 PM	R43864
Sulfate	32	0.50		mg/L	1	6/28/2017 4:32:43 PM	R43864
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	380	5.0		µmhos/cm	1	7/3/2017 9:17:09 PM	R44003
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	130.9	20.00		mg/L CaCO3	1	7/3/2017 9:17:09 PM	R44003
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	7/3/2017 9:17:09 PM	R44003
Total Alkalinity (as CaCO3)	130.9	20.00		mg/L CaCO3	1	7/3/2017 9:17:09 PM	R44003
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	243	20.0		mg/L	1	6/29/2017 8:14:00 PM	32557
SM 4500 NH3: AMMONIA							Analyst: CJS
Nitrogen, Ammonia	ND	1.0		mg/L	1	7/13/2017 2:48:00 PM	R44217
SM4500-H+B: PH							Analyst: JRR
pH	7.96		H	pH units	1	7/3/2017 9:17:09 PM	R44003
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.036	0.0020		mg/L	1	7/11/2017 12:26:05 PM	32693
Beryllium	ND	0.0020		mg/L	1	7/11/2017 12:26:05 PM	32693
Cadmium	ND	0.0020		mg/L	1	7/11/2017 12:26:05 PM	32693
Calcium	42	1.0		mg/L	1	7/11/2017 12:26:05 PM	32693
Chromium	ND	0.0060		mg/L	1	7/11/2017 12:26:05 PM	32693
Cobalt	ND	0.0060		mg/L	1	7/11/2017 12:26:05 PM	32693
Copper	ND	0.0060		mg/L	1	7/11/2017 12:26:05 PM	32693
Iron	0.023	0.020		mg/L	1	7/11/2017 12:26:05 PM	32693
Magnesium	5.9	1.0		mg/L	1	7/11/2017 12:26:05 PM	32693
Manganese	0.0032	0.0020		mg/L	1	7/11/2017 12:26:05 PM	32693
Nickel	ND	0.010		mg/L	1	7/11/2017 12:26:05 PM	32693
Potassium	1.8	1.0		mg/L	1	7/11/2017 12:26:05 PM	32693
Silver	ND	0.0050		mg/L	1	7/11/2017 12:26:05 PM	32693
Sodium	30	1.0		mg/L	1	7/11/2017 12:26:05 PM	32693

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-2

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 10:30:00 AM

Lab ID: 1706E83-003

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Vanadium	ND	0.050		mg/L	1	7/11/2017 12:26:05 PM	32693
Zinc	ND	0.010		mg/L	1	7/11/2017 12:26:05 PM	32693
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Antimony	ND	0.0010		mg/L	1	7/14/2017 12:30:03 PM	32693
Arsenic	0.0014	0.0010		mg/L	1	7/14/2017 12:30:03 PM	32693
Lead	ND	0.00050		mg/L	1	7/14/2017 12:30:03 PM	32693
Selenium	ND	0.0010		mg/L	1	7/14/2017 12:30:03 PM	32693
Thallium	ND	0.00050		mg/L	1	7/14/2017 12:30:03 PM	32693
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Toluene	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Ethylbenzene	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Acetone	ND	10		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Bromodichloromethane	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Bromoform	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Bromomethane	ND	2.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
2-Butanone	ND	10		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Carbon disulfide	ND	10		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Carbon Tetrachloride	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Chlorobenzene	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Chloroethane	ND	2.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Chloroform	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Chloromethane	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
cis-1,2-DCE	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Dibromochloromethane	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Dibromomethane	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
1,1-Dichloroethane	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
1,1-Dichloroethene	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
1,2-Dichloropropane	ND	0.50		µg/L	1	6/28/2017 7:24:00 PM	LF43852
2-Hexanone	ND	10		µg/L	1	6/28/2017 7:24:00 PM	LF43852
4-Methyl-2-pentanone	ND	10		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Methylene Chloride	ND	2.5		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Styrene	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-2

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 10:30:00 AM

Lab ID: 1706E83-003

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Tetrachloroethene (PCE)	1.8	0.50		µg/L	1	6/28/2017 7:24:00 PM	LF43852
trans-1,2-DCE	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Trichlorofluoromethane	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
1,2,3-Trichloropropane	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Vinyl chloride	ND	0.40		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Xylenes, Total	ND	2.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Acrylonitrile	ND	10		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Bromochloromethane	ND	2.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Iodomethane	ND	10		µg/L	1	6/28/2017 7:24:00 PM	LF43852
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Vinyl acetate	ND	10		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Surr: 1,2-Dichloroethane-d4	112	70-130		%Rec	1	6/28/2017 7:24:00 PM	LF43852
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	6/28/2017 7:24:00 PM	LF43852
Surr: Dibromofluoromethane	115	70-130		%Rec	1	6/28/2017 7:24:00 PM	LF43852
Surr: Toluene-d8	105	70-130		%Rec	1	6/28/2017 7:24:00 PM	LF43852
TOTAL PHENOLICS BY SW-846 9067							Analyst: SCC
Phenolics	ND	2.5		µg/L	1	6/30/2017	32579

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-1

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 11:28:00 AM

Lab ID: 1706E83-004

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	7/1/2017 6:06:43 PM	32601
1,2-Dibromoethane	ND	0.0095		µg/L	1	7/1/2017 6:06:43 PM	32601
EPA METHOD 9060 TOC							Analyst: MAB
Total Organic Carbon	ND	1.0		mg/L	1	7/1/2017 4:27:43 PM	R43956
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	66	10		mg/L	20	6/28/2017 5:09:56 PM	R43864
Nitrogen, Nitrate (As N)	0.96	0.10		mg/L	1	6/28/2017 4:57:32 PM	R43864
Sulfate	30	0.50		mg/L	1	6/28/2017 4:57:32 PM	R43864
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	480	5.0		µmhos/cm	1	7/3/2017 9:30:42 PM	R44003
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	72.28	20.00		mg/L CaCO3	1	7/3/2017 9:30:42 PM	R44003
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	7/3/2017 9:30:42 PM	R44003
Total Alkalinity (as CaCO3)	72.28	20.00		mg/L CaCO3	1	7/3/2017 9:30:42 PM	R44003
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	268	20.0		mg/L	1	6/29/2017 8:14:00 PM	32557
SM 4500 NH3: AMMONIA							Analyst: CJS
Nitrogen, Ammonia	ND	1.0		mg/L	1	7/13/2017 2:48:00 PM	R44217
SM4500-H+B: PH							Analyst: JRR
pH	8.16		H	pH units	1	7/3/2017 9:30:42 PM	R44003
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.13	0.0020		mg/L	1	7/11/2017 12:36:20 PM	32693
Beryllium	ND	0.0020		mg/L	1	7/11/2017 12:36:20 PM	32693
Cadmium	ND	0.0020		mg/L	1	7/11/2017 12:36:20 PM	32693
Calcium	36	1.0		mg/L	1	7/11/2017 12:36:20 PM	32693
Chromium	ND	0.0060		mg/L	1	7/11/2017 12:36:20 PM	32693
Cobalt	ND	0.0060		mg/L	1	7/11/2017 12:36:20 PM	32693
Copper	ND	0.0060		mg/L	1	7/11/2017 12:36:20 PM	32693
Iron	0.14	0.020		mg/L	1	7/11/2017 12:36:20 PM	32693
Magnesium	8.2	1.0		mg/L	1	7/11/2017 12:36:20 PM	32693
Manganese	0.0086	0.0020		mg/L	1	7/11/2017 12:36:20 PM	32693
Nickel	ND	0.010		mg/L	1	7/11/2017 12:36:20 PM	32693
Potassium	2.9	1.0		mg/L	1	7/11/2017 12:36:20 PM	32693
Silver	ND	0.0050		mg/L	1	7/11/2017 12:36:20 PM	32693
Sodium	42	1.0		mg/L	1	7/11/2017 12:36:20 PM	32693

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-1

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 11:28:00 AM

Lab ID: 1706E83-004

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Vanadium	ND	0.050		mg/L	1	7/11/2017 12:36:20 PM	32693
Zinc	ND	0.010		mg/L	1	7/11/2017 12:36:20 PM	32693
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Antimony	ND	0.0010		mg/L	1	7/14/2017 12:50:40 PM	32693
Arsenic	ND	0.0010		mg/L	1	7/14/2017 12:50:40 PM	32693
Lead	ND	0.00050		mg/L	1	7/14/2017 12:50:40 PM	32693
Selenium	0.0020	0.0010		mg/L	1	7/14/2017 12:50:40 PM	32693
Thallium	ND	0.00050		mg/L	1	7/14/2017 12:50:40 PM	32693
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Toluene	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Ethylbenzene	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Acetone	ND	10		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Bromodichloromethane	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Bromoform	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Bromomethane	ND	2.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
2-Butanone	ND	10		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Carbon disulfide	ND	10		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Carbon Tetrachloride	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Chlorobenzene	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Chloroethane	ND	2.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Chloroform	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Chloromethane	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
cis-1,2-DCE	5.6	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Dibromochloromethane	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Dibromomethane	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Dichlorodifluoromethane	3.7	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
1,1-Dichloroethane	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
1,1-Dichloroethene	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
1,2-Dichloropropane	ND	0.50		µg/L	1	6/28/2017 7:49:00 PM	LF43852
2-Hexanone	ND	10		µg/L	1	6/28/2017 7:49:00 PM	LF43852
4-Methyl-2-pentanone	ND	10		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Methylene Chloride	ND	2.5		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Styrene	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E Value above quantitation range
H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL	Practical Quantitative Limit	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-1

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 11:28:00 AM

Lab ID: 1706E83-004

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Tetrachloroethene (PCE)	15	0.50		µg/L	1	6/28/2017 7:49:00 PM	LF43852
trans-1,2-DCE	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Trichloroethene (TCE)	2.6	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Trichlorofluoromethane	1.1	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
1,2,3-Trichloropropane	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Vinyl chloride	ND	0.40		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Xylenes, Total	ND	2.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Acrylonitrile	ND	10		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Bromochloromethane	ND	2.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Iodomethane	ND	10		µg/L	1	6/28/2017 7:49:00 PM	LF43852
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Vinyl acetate	ND	10		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Surr: 1,2-Dichloroethane-d4	110	70-130		%Rec	1	6/28/2017 7:49:00 PM	LF43852
Surr: 4-Bromofluorobenzene	112	70-130		%Rec	1	6/28/2017 7:49:00 PM	LF43852
Surr: Dibromofluoromethane	112	70-130		%Rec	1	6/28/2017 7:49:00 PM	LF43852
Surr: Toluene-d8	107	70-130		%Rec	1	6/28/2017 7:49:00 PM	LF43852
TOTAL PHENOLICS BY SW-846 9067							Analyst: SCC
Phenolics	ND	2.5		µg/L	1	6/30/2017	32579

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-5

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 1:05:00 PM

Lab ID: 1706E83-005

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	7/1/2017 6:21:56 PM	32601
1,2-Dibromoethane	ND	0.0095		µg/L	1	7/1/2017 6:21:56 PM	32601
EPA METHOD 9060 TOC							Analyst: MAB
Total Organic Carbon	ND	1.0		mg/L	1	7/1/2017 2:00:58 PM	R43956
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	26	10		mg/L	20	6/28/2017 5:34:45 PM	R43864
Nitrogen, Nitrate (As N)	5.1	0.10		mg/L	1	6/28/2017 5:22:20 PM	R43864
Sulfate	44	10		mg/L	20	6/28/2017 5:34:45 PM	R43864
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	450	5.0		µmhos/cm	1	7/3/2017 9:37:57 PM	R44003
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	107.7	20.00		mg/L CaCO3	1	7/3/2017 9:37:57 PM	R44003
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	7/3/2017 9:37:57 PM	R44003
Total Alkalinity (as CaCO3)	107.7	20.00		mg/L CaCO3	1	7/3/2017 9:37:57 PM	R44003
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	289	20.0		mg/L	1	6/29/2017 8:14:00 PM	32557
SM 4500 NH3: AMMONIA							Analyst: CJS
Nitrogen, Ammonia	ND	1.0		mg/L	1	7/13/2017 2:48:00 PM	R44217
SM4500-H+B: PH							Analyst: JRR
pH	8.06		H	pH units	1	7/3/2017 9:37:57 PM	R44003
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.062	0.0020		mg/L	1	7/11/2017 12:40:13 PM	32693
Beryllium	ND	0.0020		mg/L	1	7/11/2017 12:40:13 PM	32693
Cadmium	ND	0.0020		mg/L	1	7/11/2017 12:40:13 PM	32693
Calcium	39	1.0		mg/L	1	7/11/2017 12:40:13 PM	32693
Chromium	ND	0.0060		mg/L	1	7/11/2017 12:40:13 PM	32693
Cobalt	ND	0.0060		mg/L	1	7/11/2017 12:40:13 PM	32693
Copper	ND	0.0060		mg/L	1	7/11/2017 12:40:13 PM	32693
Iron	ND	0.020		mg/L	1	7/11/2017 12:40:13 PM	32693
Magnesium	4.9	1.0		mg/L	1	7/11/2017 12:40:13 PM	32693
Manganese	ND	0.0020		mg/L	1	7/11/2017 12:40:13 PM	32693
Nickel	ND	0.010		mg/L	1	7/11/2017 12:40:13 PM	32693
Potassium	2.4	1.0		mg/L	1	7/11/2017 12:40:13 PM	32693
Silver	ND	0.0050		mg/L	1	7/11/2017 12:40:13 PM	32693
Sodium	47	1.0		mg/L	1	7/11/2017 12:40:13 PM	32693

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-5

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 1:05:00 PM

Lab ID: 1706E83-005

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Vanadium	ND	0.050		mg/L	1	7/11/2017 12:40:13 PM	32693
Zinc	ND	0.010		mg/L	1	7/11/2017 12:40:13 PM	32693
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Antimony	ND	0.0010		mg/L	1	7/14/2017 1:00:59 PM	32693
Arsenic	0.0021	0.0010		mg/L	1	7/14/2017 1:00:59 PM	32693
Lead	ND	0.00050		mg/L	1	7/14/2017 1:00:59 PM	32693
Selenium	0.0013	0.0010		mg/L	1	7/14/2017 1:00:59 PM	32693
Thallium	ND	0.00050		mg/L	1	7/14/2017 1:00:59 PM	32693
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Toluene	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Ethylbenzene	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Acetone	ND	10		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Bromodichloromethane	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Bromoform	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Bromomethane	ND	2.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
2-Butanone	ND	10		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Carbon disulfide	ND	10		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Carbon Tetrachloride	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Chlorobenzene	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Chloroethane	ND	2.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Chloroform	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Chloromethane	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
cis-1,2-DCE	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Dibromochloromethane	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Dibromomethane	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Dichlorodifluoromethane	2.2	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
1,1-Dichloroethane	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
1,1-Dichloroethene	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
1,2-Dichloropropane	ND	0.50		µg/L	1	6/28/2017 8:13:00 PM	LF43852
2-Hexanone	ND	10		µg/L	1	6/28/2017 8:13:00 PM	LF43852
4-Methyl-2-pentanone	ND	10		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Methylene Chloride	ND	2.5		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Styrene	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-5

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 1:05:00 PM

Lab ID: 1706E83-005

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Tetrachloroethene (PCE)	6.1	0.50		µg/L	1	6/28/2017 8:13:00 PM	LF43852
trans-1,2-DCE	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Trichlorofluoromethane	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
1,2,3-Trichloropropane	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Vinyl chloride	ND	0.40		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Xylenes, Total	ND	2.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Acrylonitrile	ND	10		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Bromochloromethane	ND	2.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Iodomethane	ND	10		µg/L	1	6/28/2017 8:13:00 PM	LF43852
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Vinyl acetate	ND	10		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Surr: 1,2-Dichloroethane-d4	108	70-130		%Rec	1	6/28/2017 8:13:00 PM	LF43852
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	6/28/2017 8:13:00 PM	LF43852
Surr: Dibromofluoromethane	107	70-130		%Rec	1	6/28/2017 8:13:00 PM	LF43852
Surr: Toluene-d8	107	70-130		%Rec	1	6/28/2017 8:13:00 PM	LF43852
TOTAL PHENOLICS BY SW-846 9067							Analyst: SCC
Phenolics	ND	2.5		µg/L	1	6/30/2017	32579

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-32693	SampType: MBLK		TestCode: EPA Method 200.7: Total Metals							
Client ID: PBW	Batch ID: 32693		RunNo: 44105							
Prep Date: 7/9/2017	Analysis Date: 7/11/2017		SeqNo: 1391662		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID LLCS-32693	SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals							
Client ID: BatchQC	Batch ID: 32693		RunNo: 44105							
Prep Date: 7/9/2017	Analysis Date: 7/11/2017		SeqNo: 1391668		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	92.0	50	150			
Beryllium	0.0021	0.0020	0.002000	0	106	50	150			
Cadmium	ND	0.0020	0.002000	0	88.0	50	150			
Calcium	ND	1.0	0.5000	0	105	50	150			
Chromium	0.0066	0.0060	0.006000	0	111	50	150			
Cobalt	0.0064	0.0060	0.006000	0	106	50	150			
Copper	0.0062	0.0060	0.006000	0	103	50	150			
Iron	0.022	0.020	0.02000	0	110	50	150			
Magnesium	ND	1.0	0.5000	0	105	50	150			
Manganese	0.0023	0.0020	0.002000	0	113	50	150			
Nickel	ND	0.010	0.005000	0	109	50	150			
Potassium	ND	1.0	0.5000	0	96.5	50	150			
Silver	0.0050	0.0050	0.005000	0	100	50	150			
Sodium	ND	1.0	0.5000	0	104	50	150			
Vanadium	ND	0.050	0.01000	0	100	50	150			
Zinc	ND	0.010	0.005000	0	130	50	150			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	LCS-32693		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals				
Client ID:	LCSW		Batch ID:	32693		RunNo:	44105				
Prep Date:	7/9/2017		Analysis Date:	7/11/2017		SeqNo:	1391669		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Barium	0.50	0.0020	0.5000	0	99.7	85	115				
Beryllium	0.51	0.0020	0.5000	0	102	85	115				
Cadmium	0.49	0.0020	0.5000	0	98.8	85	115				
Calcium	51	1.0	50.00	0	102	85	115				
Chromium	0.50	0.0060	0.5000	0	99.9	85	115				
Cobalt	0.48	0.0060	0.5000	0	95.8	85	115				
Copper	0.50	0.0060	0.5000	0	99.8	85	115				
Iron	0.50	0.020	0.5000	0	99.4	85	115				
Magnesium	51	1.0	50.00	0	103	85	115				
Manganese	0.48	0.0020	0.5000	0	96.6	85	115				
Nickel	0.48	0.010	0.5000	0	96.5	85	115				
Potassium	50	1.0	50.00	0	100	85	115				
Silver	0.10	0.0050	0.1000	0	102	85	115				
Sodium	51	1.0	50.00	0	101	85	115				
Vanadium	0.50	0.050	0.5000	0	101	85	115				
Zinc	0.48	0.010	0.5000	0	95.8	85	115				

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-32693	SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total							
Client ID: PBW	Batch ID: 32693		RunNo: 44108							
Prep Date: 7/9/2017	Analysis Date: 7/10/2017		SeqNo: 1391753		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Thallium	ND	0.00050								

Sample ID MSLCS-32693	SampType: LCS		TestCode: 200.8 ICPMS Metals:Total							
Client ID: LCSW	Batch ID: 32693		RunNo: 44108							
Prep Date: 7/9/2017	Analysis Date: 7/10/2017		SeqNo: 1391754		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	99.2	85	115			
Arsenic	0.023	0.0010	0.02500	0	92.1	85	115			
Lead	0.012	0.00050	0.01250	0	95.2	85	115			
Selenium	0.022	0.0010	0.02500	0	89.8	85	115			
Thallium	0.012	0.00050	0.01250	0	95.7	85	115			

Sample ID MSLLLCS-32693	SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total							
Client ID: BatchQC	Batch ID: 32693		RunNo: 44108							
Prep Date: 7/9/2017	Analysis Date: 7/10/2017		SeqNo: 1391755		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.0010	0.0010	0.001000	0	102	50	150			
Arsenic	ND	0.0010	0.001000	0	99.5	50	150			
Lead	ND	0.00050	0.0005001	0	92.3	50	150			
Selenium	ND	0.0010	0.001000	0	93.6	50	150			
Thallium	ND	0.00050	0.0005001	0	94.4	50	150			

Sample ID 1706E83-003ELLMS	SampType: MSLL		TestCode: 200.8 ICPMS Metals:Total							
Client ID: Foothills MW-2	Batch ID: 32693		RunNo: 44225							
Prep Date: 7/9/2017	Analysis Date: 7/14/2017		SeqNo: 1396278		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.027	0.0010	0.02500	0	108	70	130			
Arsenic	0.026	0.0010	0.02500	0.001401	98.7	70	130			
Lead	0.013	0.00050	0.01250	0.0002548	105	70	130			
Selenium	0.023	0.0010	0.02500	0	92.7	70	130			
Thallium	0.013	0.00050	0.01250	0	104	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBW	Batch ID: R43864	RunNo: 43864								
Prep Date:	Analysis Date: 6/28/2017	SeqNo: 1383379			Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	ND	0.50								
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID LCS	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSW	Batch ID: R43864	RunNo: 43864								
Prep Date:	Analysis Date: 6/28/2017	SeqNo: 1383380			Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	4.7	0.50	5.000	0	93.5	90	110			
Nitrogen, Nitrate (As N)	2.4	0.10	2.500	0	97.3	90	110			
Sulfate	9.6	0.50	10.00	0	96.0	90	110			

Sample ID 1706E83-001DMS	SampType: ms	TestCode: EPA Method 300.0: Anions								
Client ID: Foothills MW-6	Batch ID: R43864	RunNo: 43864								
Prep Date:	Analysis Date: 6/28/2017	SeqNo: 1383396			Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	17	0.50	5.000	11.78	101	80.8	121			
Nitrogen, Nitrate (As N)	5.6	0.10	2.500	3.009	102	85.6	113			

Sample ID 1706E83-001DMSD	SampType: msd	TestCode: EPA Method 300.0: Anions								
Client ID: Foothills MW-6	Batch ID: R43864	RunNo: 43864								
Prep Date:	Analysis Date: 6/28/2017	SeqNo: 1383397			Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	17	0.50	5.000	11.78	103	80.8	121	0.513	20	
Nitrogen, Nitrate (As N)	5.6	0.10	2.500	3.009	103	85.6	113	0.341	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-32601	SampType: MBLK		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: PBW	Batch ID: 32601		RunNo: 43960							
Prep Date: 7/1/2017	Analysis Date: 7/1/2017		SeqNo: 1385722		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	0.020								
1,2-Dibromoethane	ND	0.010								

Sample ID LCS-32601	SampType: LCS		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: LCSW	Batch ID: 32601		RunNo: 43960							
Prep Date: 7/1/2017	Analysis Date: 7/1/2017		SeqNo: 1385723		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.092	0.020	0.1000	0	92.0	70	130			
1,2-Dibromoethane	0.091	0.010	0.1000	0	90.8	70	130			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID 100ng lcs	SampType: LCS		TestCode: EPA Method 8260B: Volatiles, Table I							
Client ID: LCSW	Batch ID: LF43852		RunNo: 43852							
Prep Date:	Analysis Date: 6/28/2017		SeqNo: 1383259				Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Chlorobenzene	21	1.0	20.00	0	103	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	100	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	100	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		106	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		110	70	130			
Surr: Dibromofluoromethane	11		10.00		111	70	130			
Surr: Toluene-d8	11		10.00		109	70	130			

Sample ID rb	SampType: MBLK		TestCode: EPA Method 8260B: Volatiles, Table I							
Client ID: PBW	Batch ID: LF43852		RunNo: 43852							
Prep Date:	Analysis Date: 6/28/2017		SeqNo: 1383262				Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
Acetone	ND	10								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	2.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	0.50								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: Volatiles, Table I					
Client ID:	PBW	Batch ID: LF43852			RunNo: 43852					
Prep Date:		Analysis Date: 6/28/2017			SeqNo: 1383262	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	2.5								
Styrene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
Tetrachloroethene (PCE)	ND	0.50								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	1.0								
Vinyl chloride	ND	0.40								
Xylenes, Total	ND	2.0								
Acrylonitrile	ND	10								
Bromochloromethane	ND	2.0								
Iodomethane	ND	10								
trans-1,4-Dichloro-2-butene	ND	10								
Vinyl acetate	ND	10								
Surr: 1,2-Dichloroethane-d4	10		10.00		105	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		109	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	11		10.00		107	70	130			

Sample ID	1706e83-001ams	SampType: MS			TestCode: EPA Method 8260B: Volatiles, Table I					
Client ID:	Foothills MW-6	Batch ID: LF43852			RunNo: 43852					
Prep Date:		Analysis Date: 6/28/2017			SeqNo: 1383278	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	106	70	130			
Toluene	21	1.0	20.00	0	104	70	130			
Chlorobenzene	21	1.0	20.00	0	106	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	110	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0.5360	101	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		111	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		111	70	130			
Surr: Dibromofluoromethane	11		10.00		113	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	1706e83-001ams	SampType:	MS	TestCode:	EPA Method 8260B: Volatiles, Table I					
Client ID:	Foothills MW-6	Batch ID:	LF43852	RunNo:	43852					
Prep Date:		Analysis Date:	6/28/2017	SeqNo:	1383278	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID	1706e83-001amsd	SampType:	MSD	TestCode:	EPA Method 8260B: Volatiles, Table I					
Client ID:	Foothills MW-6	Batch ID:	LF43852	RunNo:	43852					
Prep Date:		Analysis Date:	6/28/2017	SeqNo:	1383279	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	70	130	2.37	20	
Toluene	21	1.0	20.00	0	103	70	130	0.397	20	
Chlorobenzene	21	1.0	20.00	0	106	70	130	0.218	20	
1,1-Dichloroethene	21	1.0	20.00	0	105	70	130	3.85	20	
Trichloroethene (TCE)	21	1.0	20.00	0.5360	102	70	130	0.365	20	
Surr: 1,2-Dichloroethane-d4	12		10.00		115	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		113	70	130	0	0	
Surr: Dibromofluoromethane	12		10.00		115	70	130	0	0	
Surr: Toluene-d8	11		10.00		107	70	130	0	0	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: MBLK		TestCode: EPA Method 9060 TOC							
Client ID: PBW	Batch ID: R43956		RunNo: 43956							
Prep Date:	Analysis Date: 7/1/2017		SeqNo: 1385491		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	1.0								

Sample ID LCS ST9060-16016/	SampType: LCS		TestCode: EPA Method 9060 TOC							
Client ID: LCSW	Batch ID: R43956		RunNo: 43956							
Prep Date:	Analysis Date: 7/1/2017		SeqNo: 1385492		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	4.8	1.0	4.850	0	99.3	90	110			

Sample ID 1706E83-005FMS	SampType: MS		TestCode: EPA Method 9060 TOC							
Client ID: Foothills MW-5	Batch ID: R43956		RunNo: 43956							
Prep Date:	Analysis Date: 7/1/2017		SeqNo: 1385496		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	5.1	1.0	4.650	0.5917	96.6	75	125			

Sample ID 1706E83-005FMSD	SampType: MSD		TestCode: EPA Method 9060 TOC							
Client ID: Foothills MW-5	Batch ID: R43956		RunNo: 43956							
Prep Date:	Analysis Date: 7/1/2017		SeqNo: 1385497		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	5.1	1.0	4.650	0.5917	96.4	75	125	0.118	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	MB-32579	SampType:	MBLK	TestCode:	Total Phenolics by SW-846 9067					
Client ID:	PBW	Batch ID:	32579	RunNo:	43905					
Prep Date:	6/30/2017	Analysis Date:	6/30/2017	SeqNo:	1383952	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	ND	2.5								

Sample ID	LCS-32579	SampType:	LCS	TestCode:	Total Phenolics by SW-846 9067					
Client ID:	LCSW	Batch ID:	32579	RunNo:	43905					
Prep Date:	6/30/2017	Analysis Date:	6/30/2017	SeqNo:	1383953	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	20	2.5	20.00	0	98.6	62.4	146			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	1706e83-003d dup	SampType:	dup	TestCode:	SM2510B: Specific Conductance					
Client ID:	Foothills MW-2	Batch ID:	R44003	RunNo:	44003					
Prep Date:		Analysis Date:	7/3/2017	SeqNo:	1387329	Units:	µmhos/cm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	380	5.0						0.0796	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: MBLK		TestCode: SM 4500 NH3: Ammonia							
Client ID: PBW	Batch ID: R44217		RunNo: 44217							
Prep Date:	Analysis Date: 7/13/2017		SeqNo: 1395816		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	1.0								

Sample ID LCS	SampType: LCS		TestCode: SM 4500 NH3: Ammonia							
Client ID: LCSW	Batch ID: R44217		RunNo: 44217							
Prep Date:	Analysis Date: 7/13/2017		SeqNo: 1395817		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	10	1.0	10.00	0	101	80	120			

Sample ID 1706E83-001DMS	SampType: MS		TestCode: SM 4500 NH3: Ammonia							
Client ID: Foothills MW-6	Batch ID: R44217		RunNo: 44217							
Prep Date:	Analysis Date: 7/13/2017		SeqNo: 1395822		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	10	1.0	10.00	0	101	75	125			

Sample ID 1706E83-001DMSD	SampType: MSD		TestCode: SM 4500 NH3: Ammonia							
Client ID: Foothills MW-6	Batch ID: R44217		RunNo: 44217							
Prep Date:	Analysis Date: 7/13/2017		SeqNo: 1395823		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	10	1.0	10.00	0	101	75	125	0	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	1706e83-003d dup	SampType:	dup	TestCode:	SM4500-H+B: pH					
Client ID:	Foothills MW-2	Batch ID:	R44003	RunNo:	44003					
Prep Date:		Analysis Date:	7/3/2017	SeqNo:	1387365	Units:	pH units			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	8.01									H

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID mb-1	SampType: mbk		TestCode: SM2320B: Alkalinity							
Client ID: PBW	Batch ID: R44003		RunNo: 44003							
Prep Date:	Analysis Date: 7/3/2017		SeqNo: 1387252		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID ics-1	SampType: ics		TestCode: SM2320B: Alkalinity							
Client ID: LCSW	Batch ID: R44003		RunNo: 44003							
Prep Date:	Analysis Date: 7/3/2017		SeqNo: 1387253		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	79.00	20.00	80.00	0	98.8	90	110			

Sample ID mb-2	SampType: mbk		TestCode: SM2320B: Alkalinity							
Client ID: PBW	Batch ID: R44003		RunNo: 44003							
Prep Date:	Analysis Date: 7/3/2017		SeqNo: 1387276		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID ics-2	SampType: ics		TestCode: SM2320B: Alkalinity							
Client ID: LCSW	Batch ID: R44003		RunNo: 44003							
Prep Date:	Analysis Date: 7/3/2017		SeqNo: 1387277		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.16	20.00	80.00	0	97.7	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-32557	SampType: MBLK		TestCode: SM2540C MOD: Total Dissolved Solids							
Client ID: PBW	Batch ID: 32557		RunNo: 43903							
Prep Date: 6/28/2017	Analysis Date: 6/29/2017		SeqNo: 1383864		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID LCS-32557	SampType: LCS		TestCode: SM2540C MOD: Total Dissolved Solids							
Client ID: LCSW	Batch ID: 32557		RunNo: 43903							
Prep Date: 6/28/2017	Analysis Date: 6/29/2017		SeqNo: 1383865		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	987	20.0	1000	0	98.7	80	120			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |



Hall Environmental Analysis Laboratory
 4901 Hawkins NE
 Albuquerque, NM 87109
 TEL: 505-345-3975 FAX: 505-345-4107
 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: City of Las Cruces Work Order Number: 1706E83 RcptNo: 1

Received By: Sophia Campuzano 6/28/2017 9:00:00 AM
 Completed By: Ashley Gallegos 6/28/2017 9:54:15 AM
 Reviewed By: *SPC 06/28/17*

Chain of Custody

- 1. Custody seals intact on sample bottles? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? FedEx

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
 - 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
 - 6. Sample(s) in proper container(s)? Yes No
 - 7. Sufficient sample volume for indicated test(s)? Yes No
 - 8. Are samples (except VOA and ONG) properly preserved? Yes No
 - 9. Was preservative added to bottles? Yes No NA
 - 10. VOA vials have zero headspace? Yes No No VOA Vials
 - 11. Were any sample containers received broken? Yes No
 - 12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes No
 - 13. Are matrices correctly identified on Chain of Custody? Yes No
 - 14. Is it clear what analyses were requested? Yes No
 - 15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes No
- # of preserved bottles checked for pH: **15**
 (≤2 or >12 unless noted)
 Adjusted? **No**
 Checked by: *[Signature]*

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Yes			

Chain-of-Custody Record

Client: City of Las Cruces
Water Quality Laboratory
 Mailing Address: P.O. Box 20000
Las Cruces, N.M. 88004
 Phone #: 575-528-3604
 email or Fax#: (575-528-3630)
 QA/QC Package: Standard Level 4 (Full Validation)
 Standard Other
 Accreditation NELAP Other
 EDD (Type) EXCEL

Turn-Around Time: Standard Rush
 Project Name: Chc Foothills Landfill Closure Monitoring Wells
 Project #: Luis Bryant
POC: Joshua Rosenblatt
 Project Manager: Luis Bryant
lgumar@las-cruces.org
 Sampler: Jadira Rynca
 On Ice: Yes No
 Sample Temperature: 1.3

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. <u>83</u> <u>1706538</u>
1-29-17	0851	Ground Water	Foothills MW-6	Various	Various	-001
1-29-17	0948	Ground Water	Foothills MW-7	Various	Various	-002
1-29-17	1030	Ground Water	Foothills MW-2	Various	Various	-003
1-29-17	1127	Ground Water	Foothills MW-1	Various	Various	-004
1-29-17	1305	Ground Water	Foothills MW-5	Various	Various	-005

Date: 1-29-17 Time: 1500 Relinquished by: Jadira Rynca
 Date: 1-29-17 Time: 0900 Received by: Sophi Cruz



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com
 4901 Hawkins NE - Albuquerque, NM 87109
 Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Water: Reduced Parameters (list)	Air Bubbles (Y or N)

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
acetone	67-64-1	8260B	-	0.01	0.0195	-	mg/L	y
acrylonitrile	107-13-1	8260B	-	0.1	0.195	-	mg/L	y
benzene	71-43-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
bromochloromethane	74-97-5	8260B	-	0.001	0.00195	-	mg/L	y
bromodichloromethane	75-27-4	8260B	-	0.005	0.00975	-	mg/L	y
bromoform	75-25-2	8260B	-	0.015	0.02925	-	mg/L	y
carbon disulfide	75-15-0	8260B	-	0.001	0.00195	-	mg/L	y
carbon tetrachloride	56-23-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
chlorobenzene	108-90-7	8260B	0.1	0.005	0.05	0.075	mg/L	y
chloroethane	75-00-3	8260B	-	0.01	0.0195	-	mg/L	y
chloroform	67-66-3	8260B	0.1	0.005	0.05	0.75	mg/L	y
dibromochloromethane	124-48-1	8260B	-	0.005	0.00975	-	mg/L	y
1,2-dibromo-3-chloropropane	96-12-8	504.1	0.0002	0.0001	0.0001	0.00015	mg/L	y
1,2-dichlorobenzene	95-50-1	8260B	0.06	0.01	0.03	0.045	mg/L	y
1,3-dichlorobenzene	541-73-1	8260B	-	0.01	0.0195	-	mg/L	n
1,4-dichlorobenzene	106-46-7	8260B	0.075	0.015	0.0375	0.5625	mg/L	y
trans-1,4-dichloro-2-butene	110-57-6	8260B	-	0.001	0.00195	-	mg/L	y
dichlorodifluoromethane	75-71-8	8260B	-	0.005	0.00975	-	mg/L	n
1,1-dichloroethane	75-34-3	8260B	0.025	0.005	0.0125	0.01875	mg/L	y
1,2-dichloroethane (EDC)	107-06-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (continued)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
1,1-dichloroethylene (1,1-DCE)	75-35-4	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
cis-1,2-dichloroethylene	156-59-2	8260B	0.07	0.005	0.035	0.0525	mg/L	y
trans-1,2- dichloroethylene	156-60-5	8260B	0.1	0.005	0.05	0.075	mg/L	y
1,2-dichloropropane	78-87-5	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y
cis-1,3-dichloropropene	10061-01-5	8260B	-	0.02	0.039	-	mg/L	y
trans-1,3- dichloropropene	10061-02-6	8260B	-	0.01	0.0195	-	mg/L	y
ethylbenzene	100-41-4	8260B	0.7	0.01	0.35	0.525	mg/L	y
ethylene dibromide (EDB)	106-93-4	504.1	0.00005	0.000025	0.000025	0.000038	mg/L	y
2-hexanone	591-78-6	8260B	-	0.04	0.078	-	mg/L	y
methyl bromide	74-83-9	8260B	-	0.01	0.0195	-	mg/L	y
methyl chloride	74-87-3	8260B	-	0.001	0.00195	-	mg/L	y
methyl ethyl ketone	78-93-3	8260B	-	0.01	0.0195	-	mg/L	y
methyl iodide	74-88-4	8260B	-	0.05	0.0975	-	mg/L	y
4-methyl-2-pentanone	108-10-1	8260B	-	0.001	0.00195	-	mg/L	y
methylene bromide	74-95-3	8260B	-	0.001	0.00195	-	mg/L	y
methylene chloride	74-87-3	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
styrene	100-42-5	8260B	0.1	0.001	0.05	0.075	mg/L	y
1,1,1,2- tetrachloroethane	630-20-6	8260B	-	0.001	0.00195	-	mg/L	y
1,1,2,2- tetrachloroethane	79-34-5	8260B	0.01	0.005	0.005	0.0075	mg/L	y
tetrachloroethylene (PCE)	127-18-4	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells
MW-1 through MW-7, Las Cruces, New Mexico (continued)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
toluene	108-88-3	8260B	0.75	0.001	0.375	0.5625	mg/L	y
1,1,1-trichloroethane	71-55-6	8260B	0.06	0.005	0.03	0.045	mg/L	y
1,1,2-trichloroethane	79-00-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
trichloroethylene (TCE)	79-01-6	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
trichlorofluoromethane	75-69-4	8260B	-	0.01	0.0195	-	mg/L	y
1,2,3-trichloropropane	96-18-4	8260B	-	0.05	0.0975	-	mg/L	y
vinyl acetate	108-05-4	8260B	-	0.0004	0.00078	-	mg/L	y
vinyl chloride	75-01-4	8260B	0.001	0.0004	0.0005	0.00075	mg/L	y
xylenes	1330-20-7	8260B	0.62	0.0015	0.31	0.465	mg/L	y
ammonia as (N)	N/A	SM 4500 NH3	-	0.5	-	-	mg/L	n
nitrate (as N)	N/A	300.0	10	1.0	5.0	7.5	mg/L	n
chloride	16887-00-6	300.0	250	5.0	187.5	250	mg/L	n
sulfate	14808-79-8	300.0	250	5.0	187.5	250	mg/L	n
total dissolved solids	N/A	SM 2540C	500	5.0	-	-	mg/L	n
carbonate alkalinity	3812-32-6	SM 2320B	-	10	-	-	mg/L	n
bicarbonate alkalinity	71-52-3	SM 2320B	-	10	-	-	mg/L	n
total phenolics	N/A	9067	0.005	0.0025	0.0025	0.00375	mg/L	n
total organic carbon	N/A	9060	-	1	-	-	mg/L	n
barium (total)	7440-39-3	6010B	1	0.01	0.5	0.75	mg/L	y
beryllium (total)	7440-41-7	6010B	0.004	0.002	0.002	0.003	mg/L	y
cadmium (total)	7440-43-9	6010B	0.005	0.002	0.0025	0.00375	mg/L	y
calcium (total)	7440-70-2	6010B	-	1	-	-	mg/L	n
chromium (total)	7440-47-3	6010B	0.05	0.006	0.025	0.0375	mg/L	y
cobalt (total)	7440-48-4	6010B	0.05	0.006	0.025	0.0375	mg/L	y
copper (total)	7440-50-8	6010B	1	0.006	0.5	0.75	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (concluded)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
iron (total)	7439-89-6	6010B	0.3	0.1	0.225	0.3	mg/L	n
lead (total)	7439-92-1	6010B	0.05	0.005	0.025	0.0375	mg/L	y
magnesium (total)	7439-95-4	6010B	-	1	-	-	mg/L	n
manganese (total)	7439-96-5	6010B	0.05	0.03	0.0375	0.05	mg/L	n
nickel (total)	7440-02-0	6010B	0.2	0.01	0.1	0.15	mg/L	y
potassium (total)	7440-09-7	6010B	-	1	-	-	mg/L	n
silver (total)	7440-22-4	6010B	0.05	0.005	0.025	0.0375	mg/L	y
sodium (total)	7440-23-5	6010B	-	1	-	-	mg/L	n
vanadium (total)	7440-62-2	6010B	-	0.05	-	-	mg/L	y
zinc (total)	7440-66-6	6010B	5	0.02	2.5	3.75	mg/L	y
antimony (total)	7440-36-0	6020	0.006	0.001	0.003	0.0045	mg/L	y
arsenic (total)	7440-38-2	6020	0.01	0.004	0.005	0.0075	mg/L	y
selenium (total)	7782-49-2	6020	0.05	0.001	0.025	0.0375	mg/L	y
thallium (total)	7440-28-0	6020	0.002	0.001	0.001	0.0015	mg/L	y
pH	N/A	SM4500	6.5-8.5	+/- 0.1	-	-	S.U.	n
specific conductance	N/A	120.1	-	+/- 25	-	-	µS/cm	n
temperature	N/A	field	-	+/- 0.5	-	-	°F	n
water level elevation	N/A	field	-	+/- 0.01	-	-	ft	n

GWPS - ground water protection standard

PQL - practical quantitation limit

AML - assessment monitoring level

CAL - corrective action level

mg/L - milligrams per liter

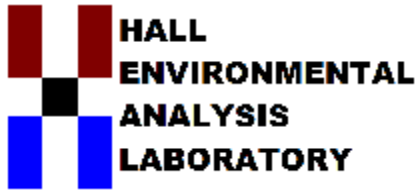
µS/cm - microSiemens per centimeter

S.U. - standard pH units

°F - degrees Fahrenheit

ft - feet

**Laboratory Results
December 2018**



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

January 07, 2019

Luis Guerra

City of Las Cruces

PO Box 20000

Las Cruces, NM 88004

TEL: (575) 528-3635

FAX (575) 528-3513

RE: CLC Foothills LF Closure MWs

OrderNo.: 1812757

Dear Luis Guerra:

Hall Environmental Analysis Laboratory received 2 sample(s) on 12/13/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1812757

Date Reported: 1/7/2019

CLIENT: City of Las Cruces

Client Sample ID: CLC MW#4

Project: CLC Foothills LF Closure MWs

Collection Date: 12/12/2018 10:35:00 AM

Lab ID: 1812757-001

Matrix: AQUEOUS

Received Date: 12/13/2018 8:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	12/17/2018 6:11:08 PM	42090
1,2-Dibromoethane	ND	0.0094		µg/L	1	12/17/2018 6:11:08 PM	42090
EPA METHOD 9060 TOC							Analyst: CLP
Total Organic Carbon	ND	1.0		mg/L	1	12/20/2018 1:16:45 AM	R56479
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	7.1	0.50		mg/L	1	12/13/2018 7:27:17 PM	R56342
Nitrogen, Nitrate (As N)	0.94	0.10		mg/L	1	12/13/2018 7:27:17 PM	R56342
Sulfate	34	0.50		mg/L	1	12/13/2018 7:27:17 PM	R56342
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	710	5.0		µmhos/c	1	12/17/2018 3:08:14 PM	R56422
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	344.3	20.00		mg/L Ca	1	12/17/2018 3:08:14 PM	R56422
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	12/17/2018 3:08:14 PM	R56422
Total Alkalinity (as CaCO3)	344.3	20.00		mg/L Ca	1	12/17/2018 3:08:14 PM	R56422
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: CJS
Total Dissolved Solids	403	20.0		mg/L	1	12/19/2018 4:00:00 PM	42169
SM 4500 NH3: AMMONIA							Analyst: OG
Nitrogen, Ammonia	ND	1.0		mg/L	1	12/26/2018 1:50:00 PM	R56597
SM4500-H+B / 9040C: PH							Analyst: JRR
pH	7.25		H	pH units	1	12/17/2018 3:08:14 PM	R56422
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.086	0.0020		mg/L	1	12/27/2018 5:35:19 PM	42132
Beryllium	ND	0.0020		mg/L	1	12/27/2018 5:35:19 PM	42132
Cadmium	ND	0.0020		mg/L	1	12/27/2018 5:35:19 PM	42132
Calcium	110	5.0		mg/L	5	12/27/2018 5:37:41 PM	42132
Chromium	ND	0.0060		mg/L	1	12/27/2018 5:35:19 PM	42132
Cobalt	ND	0.0060		mg/L	1	12/27/2018 5:35:19 PM	42132
Copper	0.023	0.0060		mg/L	1	12/27/2018 5:35:19 PM	42132
Iron	ND	0.020		mg/L	1	12/27/2018 5:35:19 PM	42132
Magnesium	14	1.0		mg/L	1	12/27/2018 5:35:19 PM	42132
Manganese	ND	0.0020		mg/L	1	12/27/2018 5:35:19 PM	42132
Nickel	ND	0.010		mg/L	1	12/27/2018 5:35:19 PM	42132
Potassium	2.6	1.0		mg/L	1	12/27/2018 5:35:19 PM	42132
Silver	ND	0.0050		mg/L	1	12/27/2018 5:35:19 PM	42132
Sodium	30	1.0		mg/L	1	12/27/2018 5:35:19 PM	42132

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1812757

Date Reported: 1/7/2019

CLIENT: City of Las Cruces

Client Sample ID: CLC MW#4

Project: CLC Foothills LF Closure MWs

Collection Date: 12/12/2018 10:35:00 AM

Lab ID: 1812757-001

Matrix: AQUEOUS

Received Date: 12/13/2018 8:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Vanadium	ND	0.050		mg/L	1	12/27/2018 5:35:19 PM	42132
Zinc	0.017	0.010		mg/L	1	12/27/2018 5:35:19 PM	42132
200.8 ICPMS METALS:TOTAL							Analyst: DBK
Antimony	ND	0.0010		mg/L	1	12/21/2018 4:29:52 PM	42132
Arsenic	0.0012	0.0010		mg/L	1	12/21/2018 4:29:52 PM	42132
Lead	0.0014	0.00050		mg/L	1	12/21/2018 4:29:52 PM	42132
Selenium	ND	0.0010		mg/L	1	12/21/2018 4:29:52 PM	42132
Thallium	ND	0.00050		mg/L	1	12/21/2018 4:29:52 PM	42132
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
Benzene	ND	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
Toluene	ND	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
Ethylbenzene	ND	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
Acetone	ND	10		µg/L	1	12/14/2018 10:45:52 AM	A56369
Bromodichloromethane	ND	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
Bromoform	ND	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
Bromomethane	ND	2.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
2-Butanone	ND	10		µg/L	1	12/14/2018 10:45:52 AM	A56369
Carbon disulfide	ND	10		µg/L	1	12/14/2018 10:45:52 AM	A56369
Carbon Tetrachloride	ND	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
Chlorobenzene	ND	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
Chloroethane	ND	2.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
Chloroform	ND	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
Chloromethane	ND	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
cis-1,2-DCE	2.0	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
Dibromochloromethane	ND	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
Dibromomethane	ND	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
1,3-Dichlorobenzene	ND	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
Dichlorodifluoromethane	2.3	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
1,1-Dichloroethane	2.9	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
1,1-Dichloroethene	ND	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
1,2-Dichloropropane	ND	0.50		µg/L	1	12/14/2018 10:45:52 AM	A56369
2-Hexanone	ND	10		µg/L	1	12/14/2018 10:45:52 AM	A56369
4-Methyl-2-pentanone	ND	10		µg/L	1	12/14/2018 10:45:52 AM	A56369
Methylene Chloride	13	2.5		µg/L	1	12/14/2018 10:45:52 AM	A56369

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1812757

Date Reported: 1/7/2019

CLIENT: City of Las Cruces

Client Sample ID: CLC MW#4

Project: CLC Foothills LF Closure MWs

Collection Date: 12/12/2018 10:35:00 AM

Lab ID: 1812757-001

Matrix: AQUEOUS

Received Date: 12/13/2018 8:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
Styrene	ND	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
Tetrachloroethene (PCE)	8.6	0.50		µg/L	1	12/14/2018 10:45:52 AM	A56369
trans-1,2-DCE	ND	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
Trichloroethene (TCE)	2.8	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
Trichlorofluoromethane	1.2	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
1,2,3-Trichloropropane	ND	1.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
Vinyl chloride	ND	0.40		µg/L	1	12/14/2018 10:45:52 AM	A56369
Xylenes, Total	ND	2.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
Acrylonitrile	ND	10		µg/L	1	12/14/2018 10:45:52 AM	A56369
Bromochloromethane	ND	2.0		µg/L	1	12/14/2018 10:45:52 AM	A56369
Iodomethane	ND	10		µg/L	1	12/14/2018 10:45:52 AM	A56369
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/14/2018 10:45:52 AM	A56369
Vinyl acetate	ND	10		µg/L	1	12/14/2018 10:45:52 AM	A56369
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	12/14/2018 10:45:52 AM	A56369
Surr: 4-Bromofluorobenzene	99.3	70-130		%Rec	1	12/14/2018 10:45:52 AM	A56369
Surr: Dibromofluoromethane	106	70-130		%Rec	1	12/14/2018 10:45:52 AM	A56369
Surr: Toluene-d8	97.5	70-130		%Rec	1	12/14/2018 10:45:52 AM	A56369
TOTAL PHENOLICS BY SW-846 9067							Analyst: CLP
Phenolics	ND	2.5		µg/L	1	1/7/2019	42458

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1812757

Date Reported: 1/7/2019

CLIENT: City of Las Cruces

Client Sample ID: Trip Blank

Project: CLC Foothills LF Closure MWs

Collection Date:

Lab ID: 1812757-002

Matrix: TRIP BLANK

Received Date: 12/13/2018 8:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	12/17/2018 6:26:08 PM	42090
1,2-Dibromoethane	ND	0.0095		µg/L	1	12/17/2018 6:26:08 PM	42090
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
Benzene	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
Toluene	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
Ethylbenzene	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
Acetone	ND	10		µg/L	1	12/14/2018 12:14:19 PM	A56369
Bromodichloromethane	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
Bromoform	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
Bromomethane	ND	2.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
2-Butanone	ND	10		µg/L	1	12/14/2018 12:14:19 PM	A56369
Carbon disulfide	ND	10		µg/L	1	12/14/2018 12:14:19 PM	A56369
Carbon Tetrachloride	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
Chlorobenzene	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
Chloroethane	ND	2.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
Chloroform	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
Chloromethane	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
cis-1,2-DCE	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
Dibromochloromethane	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
Dibromomethane	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
1,3-Dichlorobenzene	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
Dichlorodifluoromethane	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
1,1-Dichloroethane	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
1,1-Dichloroethene	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
1,2-Dichloropropane	ND	0.50		µg/L	1	12/14/2018 12:14:19 PM	A56369
2-Hexanone	ND	10		µg/L	1	12/14/2018 12:14:19 PM	A56369
4-Methyl-2-pentanone	ND	10		µg/L	1	12/14/2018 12:14:19 PM	A56369
Methylene Chloride	ND	2.5		µg/L	1	12/14/2018 12:14:19 PM	A56369
Styrene	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
Tetrachloroethene (PCE)	ND	0.50		µg/L	1	12/14/2018 12:14:19 PM	A56369
trans-1,2-DCE	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1812757

Date Reported: 1/7/2019

CLIENT: City of Las Cruces

Client Sample ID: Trip Blank

Project: CLC Foothills LF Closure MWs

Collection Date:

Lab ID: 1812757-002

Matrix: TRIP BLANK

Received Date: 12/13/2018 8:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
Trichlorofluoromethane	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
1,2,3-Trichloropropane	ND	1.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
Vinyl chloride	ND	0.40		µg/L	1	12/14/2018 12:14:19 PM	A56369
Xylenes, Total	ND	2.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
Acrylonitrile	ND	10		µg/L	1	12/14/2018 12:14:19 PM	A56369
Bromochloromethane	ND	2.0		µg/L	1	12/14/2018 12:14:19 PM	A56369
Iodomethane	ND	10		µg/L	1	12/14/2018 12:14:19 PM	A56369
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/14/2018 12:14:19 PM	A56369
Vinyl acetate	ND	10		µg/L	1	12/14/2018 12:14:19 PM	A56369
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	1	12/14/2018 12:14:19 PM	A56369
Surr: 4-Bromofluorobenzene	97.0	70-130		%Rec	1	12/14/2018 12:14:19 PM	A56369
Surr: Dibromofluoromethane	107	70-130		%Rec	1	12/14/2018 12:14:19 PM	A56369
Surr: Toluene-d8	94.9	70-130		%Rec	1	12/14/2018 12:14:19 PM	A56369

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812757

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills LF Closure MWs

Sample ID MB-42132	SampType: MBLK	TestCode: EPA Method 200.7: Total Metals								
Client ID: PBW	Batch ID: 42132	RunNo: 56476								
Prep Date: 12/14/2018	Analysis Date: 12/19/2018	SeqNo: 1888686	Units: mg/L							

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Potassium	ND	1.0								
Sodium	ND	1.0								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID LLCS-42132	SampType: LCSLL	TestCode: EPA Method 200.7: Total Metals								
Client ID: BatchQC	Batch ID: 42132	RunNo: 56476								
Prep Date: 12/14/2018	Analysis Date: 12/19/2018	SeqNo: 1888688	Units: mg/L							

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	0.0022	0.0020	0.002000	0	110	50	150			
Cadmium	0.0024	0.0020	0.002000	0	120	50	150			
Calcium	ND	1.0	0.5000	0	118	50	150			
Chromium	0.0073	0.0060	0.006000	0	122	50	150			
Cobalt	0.0065	0.0060	0.006000	0	109	50	150			
Copper	0.0095	0.0060	0.006000	0	159	50	150			S
Iron	0.021	0.020	0.02000	0	106	50	150			
Magnesium	ND	1.0	0.5000	0	113	50	150			
Manganese	0.0024	0.0020	0.002000	0	118	50	150			
Nickel	ND	0.010	0.005000	0	103	50	150			
Potassium	ND	1.0	0.5000	0	96.7	50	150			
Sodium	ND	1.0	0.5000	0	127	50	150			
Vanadium	ND	0.050	0.01000	0	113	50	150			

Sample ID LCS-42132	SampType: LCS	TestCode: EPA Method 200.7: Total Metals								
Client ID: LCSW	Batch ID: 42132	RunNo: 56476								
Prep Date: 12/14/2018	Analysis Date: 12/19/2018	SeqNo: 1888690	Units: mg/L							

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	0.56	0.0020	0.5000	0	112	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812757

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills LF Closure MWs

Sample ID	LCS-42132		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals				
Client ID:	LCSW		Batch ID:	42132		RunNo:	56476				
Prep Date:	12/14/2018		Analysis Date:	12/19/2018		SeqNo:	1888690		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Cadmium	0.54	0.0020	0.5000	0	109	85	115				
Calcium	55	1.0	50.00	0	110	85	115				
Chromium	0.56	0.0060	0.5000	0	113	85	115				
Cobalt	0.54	0.0060	0.5000	0	108	85	115				
Copper	0.55	0.0060	0.5000	0	110	85	115				
Iron	0.56	0.020	0.5000	0	112	85	115				
Magnesium	53	1.0	50.00	0	107	85	115				
Manganese	0.55	0.0020	0.5000	0	111	85	115				
Nickel	0.55	0.010	0.5000	0	111	85	115				
Potassium	53	1.0	50.00	0	105	85	115				
Sodium	53	1.0	50.00	0	107	85	115				
Vanadium	0.57	0.050	0.5000	0	114	85	115				
Zinc	0.55	0.010	0.5000	0	111	85	115				

Sample ID	LLCS-42132		SampType:	LCSLL		TestCode:	EPA Method 200.7: Total Metals				
Client ID:	BatchQC		Batch ID:	42132		RunNo:	56476				
Prep Date:	12/14/2018		Analysis Date:	12/19/2018		SeqNo:	1888702		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Zinc	ND	0.010	0.005000	0	151	50	150			S	

Sample ID	MB-42132		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals				
Client ID:	PBW		Batch ID:	42132		RunNo:	56532				
Prep Date:	12/14/2018		Analysis Date:	12/21/2018		SeqNo:	1890780		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Barium	ND	0.0020									
Beryllium	ND	0.0020									
Cadmium	ND	0.0020									
Calcium	ND	1.0									
Chromium	ND	0.0060									
Cobalt	ND	0.0060									
Copper	ND	0.0060									
Iron	ND	0.020									
Magnesium	ND	1.0									
Manganese	ND	0.0020									
Nickel	ND	0.010									
Potassium	ND	1.0									
Silver	ND	0.0050									
Sodium	ND	1.0									

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812757

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills LF Closure MWs

Sample ID MB-42132	SampType: MBLK		TestCode: EPA Method 200.7: Total Metals							
Client ID: PBW	Batch ID: 42132		RunNo: 56532							
Prep Date: 12/14/2018	Analysis Date: 12/21/2018		SeqNo: 1890780		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID LLCS-42132	SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals							
Client ID: BatchQC	Batch ID: 42132		RunNo: 56532							
Prep Date: 12/14/2018	Analysis Date: 12/21/2018		SeqNo: 1890782		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	97.8	50	150			
Beryllium	ND	0.0020	0.002000	0	98.1	50	150			
Cadmium	0.0023	0.0020	0.002000	0	114	50	150			
Calcium	ND	1.0	0.5000	0	109	50	150			
Chromium	0.0066	0.0060	0.006000	0	111	50	150			
Cobalt	0.0063	0.0060	0.006000	0	105	50	150			
Copper	0.0079	0.0060	0.006000	0	131	50	150			
Iron	0.021	0.020	0.02000	0	104	50	150			
Magnesium	ND	1.0	0.5000	0	105	50	150			
Manganese	0.0022	0.0020	0.002000	0	108	50	150			
Nickel	ND	0.010	0.005000	0	72.4	50	150			
Potassium	ND	1.0	0.5000	0	110	50	150			
Silver	ND	0.0050	0.005000	0	96.3	50	150			
Sodium	ND	1.0	0.5000	0	140	50	150			
Vanadium	ND	0.050	0.01000	0	99.7	50	150			

Sample ID LCS-42132	SampType: LCS		TestCode: EPA Method 200.7: Total Metals							
Client ID: LCSW	Batch ID: 42132		RunNo: 56532							
Prep Date: 12/14/2018	Analysis Date: 12/21/2018		SeqNo: 1890784		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.6	85	115			
Beryllium	0.50	0.0020	0.5000	0	99.1	85	115			
Cadmium	0.48	0.0020	0.5000	0	95.8	85	115			
Calcium	51	1.0	50.00	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Cobalt	0.48	0.0060	0.5000	0	95.1	85	115			
Copper	0.50	0.0060	0.5000	0	101	85	115			
Iron	0.50	0.020	0.5000	0	101	85	115			
Magnesium	50	1.0	50.00	0	99.6	85	115			
Manganese	0.49	0.0020	0.5000	0	97.4	85	115			
Nickel	0.48	0.010	0.5000	0	95.6	85	115			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812757

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills LF Closure MWs

Sample ID	LCS-42132	SampType:	LCS	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	LCSW	Batch ID:	42132	RunNo:	56532					
Prep Date:	12/14/2018	Analysis Date:	12/21/2018	SeqNo:	1890784	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	49	1.0	50.00	0	98.5	85	115			
Silver	0.099	0.0050	0.1000	0	98.9	85	115			
Sodium	50	1.0	50.00	0	99.6	85	115			
Vanadium	0.50	0.050	0.5000	0	101	85	115			
Zinc	0.48	0.010	0.5000	0	95.4	85	115			

Sample ID	LLCS-42132	SampType:	LCSLL	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID:	42132	RunNo:	56532					
Prep Date:	12/14/2018	Analysis Date:	12/21/2018	SeqNo:	1890786	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010	0.005000	0	143	50	150			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812757

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills LF Closure MWs

Sample ID	MB-42132	SampType:	MBLK	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID:	42132	RunNo:	56410					
Prep Date:	12/14/2018	Analysis Date:	12/18/2018	SeqNo:	1886197	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Thallium	ND	0.00050								

Sample ID	MSLLCS-42132	SampType:	LCSLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID:	42132	RunNo:	56410					
Prep Date:	12/14/2018	Analysis Date:	12/18/2018	SeqNo:	1886199	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	100	50	150			
Lead	ND	0.00050	0.0005000	0	99.9	50	150			
Selenium	ND	0.0010	0.001000	0	98.0	50	150			
Thallium	0.00051	0.00050	0.0005000	0	102	50	150			

Sample ID	MSLCS-42132	SampType:	LCS	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	LCSW	Batch ID:	42132	RunNo:	56410					
Prep Date:	12/14/2018	Analysis Date:	12/18/2018	SeqNo:	1886201	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.7	85	115			
Lead	0.012	0.00050	0.01250	0	97.8	85	115			
Selenium	0.024	0.0010	0.02500	0	94.0	85	115			
Thallium	0.012	0.00050	0.01250	0	97.9	85	115			

Sample ID	MB-42132	SampType:	MBLK	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID:	42132	RunNo:	56484					
Prep Date:	12/14/2018	Analysis Date:	12/19/2018	SeqNo:	1889223	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								

Sample ID	MSLLCS-42132	SampType:	LCSLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID:	42132	RunNo:	56484					
Prep Date:	12/14/2018	Analysis Date:	12/19/2018	SeqNo:	1889225	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.0011	0.0010	0.001000	0	114	50	150			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812757

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills LF Closure MWs

Sample ID	MSLCS-42132	SampType:	LCS	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	LCSW	Batch ID:	42132	RunNo:	56484					
Prep Date:	12/14/2018	Analysis Date:	12/19/2018	SeqNo:	1889227	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.027	0.0010	0.02500	0	106	85	115			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812757

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills LF Closure MWs

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R56342		RunNo: 56342							
Prep Date:	Analysis Date: 12/13/2018		SeqNo: 1883414		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R56342		RunNo: 56342							
Prep Date:	Analysis Date: 12/13/2018		SeqNo: 1883415		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	95.1	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.4	90	110			
Sulfate	9.7	0.50	10.00	0	97.1	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812757

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills LF Closure MWs

Sample ID MB-42090	SampType: MBLK		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: PBW	Batch ID: 42090		RunNo: 56419							
Prep Date: 12/17/2018	Analysis Date: 12/17/2018		SeqNo: 1886324		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	0.020								
1,2-Dibromoethane	ND	0.010								

Sample ID LCS-42090	SampType: LCS		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: LCSW	Batch ID: 42090		RunNo: 56419							
Prep Date: 12/17/2018	Analysis Date: 12/17/2018		SeqNo: 1886326		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.095	0.020	0.1000	0	94.8	70	130			
1,2-Dibromoethane	0.083	0.010	0.1000	0	82.6	70	130			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812757

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills LF Closure MWs

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles, Table I					
Client ID:	PBW	Batch ID:	A56369	RunNo:	56369					
Prep Date:		Analysis Date:	12/14/2018	SeqNo:	1884593	Units:	µg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
Acetone	ND	10								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	2.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	0.50								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	2.5								
Styrene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
Tetrachloroethene (PCE)	ND	0.50								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	1.0								
Vinyl chloride	ND	0.40								

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812757

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills LF Closure MWs

Sample ID rb	SampType: MBLK		TestCode: EPA Method 8260B: Volatiles, Table I							
Client ID: PBW	Batch ID: A56369		RunNo: 56369							
Prep Date:	Analysis Date: 12/14/2018		SeqNo: 1884593		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	ND	2.0								
Acrylonitrile	ND	10								
Bromochloromethane	ND	2.0								
Iodomethane	ND	10								
trans-1,4-Dichloro-2-butene	ND	10								
Vinyl acetate	ND	10								
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		93.8	70	130			
Surr: Dibromofluoromethane	10		10.00		105	70	130			
Surr: Toluene-d8	9.4		10.00		94.1	70	130			

Sample ID 100ng lcs	SampType: LCS		TestCode: EPA Method 8260B: Volatiles, Table I							
Client ID: LCSW	Batch ID: A56369		RunNo: 56369							
Prep Date:	Analysis Date: 12/14/2018		SeqNo: 1884595		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	70	130			
Toluene	19	1.0	20.00	0	93.7	70	130			
Chlorobenzene	19	1.0	20.00	0	93.6	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	108	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	98.6	70	130			
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.4	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.2	70	130			
Surr: Dibromofluoromethane	11		10.00		106	70	130			
Surr: Toluene-d8	9.3		10.00		92.8	70	130			

Sample ID 1812757-001a ms	SampType: MS		TestCode: EPA Method 8260B: Volatiles, Table I							
Client ID: CLC MW#4	Batch ID: A56369		RunNo: 56369							
Prep Date:	Analysis Date: 12/14/2018		SeqNo: 1884600		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0.5774	104	70	130			
Toluene	19	1.0	20.00	0	95.6	70	130			
Chlorobenzene	19	1.0	20.00	0	95.2	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	109	67.6	130			
Trichloroethene (TCE)	22	1.0	20.00	2.751	98.0	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	9.6		10.00		96.2	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812757

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills LF Closure MWs

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0.5774	101	70	130	2.47	20	
Toluene	19	1.0	20.00	0	92.9	70	130	2.78	20	
Chlorobenzene	19	1.0	20.00	0	94.1	70	130	1.11	20	
1,1-Dichloroethene	22	1.0	20.00	0	110	67.6	130	1.46	20	
Trichloroethene (TCE)	22	1.0	20.00	2.751	96.5	70	130	1.29	20	
Surr: 1,2-Dichloroethane-d4	11		10.00		105	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.6		10.00		96.0	70	130	0	0	
Surr: Dibromofluoromethane	11		10.00		108	70	130	0	0	
Surr: Toluene-d8	9.6		10.00		95.9	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812757

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills LF Closure MWs

Sample ID MB	SampType: MBLK		TestCode: EPA Method 9060 TOC							
Client ID: PBW	Batch ID: R56479		RunNo: 56479							
Prep Date:	Analysis Date: 12/19/2018		SeqNo: 1888640		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	1.0								

Sample ID LCS ST9060-18020	SampType: LCS		TestCode: EPA Method 9060 TOC							
Client ID: LCSW	Batch ID: R56479		RunNo: 56479							
Prep Date:	Analysis Date: 12/19/2018		SeqNo: 1888641		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	5.2	1.0	4.850	0	108	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812757

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills LF Closure MWs

Sample ID MB-42458	SampType: MBLK		TestCode: Total Phenolics by SW-846 9067							
Client ID: PBW	Batch ID: 42458		RunNo: 56797							
Prep Date: 1/7/2019	Analysis Date: 1/7/2019		SeqNo: 1901066		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	ND	2.5								

Sample ID LCS-42458	SampType: LCS		TestCode: Total Phenolics by SW-846 9067							
Client ID: LCSW	Batch ID: 42458		RunNo: 56797							
Prep Date: 1/7/2019	Analysis Date: 1/7/2019		SeqNo: 1901067		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	18	2.5	20.00	0	87.6	53.3	138			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812757

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills LF Closure MWs

Sample ID	lcs-1 99.0uS eC		SampType: LCS		TestCode: SM2510B: Specific Conductance					
Client ID:	LCSW		Batch ID: R56422		RunNo: 56422					
Prep Date:			Analysis Date: 12/17/2018		SeqNo: 1886455		Units: µmhos/cm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	100	5.0	99.00	0	105	80	120			

Sample ID	lcs-2 99.0uS eC		SampType: LCS		TestCode: SM2510B: Specific Conductance					
Client ID:	LCSW		Batch ID: R56422		RunNo: 56422					
Prep Date:			Analysis Date: 12/17/2018		SeqNo: 1886481		Units: µmhos/cm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	110	5.0	99.00	0	108	80	120			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812757

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills LF Closure MWs

Sample ID MB	SampType: MBLK		TestCode: SM 4500 NH3: Ammonia							
Client ID: PBW	Batch ID: R56597		RunNo: 56597							
Prep Date:	Analysis Date: 12/26/2018		SeqNo: 1893393		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	1.0								

Sample ID LCS	SampType: LCS		TestCode: SM 4500 NH3: Ammonia							
Client ID: LCSW	Batch ID: R56597		RunNo: 56597							
Prep Date:	Analysis Date: 12/26/2018		SeqNo: 1893394		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	10	1.0	10.00	0	101	80	120			

Sample ID 1812757-001EMS	SampType: MS		TestCode: SM 4500 NH3: Ammonia							
Client ID: CLC MW#4	Batch ID: R56597		RunNo: 56597							
Prep Date:	Analysis Date: 12/26/2018		SeqNo: 1893408		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	9.9	1.0	10.00	0	99.4	75	125			

Sample ID 1812757-001EMSD	SampType: MSD		TestCode: SM 4500 NH3: Ammonia							
Client ID: CLC MW#4	Batch ID: R56597		RunNo: 56597							
Prep Date:	Analysis Date: 12/26/2018		SeqNo: 1893409		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	9.9	1.0	10.00	0	99.4	75	125	0	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812757

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills LF Closure MWs

Sample ID	mb-1 alk	SampType:	MBLK	TestCode:	SM2320B: Alkalinity					
Client ID:	PBW	Batch ID:	R56422	RunNo:	56422					
Prep Date:		Analysis Date:	12/17/2018	SeqNo:	1886490	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID	ics-1 alk	SampType:	LCS	TestCode:	SM2320B: Alkalinity					
Client ID:	LCSW	Batch ID:	R56422	RunNo:	56422					
Prep Date:		Analysis Date:	12/17/2018	SeqNo:	1886491	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	77.28	20.00	80.00	0	96.6	90	110			

Sample ID	mb-2 alk	SampType:	MBLK	TestCode:	SM2320B: Alkalinity					
Client ID:	PBW	Batch ID:	R56422	RunNo:	56422					
Prep Date:		Analysis Date:	12/17/2018	SeqNo:	1886516	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID	ics-2 alk	SampType:	LCS	TestCode:	SM2320B: Alkalinity					
Client ID:	LCSW	Batch ID:	R56422	RunNo:	56422					
Prep Date:		Analysis Date:	12/17/2018	SeqNo:	1886517	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	77.72	20.00	80.00	0	97.2	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812757

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills LF Closure MWs

Sample ID	MB-42169	SampType:	MBLK	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	PBW	Batch ID:	42169	RunNo:	56470					
Prep Date:	12/18/2018	Analysis Date:	12/19/2018	SeqNo:	1888244	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	LCS-42169	SampType:	LCS	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	LCSW	Batch ID:	42169	RunNo:	56470					
Prep Date:	12/18/2018	Analysis Date:	12/19/2018	SeqNo:	1888245	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1000	20.0	1000	0	100	80	120			

Sample ID	1812757-001EDUP	SampType:	DUP	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	CLC MW#4	Batch ID:	42169	RunNo:	56470					
Prep Date:	12/18/2018	Analysis Date:	12/19/2018	SeqNo:	1888247	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	432	20.0						6.95	5	R

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Sample Log-In Check List

Client Name: **City of Las Cruces**

Work Order Number: **1812757**

RcptNo: **1**

Received By: **Victoria Zellar** 12/13/2018 8:40:00 AM

Victoria Zellar

Completed By: **Erin Melendrez** 12/13/2018 10:30:36 AM

Erin Melendrez

Reviewed By: **JAB 12/13/18**
LB: DAD 12/13/18

Chain of Custody

1. Is Chain of Custody complete? Yes No Not Present
 2. How was the sample delivered? FedEx

Log In

3. Was an attempt made to cool the samples? Yes No NA
 4. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
 5. Sample(s) in proper container(s)? Yes No
 6. Sufficient sample volume for indicated test(s)? Yes No
 7. Are samples (except VOA and ONG) properly preserved? Yes No
 8. Was preservative added to bottles? Yes No NA
 9. VOA vials have zero headspace? Yes No No VOA Vials
 10. Were any sample containers received broken? Yes No
 11. Does paperwork match bottle labels? Yes No
 (Note discrepancies on chain of custody)
 12. Are matrices correctly identified on Chain of Custody? Yes No
 13. Is it clear what analyses were requested? Yes No
 14. Were all holding times able to be met? Yes No
 (If no, notify customer for authorization.)

of preserved bottles checked for pH: 4
 (2) or >12 unless noted
 Adjusted? NO
 Checked by: DAD 12/13/18

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes No NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.2	Good	Yes			

October 12, 2009

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico

parameters	CAS no.	method	GWFS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
acetone	67-64-1	8260B	-	0.01	0.0195	-	mg/L	y
acrylonitrile	107-13-1	8260B	-	0.1	0.195	-	mg/L	y
benzene	71-43-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
bromochloromethane	74-97-5	8260B	-	0.001	0.00195	-	mg/L	y
bromodichloromethane	75-27-4	8260B	-	0.005	0.00975	-	mg/L	y
bromoform	75-25-2	8260B	-	0.015	0.02925	-	mg/L	y
carbon disulfide	75-15-0	8260B	-	0.001	0.00195	-	mg/L	y
carbon tetrachloride	56-23-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
chlorobenzene	108-90-7	8260B	0.1	0.005	0.05	0.075	mg/L	y
chloroethane	75-00-3	8260B	-	0.01	0.0195	-	mg/L	y
chloroform	67-66-3	8260B	0.1	0.005	0.05	0.75	mg/L	y
dibromochloromethane	124-48-1	8260B	-	0.005	0.00975	-	mg/L	y
1,2-dibromo-3-chloropropane	96-12-8	504.1	0.0002	0.0001	0.0001	0.00015	mg/L	y
1,2-dichlorobenzene	95-50-1	8260B	0.06	0.01	0.03	0.045	mg/L	y
1,3-dichlorobenzene	541-73-1	8260B	-	0.01	0.0195	-	mg/L	y
1,4-dichlorobenzene	106-46-7	8260B	0.075	0.015	0.0375	0.5625	mg/L	n
trans-1,4-dichloro-2-butene	110-57-6	8260B	-	0.001	0.00195	-	mg/L	y
dichlorodifluoromethane	75-71-8	8260B	-	0.005	0.00975	-	mg/L	y
1,1-dichloroethane	75-34-3	8260B	0.025	0.005	0.0125	0.01875	mg/L	n
1,2-dichloroethane (EDC)	107-06-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y

October 12, 2009

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (continued)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Appendix I, Part 258, 40 CFR
1,1-dichloroethylene (1,1-DCE)	75-35-4	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
cis-1,2-dichloroethylene	156-59-2	8260B	0.07	0.005	0.035	0.0525	mg/L	y
trans-1,2-dichloroethylene	156-60-5	8260B	0.1	0.005	0.05	0.075	mg/L	y
1,2-dichloropropane	78-87-5	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y
cis-1,3-dichloropropene	10061-01-5	8260B	-	0.02	0.039	-	mg/L	y
trans-1,3-dichloropropene	10061-02-6	8260B	-	0.01	0.0195	-	mg/L	y
ethylbenzene	100-41-4	8260B	0.7	0.01	0.35	0.525	mg/L	y
ethylene dibromide (EDB)	106-93-4	504.1	0.00005	0.000025	0.000025	0.000038	mg/L	y
2-hexanone	591-78-6	8260B	-	0.04	0.078	-	mg/L	y
methyl bromide	74-83-9	8260B	-	0.01	0.0195	-	mg/L	y
methyl chloride	74-87-3	8260B	-	0.001	0.00195	-	mg/L	y
methyl ethyl ketone	78-93-3	8260B	-	0.01	0.0195	-	mg/L	y
methyl iodide	74-88-4	8260B	-	0.05	0.0975	-	mg/L	y
4-methyl-2-pentanone	108-10-1	8260B	-	0.001	0.00195	-	mg/L	y
methylene bromide	74-95-3	8260B	-	0.001	0.00195	-	mg/L	y
methylene chloride	74-87-3	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
styrene	100-42-5	8260B	0.1	0.001	0.05	0.075	mg/L	y
1,1,1,2-tetrachloroethane	630-20-6	8260B	-	0.001	0.00195	-	mg/L	y
1,1,2,2-tetrachloroethane	79-34-5	8260B	0.01	0.005	0.005	0.0075	mg/L	y
tetrachloroethylene (PCE)	127-18-4	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y

October 12, 2009

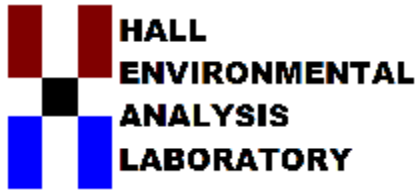
Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (continued)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Appendix I, Part 258, 40 CFR
toluene	108-88-3	8260B	0.75	0.001	0.375	0.5625	mg/L	y
1,1,1-trichloroethane	71-55-6	8260B	0.06	0.005	0.03	0.045	mg/L	y
1,1,2-trichloroethane	79-00-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
trichloroethylene (TCE)	79-01-6	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
trichlorofluoromethane	75-69-4	8260B	-	0.01	0.0195	-	mg/L	y
1,2,3-trichloropropane	96-18-4	8260B	-	0.05	0.0975	-	mg/L	y
vinyl acetate	108-05-4	8260B	-	0.0004	0.00078	-	mg/L	y
vinyl chloride	75-01-4	8260B	0.001	0.0004	0.0005	0.00075	mg/L	y
xylenes	1330-20-7	8260B	0.62	0.0015	0.31	0.465	mg/L	y
ammonia as (N)	N/A	SM 4500 NH3	-	0.5	-	-	mg/L	y
nitrate (as N)	N/A	300.0	10	1.0	5.0	-	mg/L	n
chloride	16887-00-6	300.0	250	5.0	187.5	7.5	mg/L	n
sulfate	14808-79-8	300.0	250	5.0	187.5	250	mg/L	n
total dissolved solids	N/A	SM 2540C	500	5.0	-	250	mg/L	n
carbonate alkalinity	3812-32-6	SM 2320B	-	10	-	-	mg/L	n
bicarbonate alkalinity	71-52-3	SM 2320B	-	10	-	-	mg/L	n
total phenolics	N/A	9067	0.005	0.0025	0.0025	0.00375	mg/L	n
total organic carbon	N/A	9060	-	1	-	-	mg/L	n
barium (total)	7440-39-3	6010B	1	0.01	0.5	-	mg/L	n
beryllium (total)	7440-41-7	6010B	0.004	0.002	0.002	0.75	mg/L	y
cadmium (total)	7440-43-9	6010B	0.005	0.002	0.0025	0.003	mg/L	y
calcium (total)	7440-70-2	6010B	-	1	-	0.00375	mg/L	y
chromium (total)	7440-47-3	6010B	0.05	0.006	0.025	-	mg/L	n
cobalt (total)	7440-48-4	6010B	0.05	0.006	0.025	0.0375	mg/L	y
copper (total)	7440-50-8	6010B	1	0.006	0.5	0.75	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (concluded)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Appendix I, Part 258, 40 CFR
iron (total)	7439-89-6	6010B	0.3	0.1	0.225	0.3	mg/L	n
lead (total)	7439-92-1	6010B	0.05	0.005	0.025	0.0375	mg/L	y
magnesium (total)	7439-95-4	6010B	-	1	-	-	mg/L	n
manganese (total)	7439-96-5	6010B	0.05	0.03	0.0375	0.05	mg/L	n
nickel (total)	7440-02-0	6010B	0.2	0.01	0.1	0.15	mg/L	y
potassium (total)	7440-09-7	6010B	-	1	-	-	mg/L	n
silver (total)	7440-22-4	6010B	0.05	0.005	0.025	0.0375	mg/L	y
sodium (total)	7440-23-5	6010B	-	1	-	-	mg/L	n
vanadium (total)	7440-62-2	6010B	-	0.05	-	-	mg/L	n
zinc (total)	7440-66-6	6010B	5	0.02	2.5	3.75	mg/L	y
antimony (total)	7440-36-0	6020	0.006	0.001	0.003	0.0045	mg/L	y
arsenic (total)	7440-38-2	6020	0.01	0.004	0.005	0.0075	mg/L	y
selenium (total)	7782-49-2	6020	0.05	0.001	0.025	0.0375	mg/L	y
thallium (total)	7440-28-0	6020	0.002	0.001	0.001	0.0015	mg/L	y
pH	N/A	SM4500	6.5-8.5	+/- 0.1	-	-	S.U.	n
specific conductance	N/A	120.1	-	+/- 25	-	-	µS/cm	n
temperature	N/A	field	-	+/- 0.5	-	-	°F	n
water level elevation	N/A	field	-	+/- 0.01	-	-	ft	n

GWPS - ground water protection standard
 PQL - practical quantitation limit
 AML - assessment monitoring level
 CAL - corrective action level
 mg/L - milligrams per liter
 µS/cm - microSiemens per centimeter
 S.U. - standard pH units
 °F - degrees Fahrenheit
 ft - feet



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

January 07, 2019

Luis Guerra

City of Las Cruces

PO Box 20000

Las Cruces, NM 88004

TEL: (575) 528-3635

FAX (575) 528-3513

RE: CLC Foothills Landfill Closure Monitoring Wells

OrderNo.: 1812891

Dear Luis Guerra:

Hall Environmental Analysis Laboratory received 2 sample(s) on 12/14/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1812891

Date Reported: 1/7/2019

CLIENT: City of Las Cruces

Client Sample ID: CLC MW#6

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/13/2018 9:53:00 AM

Lab ID: 1812891-001

Matrix: AQUEOUS

Received Date: 12/14/2018 8:47:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	12/18/2018 7:05:05 AM	42091
1,2-Dibromoethane	ND	0.0096		µg/L	1	12/18/2018 7:05:05 AM	42091
EPA METHOD 9060 TOC							Analyst: CLP
Total Organic Carbon	ND	1.0		mg/L	1	12/20/2018 1:33:16 AM	R56479
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	12	0.50		mg/L	1	12/28/2018 1:35:06 PM	R56648
Sulfate	46	0.50		mg/L	1	12/28/2018 1:35:06 PM	R56648
Nitrate+Nitrite as N	3.7	1.0		mg/L	5	12/28/2018 8:13:11 PM	R56648
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	400	5.0		µmhos/c	1	12/17/2018 5:15:35 PM	R56422
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	122.5	20.00		mg/L Ca	1	12/17/2018 5:15:35 PM	R56422
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	12/17/2018 5:15:35 PM	R56422
Total Alkalinity (as CaCO3)	122.5	20.00		mg/L Ca	1	12/17/2018 5:15:35 PM	R56422
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	266	20.0		mg/L	1	12/21/2018 4:33:00 PM	42233
SM 4500 NH3: AMMONIA							Analyst: OG
Nitrogen, Ammonia	ND	1.0		mg/L	1	12/28/2018 12:30:00 PM	R56667
SM4500-H+B / 9040C: PH							Analyst: JRR
pH	7.87		H	pH units	1	12/17/2018 5:15:35 PM	R56422
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.055	0.0020		mg/L	1	12/27/2018 5:51:13 PM	42159
Beryllium	ND	0.0020		mg/L	1	12/27/2018 5:51:13 PM	42159
Cadmium	ND	0.0020		mg/L	1	12/27/2018 5:51:13 PM	42159
Calcium	38	1.0		mg/L	1	12/27/2018 5:51:13 PM	42159
Chromium	ND	0.0060		mg/L	1	12/27/2018 5:51:13 PM	42159
Cobalt	ND	0.0060		mg/L	1	12/27/2018 5:51:13 PM	42159
Copper	ND	0.0060		mg/L	1	12/27/2018 5:51:13 PM	42159
Iron	ND	0.020		mg/L	1	12/27/2018 5:51:13 PM	42159
Magnesium	4.5	1.0		mg/L	1	12/27/2018 5:51:13 PM	42159
Manganese	0.0024	0.0020		mg/L	1	12/27/2018 5:51:13 PM	42159
Nickel	ND	0.010		mg/L	1	12/27/2018 5:51:13 PM	42159
Potassium	2.3	1.0		mg/L	1	12/27/2018 5:51:13 PM	42159
Silver	ND	0.0050		mg/L	1	12/27/2018 5:51:13 PM	42159
Sodium	36	1.0		mg/L	1	12/27/2018 5:51:13 PM	42159

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1812891

Date Reported: 1/7/2019

CLIENT: City of Las Cruces

Client Sample ID: CLC MW#6

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/13/2018 9:53:00 AM

Lab ID: 1812891-001

Matrix: AQUEOUS

Received Date: 12/14/2018 8:47:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Vanadium	ND	0.050		mg/L	1	12/27/2018 5:51:13 PM	42159
Zinc	ND	0.010		mg/L	1	12/27/2018 5:51:13 PM	42159
200.8 ICPMS METALS:TOTAL							Analyst: DBK
Antimony	ND	0.0010		mg/L	1	12/21/2018 1:45:31 PM	42159
Arsenic	0.0018	0.0010		mg/L	1	12/21/2018 1:45:31 PM	42159
Lead	ND	0.00050		mg/L	1	12/21/2018 1:45:31 PM	42159
Selenium	0.0015	0.0010		mg/L	1	12/21/2018 1:45:31 PM	42159
Thallium	ND	0.00050		mg/L	1	12/21/2018 1:45:31 PM	42159
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
Benzene	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Toluene	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Ethylbenzene	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Acetone	ND	10		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Bromodichloromethane	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Bromoform	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Bromomethane	ND	2.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
2-Butanone	ND	10		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Carbon disulfide	ND	10		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Carbon Tetrachloride	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Chlorobenzene	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Chloroethane	ND	2.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Chloroform	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Chloromethane	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
cis-1,2-DCE	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Dibromochloromethane	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Dibromomethane	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Dichlorodifluoromethane	2.0	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
1,1-Dichloroethane	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
1,1-Dichloroethene	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
1,2-Dichloropropane	ND	0.50		µg/L	1	12/20/2018 2:08:12 PM	LF56506
2-Hexanone	ND	10		µg/L	1	12/20/2018 2:08:12 PM	LF56506
4-Methyl-2-pentanone	ND	10		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Methylene Chloride	ND	2.5		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Styrene	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1812891

Date Reported: 1/7/2019

CLIENT: City of Las Cruces

Client Sample ID: CLC MW#6

Project: CLC Foothills Landfill Closure Monitori

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Received Date: 12/14/2018 8:47:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Tetrachloroethene (PCE)	5.9	0.50		µg/L	1	12/20/2018 2:08:12 PM	LF56506
trans-1,2-DCE	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Trichlorofluoromethane	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
1,2,3-Trichloropropane	ND	1.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Vinyl chloride	ND	0.40		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Xylenes, Total	ND	2.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Acrylonitrile	ND	10		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Bromochloromethane	ND	2.0		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Iodomethane	ND	10		µg/L	1	12/20/2018 2:08:12 PM	LF56506
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Vinyl acetate	ND	10		µg/L	1	12/20/2018 2:08:12 PM	LF56506
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	1	12/20/2018 2:08:12 PM	LF56506
Surr: 4-Bromofluorobenzene	98.2	70-130		%Rec	1	12/20/2018 2:08:12 PM	LF56506
Surr: Dibromofluoromethane	107	70-130		%Rec	1	12/20/2018 2:08:12 PM	LF56506
Surr: Toluene-d8	99.8	70-130		%Rec	1	12/20/2018 2:08:12 PM	LF56506
TOTAL PHENOLICS BY SW-846 9067							Analyst: CLP
Phenolics	ND	2.5		µg/L	1	1/7/2019	42458

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1812891

Date Reported: 1/7/2019

CLIENT: City of Las Cruces

Client Sample ID: CLC MW#5

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/13/2018 11:50:00 AM

Lab ID: 1812891-002

Matrix: AQUEOUS

Received Date: 12/14/2018 8:47:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	12/18/2018 7:20:05 AM	42091
1,2-Dibromoethane	ND	0.0095		µg/L	1	12/18/2018 7:20:05 AM	42091
EPA METHOD 9060 TOC							Analyst: CLP
Total Organic Carbon	ND	1.0		mg/L	1	12/20/2018 1:49:45 AM	R56479
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	27	10		mg/L	20	12/28/2018 1:47:25 PM	R56648
Sulfate	46	10		mg/L	20	12/28/2018 1:47:25 PM	R56648
Nitrate+Nitrite as N	5.1	1.0		mg/L	5	12/28/2018 8:26:03 PM	R56648
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	470	5.0		µmhos/c	1	12/17/2018 5:25:37 PM	R56422
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	104.7	20.00		mg/L Ca	1	12/17/2018 5:25:37 PM	R56422
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	12/17/2018 5:25:37 PM	R56422
Total Alkalinity (as CaCO3)	104.7	20.00		mg/L Ca	1	12/17/2018 5:25:37 PM	R56422
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	301	20.0		mg/L	1	12/21/2018 4:33:00 PM	42233
SM 4500 NH3: AMMONIA							Analyst: OG
Nitrogen, Ammonia	ND	1.0		mg/L	1	12/28/2018 12:30:00 PM	R56667
SM4500-H+B / 9040C: PH							Analyst: JRR
pH	7.97		H	pH units	1	12/17/2018 5:25:37 PM	R56422
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.062	0.0020		mg/L	1	12/27/2018 5:55:49 PM	42159
Beryllium	ND	0.0020		mg/L	1	12/27/2018 5:55:49 PM	42159
Cadmium	ND	0.0020		mg/L	1	12/27/2018 5:55:49 PM	42159
Calcium	37	1.0		mg/L	1	12/27/2018 5:55:49 PM	42159
Chromium	ND	0.0060		mg/L	1	12/27/2018 5:55:49 PM	42159
Cobalt	ND	0.0060		mg/L	1	12/27/2018 5:55:49 PM	42159
Copper	ND	0.0060		mg/L	1	12/27/2018 5:55:49 PM	42159
Iron	ND	0.020		mg/L	1	12/27/2018 5:55:49 PM	42159
Magnesium	4.9	1.0		mg/L	1	12/27/2018 5:55:49 PM	42159
Manganese	ND	0.0020		mg/L	1	12/27/2018 5:55:49 PM	42159
Nickel	ND	0.010		mg/L	1	12/27/2018 5:55:49 PM	42159
Potassium	2.4	1.0		mg/L	1	12/27/2018 5:55:49 PM	42159
Silver	ND	0.0050		mg/L	1	12/27/2018 5:55:49 PM	42159
Sodium	45	1.0		mg/L	1	12/27/2018 5:55:49 PM	42159

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1812891

Date Reported: 1/7/2019

CLIENT: City of Las Cruces

Client Sample ID: CLC MW#5

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/13/2018 11:50:00 AM

Lab ID: 1812891-002

Matrix: AQUEOUS

Received Date: 12/14/2018 8:47:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Vanadium	ND	0.050		mg/L	1	12/27/2018 5:55:49 PM	42159
Zinc	ND	0.010		mg/L	1	12/27/2018 5:55:49 PM	42159
200.8 ICPMS METALS:TOTAL							Analyst: DBK
Antimony	ND	0.0010		mg/L	1	12/21/2018 3:37:07 PM	42159
Arsenic	0.0024	0.0010		mg/L	1	12/21/2018 3:37:07 PM	42159
Lead	ND	0.00050		mg/L	1	12/21/2018 3:37:07 PM	42159
Selenium	ND	0.0010		mg/L	1	12/21/2018 3:37:07 PM	42159
Thallium	ND	0.00050		mg/L	1	12/21/2018 3:37:07 PM	42159
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
Benzene	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Toluene	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Ethylbenzene	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Acetone	ND	10		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Bromodichloromethane	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Bromoform	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Bromomethane	ND	2.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
2-Butanone	ND	10		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Carbon disulfide	ND	10		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Carbon Tetrachloride	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Chlorobenzene	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Chloroethane	ND	2.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Chloroform	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Chloromethane	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
cis-1,2-DCE	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Dibromochloromethane	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Dibromomethane	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Dichlorodifluoromethane	1.3	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
1,1-Dichloroethane	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
1,1-Dichloroethene	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
1,2-Dichloropropane	ND	0.50		µg/L	1	12/20/2018 3:36:11 PM	LF56506
2-Hexanone	ND	10		µg/L	1	12/20/2018 3:36:11 PM	LF56506
4-Methyl-2-pentanone	ND	10		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Methylene Chloride	ND	2.5		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Styrene	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
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	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1812891

Date Reported: 1/7/2019

CLIENT: City of Las Cruces

Client Sample ID: CLC MW#5

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/13/2018 11:50:00 AM

Lab ID: 1812891-002

Matrix: AQUEOUS

Received Date: 12/14/2018 8:47:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Tetrachloroethene (PCE)	5.1	0.50		µg/L	1	12/20/2018 3:36:11 PM	LF56506
trans-1,2-DCE	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Trichlorofluoromethane	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
1,2,3-Trichloropropane	ND	1.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Vinyl chloride	ND	0.40		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Xylenes, Total	ND	2.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Acrylonitrile	ND	10		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Bromochloromethane	ND	2.0		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Iodomethane	ND	10		µg/L	1	12/20/2018 3:36:11 PM	LF56506
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Vinyl acetate	ND	10		µg/L	1	12/20/2018 3:36:11 PM	LF56506
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	1	12/20/2018 3:36:11 PM	LF56506
Surr: 4-Bromofluorobenzene	96.1	70-130		%Rec	1	12/20/2018 3:36:11 PM	LF56506
Surr: Dibromofluoromethane	104	70-130		%Rec	1	12/20/2018 3:36:11 PM	LF56506
Surr: Toluene-d8	98.4	70-130		%Rec	1	12/20/2018 3:36:11 PM	LF56506
TOTAL PHENOLICS BY SW-846 9067							Analyst: CLP
Phenolics	ND	2.5		µg/L	1	1/7/2019	42458

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812891

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID	MB-42159	SampType:	MBLK	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID:	42159	RunNo:	56532					
Prep Date:	12/17/2018	Analysis Date:	12/21/2018	SeqNo:	1890797	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID	LLLCS-42159	SampType:	LCSLL	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID:	42159	RunNo:	56532					
Prep Date:	12/17/2018	Analysis Date:	12/21/2018	SeqNo:	1890799	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	97.0	50	150			
Beryllium	0.0021	0.0020	0.002000	0	104	50	150			
Cadmium	0.0021	0.0020	0.002000	0	103	50	150			
Calcium	ND	1.0	0.5000	0	102	50	150			
Chromium	0.0070	0.0060	0.006000	0	117	50	150			
Cobalt	0.0061	0.0060	0.006000	0	102	50	150			
Copper	ND	0.0060	0.006000	0	99.9	50	150			
Iron	ND	0.020	0.02000	0	91.1	50	150			
Magnesium	ND	1.0	0.5000	0	104	50	150			
Manganese	0.0023	0.0020	0.002000	0	117	50	150			
Nickel	ND	0.010	0.005000	0	67.1	50	150			
Potassium	ND	1.0	0.5000	0	113	50	150			
Silver	0.0052	0.0050	0.005000	0	105	50	150			
Sodium	ND	1.0	0.5000	0	111	50	150			
Vanadium	ND	0.050	0.01000	0	101	50	150			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812891

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID LCS-42159		SampType: LCS			TestCode: EPA Method 200.7: Total Metals					
Client ID: LCSW		Batch ID: 42159			RunNo: 56532					
Prep Date: 12/17/2018		Analysis Date: 12/21/2018			SeqNo: 1890801		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.7	85	115			
Beryllium	0.51	0.0020	0.5000	0	102	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.7	85	115			
Calcium	51	1.0	50.00	0	101	85	115			
Chromium	0.49	0.0060	0.5000	0	98.1	85	115			
Cobalt	0.47	0.0060	0.5000	0	94.7	85	115			
Copper	0.50	0.0060	0.5000	0	99.2	85	115			
Iron	0.49	0.020	0.5000	0	98.7	85	115			
Magnesium	50	1.0	50.00	0	101	85	115			
Manganese	0.48	0.0020	0.5000	0	96.5	85	115			
Nickel	0.48	0.010	0.5000	0	96.7	85	115			
Potassium	50	1.0	50.00	0	99.9	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	49	1.0	50.00	0	98.2	85	115			
Vanadium	0.50	0.050	0.5000	0	99.1	85	115			
Zinc	0.49	0.010	0.5000	0	98.1	85	115			

Sample ID LLCS-42159		SampType: LCSLL			TestCode: EPA Method 200.7: Total Metals					
Client ID: BatchQC		Batch ID: 42159			RunNo: 56532					
Prep Date: 12/17/2018		Analysis Date: 12/21/2018			SeqNo: 1890803		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010	0.005000	0	159	50	150			S

Sample ID MB-42159		SampType: MBLK			TestCode: EPA Method 200.7: Total Metals					
Client ID: PBW		Batch ID: 42159			RunNo: 56636					
Prep Date: 12/17/2018		Analysis Date: 12/27/2018			SeqNo: 1894750		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010								

Sample ID LCS-42159		SampType: LCS			TestCode: EPA Method 200.7: Total Metals					
Client ID: LCSW		Batch ID: 42159			RunNo: 56636					
Prep Date: 12/17/2018		Analysis Date: 12/27/2018			SeqNo: 1894752		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.50	0.010	0.5000	0	100	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812891

07-Jan-19

Client: City of Las Cruces

Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID	LLLCS-42159	SampType:	LCSLL	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID:	42159	RunNo:	56636					
Prep Date:	12/17/2018	Analysis Date:	12/27/2018	SeqNo:	1894753	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010	0.005000	0	172	50	150			S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812891

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID	MB-42159	SampType:	MBLK	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID:	42159	RunNo:	56484					
Prep Date:	12/17/2018	Analysis Date:	12/19/2018	SeqNo:	1889235	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Thallium	ND	0.00050								

Sample ID	MSLLCS-42159	SampType:	LCSLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID:	42159	RunNo:	56484					
Prep Date:	12/17/2018	Analysis Date:	12/19/2018	SeqNo:	1889237	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.0010	0.0010	0.001000	0	105	50	150			
Arsenic	0.0010	0.0010	0.001000	0	100	50	150			
Lead	ND	0.00050	0.0005000	0	95.9	50	150			
Selenium	ND	0.0010	0.001000	0	95.1	50	150			
Thallium	ND	0.00050	0.0005000	0	92.3	50	150			

Sample ID	MSLCS-42159	SampType:	LCS	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	LCSW	Batch ID:	42159	RunNo:	56484					
Prep Date:	12/17/2018	Analysis Date:	12/19/2018	SeqNo:	1889239	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.027	0.0010	0.02500	0	106	85	115			
Arsenic	0.025	0.0010	0.02500	0	98.1	85	115			
Lead	0.012	0.00050	0.01250	0	94.2	85	115			
Selenium	0.023	0.0010	0.02500	0	93.8	85	115			
Thallium	0.012	0.00050	0.01250	0	93.7	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812891

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID MB	SampType: mblk		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R56648		RunNo: 56648							
Prep Date:	Analysis Date: 12/28/2018		SeqNo: 1896624		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: lcs		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R56648		RunNo: 56648							
Prep Date:	Analysis Date: 12/28/2018		SeqNo: 1896625		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	96.9	90	110			
Sulfate	9.7	0.50	10.00	0	97.3	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	99.7	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812891

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID MB-42091	SampType: MBLK		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: PBW	Batch ID: 42091		RunNo: 56419							
Prep Date: 12/17/2018	Analysis Date: 12/17/2018		SeqNo: 1886325	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	0.020								
1,2-Dibromoethane	ND	0.010								

Sample ID LCS-42091	SampType: LCS		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: LCSW	Batch ID: 42091		RunNo: 56419							
Prep Date: 12/17/2018	Analysis Date: 12/17/2018		SeqNo: 1886327	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.099	0.020	0.1000	0	99.2	70	130			
1,2-Dibromoethane	0.088	0.010	0.1000	0	88.2	70	130			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812891

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID	rb	SampType:	MBLK		TestCode:	EPA Method 8260B: Volatiles, Table I				
Client ID:	PBW	Batch ID:	LF56506		RunNo:	56506				
Prep Date:		Analysis Date:	12/20/2018		SeqNo:	1889871	Units:	µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
Acetone	ND	10								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	2.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	0.50								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	2.5								
Styrene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
Tetrachloroethene (PCE)	ND	0.50								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	1.0								
Vinyl chloride	ND	0.40								

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812891

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID rb	SampType: MBLK		TestCode: EPA Method 8260B: Volatiles, Table I							
Client ID: PBW	Batch ID: LF56506		RunNo: 56506							
Prep Date:	Analysis Date: 12/20/2018		SeqNo: 1889871		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	ND	2.0								
Acrylonitrile	ND	10								
Bromochloromethane	ND	2.0								
Iodomethane	ND	10								
trans-1,4-Dichloro-2-butene	ND	10								
Vinyl acetate	ND	10								
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		94.2	70	130			
Surr: Dibromofluoromethane	10		10.00		105	70	130			
Surr: Toluene-d8	10		10.00		99.5	70	130			

Sample ID 100ng lcs	SampType: LCS		TestCode: EPA Method 8260B: Volatiles, Table I							
Client ID: LCSW	Batch ID: LF56506		RunNo: 56506							
Prep Date:	Analysis Date: 12/20/2018		SeqNo: 1889872		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.4	70	130			
Toluene	19	1.0	20.00	0	95.7	70	130			
Chlorobenzene	19	1.0	20.00	0	93.2	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	100	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	92.3	70	130			
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.3	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.5	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.7		10.00		97.5	70	130			

Sample ID 1812891-001a ms	SampType: MS		TestCode: EPA Method 8260B: Volatiles, Table I							
Client ID: CLC MW#6	Batch ID: LF56506		RunNo: 56506							
Prep Date:	Analysis Date: 12/20/2018		SeqNo: 1889874		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	100	70	130			
Toluene	20	1.0	20.00	0	98.6	70	130			
Chlorobenzene	20	1.0	20.00	0	98.5	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	110	67.6	130			
Trichloroethene (TCE)	20	1.0	20.00	0.4562	99.0	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		95.5	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	10		10.00		99.7	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812891

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID	1812891-001a msd	SampType:	MSD	TestCode:	EPA Method 8260B: Volatiles, Table I					
Client ID:	CLC MW#6	Batch ID:	LF56506	RunNo:	56506					
Prep Date:		Analysis Date:	12/20/2018	SeqNo:	1889875	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.9	70	130	3.23	20	
Toluene	19	1.0	20.00	0	96.4	70	130	2.28	20	
Chlorobenzene	19	1.0	20.00	0	95.3	70	130	3.28	20	
1,1-Dichloroethene	22	1.0	20.00	0	109	67.6	130	1.17	20	
Trichloroethene (TCE)	19	1.0	20.00	0.4562	94.9	70	130	4.11	20	
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.7		10.00		97.4	70	130	0	0	
Surr: Dibromofluoromethane	10		10.00		103	70	130	0	0	
Surr: Toluene-d8	9.7		10.00		96.6	70	130	0	0	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812891

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID MB	SampType: MBLK		TestCode: EPA Method 9060 TOC							
Client ID: PBW	Batch ID: R56479		RunNo: 56479							
Prep Date:	Analysis Date: 12/19/2018		SeqNo: 1888640		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	1.0								

Sample ID LCS ST9060-18020	SampType: LCS		TestCode: EPA Method 9060 TOC							
Client ID: LCSW	Batch ID: R56479		RunNo: 56479							
Prep Date:	Analysis Date: 12/19/2018		SeqNo: 1888641		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	5.2	1.0	4.850	0	108	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812891

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID	MB-42458	SampType:	MBLK	TestCode:	Total Phenolics by SW-846 9067					
Client ID:	PBW	Batch ID:	42458	RunNo:	56797					
Prep Date:	1/7/2019	Analysis Date:	1/7/2019	SeqNo:	1901066	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	ND	2.5								

Sample ID	LCS-42458	SampType:	LCS	TestCode:	Total Phenolics by SW-846 9067					
Client ID:	LCSW	Batch ID:	42458	RunNo:	56797					
Prep Date:	1/7/2019	Analysis Date:	1/7/2019	SeqNo:	1901067	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	18	2.5	20.00	0	87.6	53.3	138			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812891

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID	lcs-1 99.0uS eC		SampType: LCS	TestCode: SM2510B: Specific Conductance						
Client ID:	LCSW		Batch ID: R56422	RunNo: 56422						
Prep Date:			Analysis Date: 12/17/2018	SeqNo: 1886455	Units: µmhos/cm					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	100	5.0	99.00	0	105	80	120			

Sample ID	lcs-2 99.0uS eC		SampType: LCS	TestCode: SM2510B: Specific Conductance						
Client ID:	LCSW		Batch ID: R56422	RunNo: 56422						
Prep Date:			Analysis Date: 12/17/2018	SeqNo: 1886481	Units: µmhos/cm					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	110	5.0	99.00	0	108	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812891

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID MB	SampType: MBLK		TestCode: SM 4500 NH3: Ammonia							
Client ID: PBW	Batch ID: R56667		RunNo: 56667							
Prep Date:	Analysis Date: 12/28/2018		SeqNo: 1896350		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	1.0								

Sample ID LCS	SampType: LCS		TestCode: SM 4500 NH3: Ammonia							
Client ID: LCSW	Batch ID: R56667		RunNo: 56667							
Prep Date:	Analysis Date: 12/28/2018		SeqNo: 1896351		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	9.8	1.0	10.00	0	98.0	80	120			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812891

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID	mb-1 alk	SampType:	MBLK	TestCode:	SM2320B: Alkalinity					
Client ID:	PBW	Batch ID:	R56422	RunNo:	56422					
Prep Date:		Analysis Date:	12/17/2018	SeqNo:	1886490	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID	ics-1 alk	SampType:	LCS	TestCode:	SM2320B: Alkalinity					
Client ID:	LCSW	Batch ID:	R56422	RunNo:	56422					
Prep Date:		Analysis Date:	12/17/2018	SeqNo:	1886491	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	77.28	20.00	80.00	0	96.6	90	110			

Sample ID	mb-2 alk	SampType:	MBLK	TestCode:	SM2320B: Alkalinity					
Client ID:	PBW	Batch ID:	R56422	RunNo:	56422					
Prep Date:		Analysis Date:	12/17/2018	SeqNo:	1886516	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID	ics-2 alk	SampType:	LCS	TestCode:	SM2320B: Alkalinity					
Client ID:	LCSW	Batch ID:	R56422	RunNo:	56422					
Prep Date:		Analysis Date:	12/17/2018	SeqNo:	1886517	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	77.72	20.00	80.00	0	97.2	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812891

07-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID MB-42233	SampType: MBLK		TestCode: SM2540C MOD: Total Dissolved Solids							
Client ID: PBW	Batch ID: 42233		RunNo: 56539							
Prep Date: 12/20/2018	Analysis Date: 12/21/2018		SeqNo: 1891136		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID LCS-42233	SampType: LCS		TestCode: SM2540C MOD: Total Dissolved Solids							
Client ID: LCSW	Batch ID: 42233		RunNo: 56539							
Prep Date: 12/20/2018	Analysis Date: 12/21/2018		SeqNo: 1891137		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1000	20.0	1000	0	100	80	120			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

Sample Log-In Check List

Client Name: **City of Las Cruces**

Work Order Number: **1812891**

RcptNo: 1

Received By: **Victoria Zellar** 12/14/2018 8:47:00 AM

Victoria Zellar

Completed By: **Erin Melendrez** 12/14/2018 2:40:21 PM

EM

Reviewed By: *12/14/18*
LB: JAB 12/14/18

Chain of Custody

1. Is Chain of Custody complete? Yes No Not Present
 2. How was the sample delivered? FedEx

Log In

3. Was an attempt made to cool the samples? Yes No NA
 4. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
 5. Sample(s) in proper container(s)? Yes No
 6. Sufficient sample volume for indicated test(s)? Yes No
 7. Are samples (except VOA and ONG) properly preserved? Yes No
 8. Was preservative added to bottles? Yes No NA
 9. VOA vials have zero headspace? Yes No No VOA Vials
 10. Were any sample containers received broken? Yes No
 11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes No
 12. Are matrices correctly identified on Chain of Custody? Yes No
 13. Is it clear what analyses were requested? Yes No
 14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes No

of preserved bottles checked for pH: 6
 Adjusted? (2) > 10 unless noted
 Checked by: JAB 12/14/18

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes No NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

16. Additional remarks:

17. Cooler Information

Cooler No.	Temp °C	Condition	Seal Intact	Seal No.	Seal Date	Signed By
1	2.3	Good	Yes			

October 12, 2009

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
acetone	67-64-1	8260B	-	0.01	0.0195	-	mg/L	y
acrylonitrile	107-13-1	8260B	-	0.1	0.195	-	mg/L	y
benzene	71-43-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
bromochloromethane	74-97-5	8260B	-	0.001	0.00195	-	mg/L	y
bromodichloromethane	75-27-4	8260B	-	0.005	0.00975	-	mg/L	y
bromoform	75-25-2	8260B	-	0.015	0.02925	-	mg/L	y
carbon disulfide	75-15-0	8260B	-	0.001	0.00195	-	mg/L	y
carbon tetrachloride	56-23-5	8260B	0.005	0.002	0.0025	-	mg/L	y
chlorobenzene	108-90-7	8260B	0.1	0.005	0.05	0.00375	mg/L	y
chloroethane	75-00-3	8260B	-	0.01	0.0195	0.075	mg/L	y
chloroform	67-66-3	8260B	0.1	0.005	0.05	-	mg/L	y
dibromochloromethane	124-48-1	8260B	-	0.005	0.00975	0.75	mg/L	y
1,2-dibromo-3-chloropropane	96-12-8	504.1	0.0002	0.0001	0.0001	-	mg/L	y
1,2-dichlorobenzene	95-50-1	8260B	0.06	0.01	0.03	0.00015	mg/L	y
1,3-dichlorobenzene	541-73-1	8260B	-	0.01	0.0195	0.045	mg/L	y
1,4-dichlorobenzene	106-46-7	8260B	0.075	0.015	0.0375	-	mg/L	n
trans-1,4-dichloro-2-butene	110-57-6	8260B	-	0.001	0.00195	0.5625	mg/L	y
dichlorodifluoromethane	75-71-8	8260B	-	0.005	0.00975	-	mg/L	y
1,1-dichloroethane	75-34-3	8260B	0.025	0.005	0.0125	-	mg/L	n
1,2-dichloroethane (EDC)	107-06-2	8260B	0.005	0.001	0.0025	0.01875	mg/L	y
						0.00375	mg/L	y

October 12, 2009

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (continued)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
1,1-dichloroethylene (1,1-DCE)	75-35-4	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
cis-1,2-dichloroethylene	156-59-2	8260B	0.07	0.005	0.035	0.0525	mg/L	y
trans-1,2- dichloroethylene	156-60-5	8260B	0.1	0.005	0.05	0.075	mg/L	y
1,2-dichloropropane	78-87-5	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y
cis-1,3-dichloropropene	10061-01-5	8260B	-	0.02	0.039	-	mg/L	y
trans-1,3- dichloropropene	10061-02-6	8260B	-	0.01	0.0195	-	mg/L	y
ethylbenzene	100-41-4	8260B	0.7	0.01	0.35	0.525	mg/L	y
ethylene dibromide (EDB)	106-93-4	504.1	0.00005	0.000025	0.000025	0.000038	mg/L	y
2-hexanone	591-78-6	8260B	-	0.04	0.078	-	mg/L	y
methyl bromide	74-83-9	8260B	-	0.01	0.0195	-	mg/L	y
methyl chloride	74-87-3	8260B	-	0.001	0.00195	-	mg/L	y
methyl ethyl ketone	78-93-3	8260B	-	0.01	0.0195	-	mg/L	y
methyl iodide	74-88-4	8260B	-	0.05	0.0975	-	mg/L	y
4-methyl-2-pentanone	108-10-1	8260B	-	0.001	0.00195	-	mg/L	y
methylene bromide	74-95-3	8260B	-	0.001	0.00195	-	mg/L	y
methylene chloride	74-87-3	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
styrene	100-42-5	8260B	0.1	0.001	0.05	0.075	mg/L	y
1,1,1,2- tetrachloroethane	630-20-6	8260B	-	0.001	0.00195	-	mg/L	y
1,1,2,2- tetrachloroethane	79-34-5	8260B	0.01	0.005	0.005	0.0075	mg/L	y
tetrachloroethylene (PCE)	127-18-4	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y

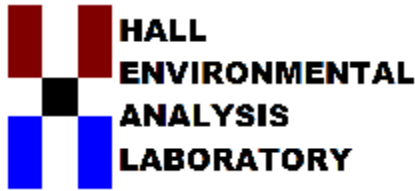
October 12, 2009

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (continued)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
toluene	108-88-3	8260B	0.75	0.001	0.375	0.5625	mg/L	y
1,1,1-trichloroethane	71-55-6	8260B	0.06	0.005	0.03	0.045	mg/L	y
1,1,2-trichloroethane	79-00-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
trichloroethylene (TCE)	79-01-6	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
trichlorofluoromethane	75-69-4	8260B	-	0.01	0.0195	-	mg/L	y
1,2,3-trichloropropane	96-18-4	8260B	-	0.05	0.0975	-	mg/L	y
vinyl acetate	108-05-4	8260B	-	0.0004	0.00078	-	mg/L	y
vinyl chloride	75-01-4	8260B	0.001	0.0004	0.0005	0.00075	mg/L	y
xylenes	1330-20-7	8260B	0.62	0.0015	0.31	0.465	mg/L	y
ammonia as (N)	N/A	SM 4500 NH3	-	0.5	-	-	mg/L	y
nitrate (as N)	N/A	300.0	10	1.0	5.0	-	mg/L	n
chloride	16887-00-6	300.0	250	5.0	187.5	7.5	mg/L	n
sulfate	14808-79-8	300.0	250	5.0	187.5	250	mg/L	n
total dissolved solids	N/A	SM 2540C	500	5.0	-	250	mg/L	n
carbonate alkalinity	3812-32-6	SM 2320B	-	10	-	-	mg/L	n
bicarbonate alkalinity	71-52-3	SM 2320B	-	10	-	-	mg/L	n
total phenolics	N/A	9067	0.005	0.0025	0.0025	-	mg/L	n
total organic carbon	N/A	9060	-	1	-	0.00375	mg/L	n
barium (total)	7440-39-3	6010B	1	0.01	0.5	-	mg/L	n
beryllium (total)	7440-41-7	6010B	0.004	0.002	0.002	0.75	mg/L	y
cadmium (total)	7440-43-9	6010B	0.005	0.002	0.0025	0.003	mg/L	y
calcium (total)	7440-70-2	6010B	-	1	-	0.00375	mg/L	y
chromium (total)	7440-47-3	6010B	0.05	0.006	0.025	-	mg/L	y
cobalt (total)	7440-48-4	6010B	0.05	0.006	0.025	0.0375	mg/L	n
copper (total)	7440-50-8	6010B	1	0.006	0.5	0.0375	mg/L	y
						0.75	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MWV-1 through MW-7, Las Cruces, New Mexico (concluded)

parameters	CAS no.	method	GWFS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
iron (total)	7439-89-6	6010B	0.3	0.1	0.225	0.3	mg/L	n
lead (total)	7439-92-1	6010B	0.05	0.005	0.025	0.0375	mg/L	y
magnesium (total)	7439-95-4	6010B	-	1	-	-	mg/L	n
manganese (total)	7439-96-5	6010B	0.05	0.03	0.0375	0.05	mg/L	n
nickel (total)	7440-02-0	6010B	0.2	0.01	0.1	0.15	mg/L	n
potassium (total)	7440-09-7	6010B	-	1	-	-	mg/L	y
silver (total)	7440-22-4	6010B	0.05	0.005	0.025	0.0375	mg/L	n
sodium (total)	7440-23-5	6010B	-	1	-	-	mg/L	y
vanadium (total)	7440-62-2	6010B	-	0.05	-	-	mg/L	n
zinc (total)	7440-66-6	6010B	5	0.02	2.5	3.75	mg/L	y
antimony (total)	7440-36-0	6020	0.006	0.001	0.003	0.0045	mg/L	y
arsenic (total)	7440-38-2	6020	0.01	0.004	0.005	0.0075	mg/L	y
selenium (total)	7782-49-2	6020	0.05	0.001	0.025	0.0375	mg/L	y
thallium (total)	7440-28-0	6020	0.002	0.001	0.001	0.0015	mg/L	y
pH	N/A	SM4500	6.5-8.5	+/- 0.1	-	-	mg/L	y
specific conductance	N/A	120.1	-	+/- 25	-	-	S.U.	n
temperature	N/A	field	-	+/- 0.5	-	-	µS/cm	n
water level elevation	N/A	field	-	+/- 0.01	-	-	°F	n
GWFS - ground water protection standard							ft	n
PQL - practical quantitation limit								n
AML - assessment monitoring level								n
CAL - corrective action level								n
mg/L - milligrams per liter								n
µS/cm - microSiemens per centimeter								n
S.U. - standard pH units								n
°F - degrees Fahrenheit								n
ft - feet								n



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

January 15, 2019

Luis Guerra
City of Las Cruces
PO Box 20000
Las Cruces, NM 88004
TEL: (575) 528-3635
FAX (575) 528-3513

RE: CLC Foothills Landfill Closure Monitoring Wells

OrderNo.: 1812A70

Dear Luis Guerra:

Hall Environmental Analysis Laboratory received 2 sample(s) on 12/19/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1812A70

Date Reported: 1/15/2019

CLIENT: City of Las Cruces

Client Sample ID: CLC MW#7

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/18/2018 11:21:00 AM

Lab ID: 1812A70-001

Matrix: AQUEOUS

Received Date: 12/19/2018 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	12/20/2018 2:14:46 PM	42218
1,2-Dibromoethane	ND	0.0095		µg/L	1	12/20/2018 2:14:46 PM	42218
EPA METHOD 9060 TOC							Analyst: CLP
Total Organic Carbon	ND	1.0		mg/L	1	12/20/2018 2:06:15 AM	R56479
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	19	10		mg/L	20	12/19/2018 4:52:49 PM	R56485
Nitrogen, Nitrate (As N)	1.0	0.10		mg/L	1	12/19/2018 4:39:58 PM	R56485
Sulfate	95	10		mg/L	20	12/19/2018 4:52:49 PM	R56485
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	610	5.0		µmhos/c	1	12/26/2018 12:57:01 PM	R56584
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	176.4	20.00		mg/L Ca	1	12/26/2018 12:57:01 PM	R56584
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	12/26/2018 12:57:01 PM	R56584
Total Alkalinity (as CaCO3)	176.4	20.00		mg/L Ca	1	12/26/2018 12:57:01 PM	R56584
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	399	20.0		mg/L	1	12/22/2018 10:24:00 PM	42275
SM 4500 NH3: AMMONIA							Analyst: CJS
Nitrogen, Ammonia	ND	1.0		mg/L	1	12/31/2018 3:10:00 PM	R56711
SM4500-H+B / 9040C: PH							Analyst: JRR
pH	7.54		H	pH units	1	12/26/2018 12:57:01 PM	R56584
EPA METHOD 6020: TOTAL METALS							Analyst: DBK
Antimony	ND	0.0010		mg/L	1	12/28/2018 5:38:06 PM	42316
Arsenic	ND	0.0010		mg/L	1	12/28/2018 5:38:06 PM	42316
Barium	0.063	0.0010		mg/L	1	12/27/2018 5:07:17 PM	42316
Beryllium	ND	0.0010		mg/L	1	12/28/2018 5:38:06 PM	42316
Cadmium	ND	0.0010		mg/L	1	12/27/2018 5:07:17 PM	42316
Calcium	81	1.0		mg/L	1	12/27/2018 5:07:17 PM	42316
Chromium	ND	0.0010		mg/L	1	12/27/2018 5:07:17 PM	42316
Cobalt	ND	0.0010		mg/L	1	12/28/2018 5:38:06 PM	42316
Copper	0.0021	0.0010		mg/L	1	12/28/2018 5:38:06 PM	42316
Iron	ND	0.020		mg/L	1	1/2/2019 12:46:07 PM	42377
Lead	ND	0.0010		mg/L	1	12/27/2018 5:07:17 PM	42316
Magnesium	9.5	1.0		mg/L	1	12/27/2018 5:07:17 PM	42316
Manganese	0.0052	0.0050		mg/L	5	1/2/2019 1:12:07 PM	42377
Nickel	ND	0.0010		mg/L	1	1/2/2019 12:46:07 PM	42377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1812A70

Date Reported: 1/15/2019

CLIENT: City of Las Cruces

Client Sample ID: CLC MW#7

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/18/2018 11:21:00 AM

Lab ID: 1812A70-001

Matrix: AQUEOUS

Received Date: 12/19/2018 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 6020: TOTAL METALS							Analyst: DBK
Potassium	2.6	1.0		mg/L	1	12/27/2018 5:07:17 PM	42316
Selenium	0.0012	0.0010		mg/L	1	12/28/2018 5:38:06 PM	42316
Silver	ND	0.0010		mg/L	1	12/27/2018 5:07:17 PM	42316
Sodium	31	1.0		mg/L	1	12/27/2018 5:07:17 PM	42316
Thallium	ND	0.0010		mg/L	1	12/27/2018 5:07:17 PM	42316
Vanadium	0.0024	0.0010		mg/L	1	12/27/2018 5:07:17 PM	42316
Zinc	ND	0.010		mg/L	1	1/2/2019 12:46:07 PM	42377
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
Benzene	ND	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
Toluene	ND	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
Ethylbenzene	ND	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
Acetone	ND	10		µg/L	1	12/20/2018 4:05:14 PM	LF56506
Bromodichloromethane	ND	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
Bromoform	ND	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
Bromomethane	ND	2.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
2-Butanone	ND	10		µg/L	1	12/20/2018 4:05:14 PM	LF56506
Carbon disulfide	ND	10		µg/L	1	12/20/2018 4:05:14 PM	LF56506
Carbon Tetrachloride	ND	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
Chlorobenzene	ND	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
Chloroethane	ND	2.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
Chloroform	ND	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
Chloromethane	ND	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
cis-1,2-DCE	2.9	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
Dibromochloromethane	ND	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
Dibromomethane	ND	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
Dichlorodifluoromethane	3.5	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
1,1-Dichloroethane	ND	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
1,1-Dichloroethene	ND	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
1,2-Dichloropropane	ND	0.50		µg/L	1	12/20/2018 4:05:14 PM	LF56506
2-Hexanone	ND	10		µg/L	1	12/20/2018 4:05:14 PM	LF56506
4-Methyl-2-pentanone	ND	10		µg/L	1	12/20/2018 4:05:14 PM	LF56506
Methylene Chloride	ND	2.5		µg/L	1	12/20/2018 4:05:14 PM	LF56506
Styrene	ND	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1812A70

Date Reported: 1/15/2019

CLIENT: City of Las Cruces

Client Sample ID: CLC MW#7

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/18/2018 11:21:00 AM

Lab ID: 1812A70-001

Matrix: AQUEOUS

Received Date: 12/19/2018 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
Tetrachloroethene (PCE)	14	0.50		µg/L	1	12/20/2018 4:05:14 PM	LF56506
trans-1,2-DCE	ND	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
Trichloroethene (TCE)	3.2	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
Trichlorofluoromethane	2.2	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
1,2,3-Trichloropropane	ND	1.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
Vinyl chloride	0.41	0.40		µg/L	1	12/20/2018 4:05:14 PM	LF56506
Xylenes, Total	ND	2.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
Acrylonitrile	ND	10		µg/L	1	12/20/2018 4:05:14 PM	LF56506
Bromochloromethane	ND	2.0		µg/L	1	12/20/2018 4:05:14 PM	LF56506
Iodomethane	ND	10		µg/L	1	12/20/2018 4:05:14 PM	LF56506
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/20/2018 4:05:14 PM	LF56506
Vinyl acetate	ND	10		µg/L	1	12/20/2018 4:05:14 PM	LF56506
Surr: 1,2-Dichloroethane-d4	98.1	70-130		%Rec	1	12/20/2018 4:05:14 PM	LF56506
Surr: 4-Bromofluorobenzene	95.7	70-130		%Rec	1	12/20/2018 4:05:14 PM	LF56506
Surr: Dibromofluoromethane	105	70-130		%Rec	1	12/20/2018 4:05:14 PM	LF56506
Surr: Toluene-d8	101	70-130		%Rec	1	12/20/2018 4:05:14 PM	LF56506
TOTAL PHENOLICS BY SW-846 9067							Analyst: CLP
Phenolics	ND	2.5		µg/L	1	1/11/2019	42566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1812A70

Date Reported: 1/15/2019

CLIENT: City of Las Cruces

Client Sample ID: CLC MW#8

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/18/2018 1:05:00 PM

Lab ID: 1812A70-002

Matrix: AQUEOUS

Received Date: 12/19/2018 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	12/20/2018 2:29:50 PM	42218
1,2-Dibromoethane	ND	0.0096		µg/L	1	12/20/2018 2:29:50 PM	42218
EPA METHOD 9060 TOC							Analyst: CLP
Total Organic Carbon	6.0	1.0		mg/L	1	12/20/2018 2:22:45 AM	R56479
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	8.1	0.50		mg/L	1	12/19/2018 5:31:25 PM	R56485
Nitrogen, Nitrate (As N)	0.92	0.10		mg/L	1	12/19/2018 5:31:25 PM	R56485
Sulfate	32	0.50		mg/L	1	12/19/2018 5:31:25 PM	R56485
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	310	5.0		µmhos/c	1	12/26/2018 1:15:51 PM	R56584
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	105.2	20.00		mg/L Ca	1	12/26/2018 1:15:51 PM	R56584
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	12/26/2018 1:15:51 PM	R56584
Total Alkalinity (as CaCO3)	105.2	20.00		mg/L Ca	1	12/26/2018 1:15:51 PM	R56584
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	191	20.0		mg/L	1	12/22/2018 10:24:00 PM	42275
SM 4500 NH3: AMMONIA							Analyst: CJS
Nitrogen, Ammonia	ND	1.0		mg/L	1	12/31/2018 3:10:00 PM	R56711
SM4500-H+B / 9040C: PH							Analyst: JRR
pH	7.82		H	pH units	1	12/26/2018 1:15:51 PM	R56584
EPA METHOD 6020: TOTAL METALS							Analyst: DBK
Antimony	ND	0.0010		mg/L	1	12/28/2018 5:42:27 PM	42316
Arsenic	0.0014	0.0010		mg/L	1	12/28/2018 5:42:27 PM	42316
Barium	0.022	0.0010		mg/L	1	12/27/2018 5:11:38 PM	42316
Beryllium	ND	0.0010		mg/L	1	12/28/2018 5:42:27 PM	42316
Cadmium	ND	0.0010		mg/L	1	12/27/2018 5:11:38 PM	42316
Calcium	25	1.0		mg/L	1	12/27/2018 5:11:38 PM	42316
Chromium	ND	0.0010		mg/L	1	12/27/2018 5:11:38 PM	42316
Cobalt	ND	0.0010		mg/L	1	12/28/2018 5:42:27 PM	42316
Copper	ND	0.0010		mg/L	1	12/28/2018 5:42:27 PM	42316
Iron	ND	0.020		mg/L	1	1/2/2019 12:52:38 PM	42377
Lead	ND	0.0010		mg/L	1	12/27/2018 5:11:38 PM	42316
Magnesium	1.6	1.0		mg/L	1	12/27/2018 5:11:38 PM	42316
Manganese	ND	0.0050		mg/L	5	1/2/2019 1:20:51 PM	42377
Nickel	0.0024	0.0010		mg/L	1	1/2/2019 12:52:38 PM	42377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1812A70

Date Reported: 1/15/2019

CLIENT: City of Las Cruces

Client Sample ID: CLC MW#8

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/18/2018 1:05:00 PM

Lab ID: 1812A70-002

Matrix: AQUEOUS

Received Date: 12/19/2018 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 6020: TOTAL METALS							Analyst: DBK
Potassium	2.3	1.0		mg/L	1	12/27/2018 5:11:38 PM	42316
Selenium	ND	0.0010		mg/L	1	12/28/2018 5:42:27 PM	42316
Silver	ND	0.0010		mg/L	1	12/27/2018 5:11:38 PM	42316
Sodium	33	1.0		mg/L	1	12/27/2018 5:11:38 PM	42316
Thallium	ND	0.0010		mg/L	1	12/27/2018 5:11:38 PM	42316
Vanadium	0.0057	0.0010		mg/L	1	12/27/2018 5:11:38 PM	42316
Zinc	ND	0.010		mg/L	1	1/2/2019 12:52:38 PM	42377

EPA METHOD 8260B: VOLATILES, TABLE I

Analyst: **DJF**

Benzene	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
Toluene	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
Ethylbenzene	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
Acetone	ND	10		µg/L	1	12/20/2018 4:34:05 PM	LF56506
Bromodichloromethane	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
Bromoform	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
Bromomethane	ND	2.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
2-Butanone	ND	10		µg/L	1	12/20/2018 4:34:05 PM	LF56506
Carbon disulfide	ND	10		µg/L	1	12/20/2018 4:34:05 PM	LF56506
Carbon Tetrachloride	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
Chlorobenzene	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
Chloroethane	ND	2.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
Chloroform	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
Chloromethane	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
cis-1,2-DCE	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
Dibromochloromethane	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
Dibromomethane	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
Dichlorodifluoromethane	2.2	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
1,1-Dichloroethane	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
1,1-Dichloroethene	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
1,2-Dichloropropane	ND	0.50		µg/L	1	12/20/2018 4:34:05 PM	LF56506
2-Hexanone	ND	10		µg/L	1	12/20/2018 4:34:05 PM	LF56506
4-Methyl-2-pentanone	ND	10		µg/L	1	12/20/2018 4:34:05 PM	LF56506
Methylene Chloride	ND	2.5		µg/L	1	12/20/2018 4:34:05 PM	LF56506
Styrene	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1812A70

Date Reported: 1/15/2019

CLIENT: City of Las Cruces

Client Sample ID: CLC MW#8

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/18/2018 1:05:00 PM

Lab ID: 1812A70-002

Matrix: AQUEOUS

Received Date: 12/19/2018 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
Tetrachloroethene (PCE)	4.6	0.50		µg/L	1	12/20/2018 4:34:05 PM	LF56506
trans-1,2-DCE	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
Trichlorofluoromethane	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
1,2,3-Trichloropropane	ND	1.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
Vinyl chloride	ND	0.40		µg/L	1	12/20/2018 4:34:05 PM	LF56506
Xylenes, Total	ND	2.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
Acrylonitrile	ND	10		µg/L	1	12/20/2018 4:34:05 PM	LF56506
Bromochloromethane	ND	2.0		µg/L	1	12/20/2018 4:34:05 PM	LF56506
Iodomethane	ND	10		µg/L	1	12/20/2018 4:34:05 PM	LF56506
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/20/2018 4:34:05 PM	LF56506
Vinyl acetate	ND	10		µg/L	1	12/20/2018 4:34:05 PM	LF56506
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	1	12/20/2018 4:34:05 PM	LF56506
Surr: 4-Bromofluorobenzene	95.8	70-130		%Rec	1	12/20/2018 4:34:05 PM	LF56506
Surr: Dibromofluoromethane	105	70-130		%Rec	1	12/20/2018 4:34:05 PM	LF56506
Surr: Toluene-d8	99.0	70-130		%Rec	1	12/20/2018 4:34:05 PM	LF56506
TOTAL PHENOLICS BY SW-846 9067							Analyst: CLP
Phenolics	ND	2.5		µg/L	1	1/11/2019	42566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812A70

15-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID MB	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBW	Batch ID: R56485	RunNo: 56485								
Prep Date:	Analysis Date: 12/19/2018	SeqNo: 1889272			Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	ND	0.50								
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID LCS	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSW	Batch ID: R56485	RunNo: 56485								
Prep Date:	Analysis Date: 12/19/2018	SeqNo: 1889274			Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	4.9	0.50	5.000	0	98.9	90	110			
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	103	90	110			
Sulfate	10	0.50	10.00	0	100	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812A70

15-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID MB-42218	SampType: MBLK		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: PBW	Batch ID: 42218		RunNo: 56512							
Prep Date: 12/20/2018	Analysis Date: 12/20/2018		SeqNo: 1890039		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	0.020								
1,2-Dibromoethane	ND	0.010								

Sample ID LCS-42218	SampType: LCS		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: LCSW	Batch ID: 42218		RunNo: 56512							
Prep Date: 12/20/2018	Analysis Date: 12/20/2018		SeqNo: 1890040		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.10	0.020	0.1000	0	99.5	70	130			
1,2-Dibromoethane	0.088	0.010	0.1000	0	87.8	70	130			

Sample ID LCSD-42218	SampType: LCSD		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: LCSS02	Batch ID: 42218		RunNo: 56512							
Prep Date: 12/20/2018	Analysis Date: 12/20/2018		SeqNo: 1890041		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.10	0.020	0.1000	0	99.7	70	130	0.239	20	
1,2-Dibromoethane	0.088	0.010	0.1000	0	88.2	70	130	0.405	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812A70

15-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID MB-42316	SampType: MBLK	TestCode: EPA Method 6020: Total Metals								
Client ID: PBW	Batch ID: 42316	RunNo: 56633								
Prep Date: 12/26/2018	Analysis Date: 12/27/2018	SeqNo: 1894716	Units: mg/L							

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0010								
Cadmium	ND	0.0010								
Calcium	ND	1.0								
Chromium	ND	0.0010								
Lead	ND	0.0010								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Silver	ND	0.0010								
Sodium	ND	1.0								
Thallium	ND	0.0010								
Vanadium	ND	0.0010								

Sample ID LLCS-42316	SampType: LCSLL	TestCode: EPA Method 6020: Total Metals								
Client ID: BatchQC	Batch ID: 42316	RunNo: 56633								
Prep Date: 12/26/2018	Analysis Date: 12/27/2018	SeqNo: 1894717	Units: mg/L							

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0010	0.0010	0.001000	0	101	70	130			
Cadmium	0.0010	0.0010	0.001000	0	104	70	130			
Calcium	1.0	1.0	1.000	0	100	70	130			
Chromium	ND	0.0010	0.001000	0	97.4	70	130			
Lead	0.0011	0.0010	0.001000	0	109	70	130			
Magnesium	ND	1.0	1.000	0	95.6	70	130			
Potassium	1.1	1.0	1.000	0	107	70	130			
Silver	ND	0.0010	0.001000	0	89.8	70	130			
Sodium	ND	1.0	1.000	0	87.3	70	130			
Thallium	ND	0.0010	0.001000	0	99.8	70	130			
Vanadium	ND	0.0010	0.001000	0	91.4	70	130			

Sample ID LCS-42316	SampType: LCS	TestCode: EPA Method 6020: Total Metals								
Client ID: LCSW	Batch ID: 42316	RunNo: 56633								
Prep Date: 12/26/2018	Analysis Date: 12/27/2018	SeqNo: 1894718	Units: mg/L							

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.048	0.0010	0.05000	0	96.8	80	120			
Cadmium	0.049	0.0010	0.05000	0	97.4	80	120			
Calcium	50	1.0	50.00	0	99.9	80	120			
Chromium	0.051	0.0010	0.05000	0	101	80	120			
Lead	0.050	0.0010	0.05000	0	101	80	120			
Magnesium	46	1.0	50.00	0	92.7	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812A70

15-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID	LCS-42316	SampType:	LCS	TestCode:	EPA Method 6020: Total Metals					
Client ID:	LCSW	Batch ID:	42316	RunNo:	56633					
Prep Date:	12/26/2018	Analysis Date:	12/27/2018	SeqNo:	1894718	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	47	1.0	50.00	0	94.5	80	120			
Silver	0.048	0.0010	0.05000	0	96.2	80	120			
Sodium	42	1.0	50.00	0	83.3	80	120			
Thallium	0.050	0.0010	0.05000	0	99.4	80	120			
Vanadium	0.049	0.0010	0.05000	0	98.8	80	120			

Sample ID	MB-42316	SampType:	MBLK	TestCode:	EPA Method 6020: Total Metals					
Client ID:	PBW	Batch ID:	42316	RunNo:	56670					
Prep Date:	12/26/2018	Analysis Date:	12/28/2018	SeqNo:	1896480	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Beryllium	ND	0.0010								
Cobalt	ND	0.0010								
Copper	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	LLLCS-42316	SampType:	LCSLL	TestCode:	EPA Method 6020: Total Metals					
Client ID:	BatchQC	Batch ID:	42316	RunNo:	56670					
Prep Date:	12/26/2018	Analysis Date:	12/28/2018	SeqNo:	1896483	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.0011	0.0010	0.001000	0	107	70	130			
Arsenic	ND	0.0010	0.001000	0	98.0	70	130			
Beryllium	0.0010	0.0010	0.001000	0	101	70	130			
Cobalt	0.0010	0.0010	0.001000	0	101	70	130			
Copper	0.0011	0.0010	0.001000	0	113	70	130			
Selenium	0.0010	0.0010	0.001000	0	102	70	130			

Sample ID	LCS-42316	SampType:	LCS	TestCode:	EPA Method 6020: Total Metals					
Client ID:	LCSW	Batch ID:	42316	RunNo:	56670					
Prep Date:	12/26/2018	Analysis Date:	12/28/2018	SeqNo:	1896485	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.054	0.0010	0.05000	0	108	80	120			
Arsenic	0.050	0.0010	0.05000	0	99.5	80	120			
Beryllium	0.051	0.0010	0.05000	0	102	80	120			
Cobalt	0.051	0.0010	0.05000	0	102	80	120			
Copper	0.052	0.0010	0.05000	0	104	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812A70

15-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID	LCS-42316	SampType:	LCS	TestCode:	EPA Method 6020: Total Metals					
Client ID:	LCSW	Batch ID:	42316	RunNo:	56670					
Prep Date:	12/26/2018	Analysis Date:	12/28/2018	SeqNo:	1896485	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.050	0.0010	0.05000	0	99.7	80	120			

Sample ID	MB-42377	SampType:	MBLK	TestCode:	EPA Method 6020: Total Metals					
Client ID:	PBW	Batch ID:	42377	RunNo:	56709					
Prep Date:	12/31/2018	Analysis Date:	1/2/2019	SeqNo:	1897757	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								
Manganese	ND	0.0010								
Nickel	ND	0.0010								
Zinc	ND	0.010								

Sample ID	LLCS-42377	SampType:	LCSLL	TestCode:	EPA Method 6020: Total Metals					
Client ID:	BatchQC	Batch ID:	42377	RunNo:	56709					
Prep Date:	12/31/2018	Analysis Date:	1/2/2019	SeqNo:	1897758	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.022	0.020	0.02000	0	109	70	130			
Manganese	0.0011	0.0010	0.001000	0	111	70	130			
Nickel	0.0010	0.0010	0.001000	0	105	70	130			
Zinc	0.013	0.010	0.01000	0	129	70	130			

Sample ID	LCS-42377	SampType:	LCS	TestCode:	EPA Method 6020: Total Metals					
Client ID:	LCSW	Batch ID:	42377	RunNo:	56709					
Prep Date:	12/31/2018	Analysis Date:	1/2/2019	SeqNo:	1897759	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	2.6	0.020	2.500	0	104	80	120			
Manganese	0.050	0.0010	0.05000	0	100	80	120			
Nickel	0.053	0.0010	0.05000	0	106	80	120			
Zinc	0.52	0.010	0.5000	0	103	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
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- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812A70

15-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles, Table I					
Client ID:	PBW	Batch ID:	LF56506	RunNo:	56506					
Prep Date:		Analysis Date:	12/20/2018	SeqNo:	1889871	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
Acetone	ND	10								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	2.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	0.50								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	2.5								
Styrene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
Tetrachloroethene (PCE)	ND	0.50								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	1.0								
Vinyl chloride	ND	0.40								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812A70

15-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles, Table I					
Client ID:	PBW	Batch ID:	LF56506	RunNo:	56506					
Prep Date:		Analysis Date:	12/20/2018	SeqNo:	1889871	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	ND	2.0								
Acrylonitrile	ND	10								
Bromochloromethane	ND	2.0								
Iodomethane	ND	10								
trans-1,4-Dichloro-2-butene	ND	10								
Vinyl acetate	ND	10								
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		94.2	70	130			
Surr: Dibromofluoromethane	10		10.00		105	70	130			
Surr: Toluene-d8	10		10.00		99.5	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles, Table I					
Client ID:	LCSW	Batch ID:	LF56506	RunNo:	56506					
Prep Date:		Analysis Date:	12/20/2018	SeqNo:	1889872	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.4	70	130			
Toluene	19	1.0	20.00	0	95.7	70	130			
Chlorobenzene	19	1.0	20.00	0	93.2	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	100	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	92.3	70	130			
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.3	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.5	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.7		10.00		97.5	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812A70

15-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID MB	SampType: MBLK		TestCode: EPA Method 9060 TOC							
Client ID: PBW	Batch ID: R56479		RunNo: 56479							
Prep Date:	Analysis Date: 12/19/2018		SeqNo: 1888640		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	1.0								

Sample ID LCS ST9060-18020	SampType: LCS		TestCode: EPA Method 9060 TOC							
Client ID: LCSW	Batch ID: R56479		RunNo: 56479							
Prep Date:	Analysis Date: 12/19/2018		SeqNo: 1888641		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	5.2	1.0	4.850	0	108	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812A70

15-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID	MB-42566	SampType:	MBLK	TestCode:	Total Phenolics by SW-846 9067					
Client ID:	PBW	Batch ID:	42566	RunNo:	56942					
Prep Date:	1/11/2019	Analysis Date:	1/11/2019	SeqNo:	1905059	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	ND	2.5								

Sample ID	LCS-42566	SampType:	LCS	TestCode:	Total Phenolics by SW-846 9067					
Client ID:	LCSW	Batch ID:	42566	RunNo:	56942					
Prep Date:	1/11/2019	Analysis Date:	1/11/2019	SeqNo:	1905060	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	21	2.5	20.00	0	107	53.3	138			

Sample ID	LCSD-42566	SampType:	LCSD	TestCode:	Total Phenolics by SW-846 9067					
Client ID:	LCSS02	Batch ID:	42566	RunNo:	56942					
Prep Date:	1/11/2019	Analysis Date:	1/11/2019	SeqNo:	1905061	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	21	2.5	20.00	0	106	53.3	138	0.926	21	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812A70

15-Jan-19

Client: City of Las Cruces

Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID	Ics-1 99.0uS eC	SampType:	LCS	TestCode:	SM2510B: Specific Conductance					
Client ID:	LCSW	Batch ID:	R56584	RunNo:	56584					
Prep Date:		Analysis Date:	12/26/2018	SeqNo:	1894188	Units:	µmhos/cm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	99	5.0	99.00	0	99.7	80	120			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812A70

15-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID MB	SampType: MBLK		TestCode: SM 4500 NH3: Ammonia							
Client ID: PBW	Batch ID: R56711		RunNo: 56711							
Prep Date:	Analysis Date: 12/31/2018		SeqNo: 1897814		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	1.0								

Sample ID LCS	SampType: LCS		TestCode: SM 4500 NH3: Ammonia							
Client ID: LCSW	Batch ID: R56711		RunNo: 56711							
Prep Date:	Analysis Date: 12/31/2018		SeqNo: 1897815		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	10	1.0	10.00	0	101	80	120			

Sample ID 1812A70-001EMS	SampType: MS		TestCode: SM 4500 NH3: Ammonia							
Client ID: CLC MW#7	Batch ID: R56711		RunNo: 56711							
Prep Date:	Analysis Date: 12/31/2018		SeqNo: 1897819		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	10	1.0	10.00	0	102	75	125			

Sample ID 1812A70-001EMSD	SampType: MSD		TestCode: SM 4500 NH3: Ammonia							
Client ID: CLC MW#7	Batch ID: R56711		RunNo: 56711							
Prep Date:	Analysis Date: 12/31/2018		SeqNo: 1897820		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	10	1.0	10.00	0	102	75	125	0	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812A70

15-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID	mb-1 alk	SampType:	MBLK	TestCode:	SM2320B: Alkalinity					
Client ID:	PBW	Batch ID:	R56584	RunNo:	56584					
Prep Date:		Analysis Date:	12/26/2018	SeqNo:	1894233	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID	ics-1 alk	SampType:	LCS	TestCode:	SM2320B: Alkalinity					
Client ID:	LCSW	Batch ID:	R56584	RunNo:	56584					
Prep Date:		Analysis Date:	12/26/2018	SeqNo:	1894234	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.28	20.00	80.00	0	97.9	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812A70

15-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID	MB-42275	SampType:	MBLK	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	PBW	Batch ID:	42275	RunNo:	56556					
Prep Date:	12/21/2018	Analysis Date:	12/22/2018	SeqNo:	1892123	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	LCS-42275	SampType:	LCS	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	LCSW	Batch ID:	42275	RunNo:	56556					
Prep Date:	12/21/2018	Analysis Date:	12/22/2018	SeqNo:	1892124	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	989	20.0	1000	0	98.9	80	120			

Sample ID	1812A70-001EDUP	SampType:	DUP	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	CLC MW#7	Batch ID:	42275	RunNo:	56556					
Prep Date:	12/21/2018	Analysis Date:	12/22/2018	SeqNo:	1892126	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	394	20.0						1.26	5	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory
 4901 Hawkins NE
 Albuquerque, NM 87109
 TEL: 505-345-3975 FAX: 505-345-4107
 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: City of Las Cruces Work Order Number: 1812A70 RcptNo: 1

Received By: Victoria Zellar 12/19/2018 9:45:00 AM
 Completed By: Leah Baca 12/19/2018 11:41:56 AM
 Reviewed By: AT 12/19/18

Victoria Zellar

Leah Baca

Labeled by JAB 12/18

Chain of Custody

1. Is Chain of Custody complete? Yes No Not Present
 2. How was the sample delivered? FedEx

Log In

3. Was an attempt made to cool the samples? Yes No NA
 4. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
 5. Sample(s) in proper container(s)? Yes No
 6. Sufficient sample volume for indicated test(s)? Yes No
 7. Are samples (except VOA and ONG) properly preserved? Yes No
 8. Was preservative added to bottles? Yes No NA
 9. VOA vials have zero headspace? Yes No No VOA Vials
 10. Were any sample containers received broken? Yes No
 11. Does paperwork match bottle labels? Yes No
 (Note discrepancies on chain of custody)
 12. Are matrices correctly identified on Chain of Custody? Yes No
 13. Is it clear what analyses were requested? Yes No
 14. Were all holding times able to be met? Yes No
 (If no, notify customer for authorization.)

# of preserved bottles checked for pH:	<u>6</u>
(<u>2</u> or >12 unless noted)	
Adjusted?	<u>No</u>
Checked by:	<u>JAB 12/19/18</u>

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes No NA

Person Notified:	_____	Date:	_____
By Whom:	_____	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.9	Good	Yes			

October 12, 2009

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Appendix I, Part 258, 40 CFR
acetone	67-64-1	8260B	-	0.01	0.0195	-	mg/L	y
acrylonitrile	107-13-1	8260B	-	0.1	0.195	-	mg/L	y
benzene	71-43-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
bromochloromethane	74-97-5	8260B	-	0.001	0.00195	-	mg/L	y
bromodichloromethane	75-27-4	8260B	-	0.005	0.00975	-	mg/L	y
bromoform	75-25-2	8260B	-	0.015	0.02925	-	mg/L	y
carbon disulfide	75-15-0	8260B	-	0.001	0.00195	-	mg/L	y
carbon tetrachloride	56-23-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
chlorobenzene	108-90-7	8260B	0.1	0.005	0.05	0.075	mg/L	y
chloroethane	75-00-3	8260B	-	0.01	0.0195	-	mg/L	y
chloroform	67-66-3	8260B	0.1	0.005	0.05	0.75	mg/L	y
dibromochloromethane	124-48-1	8260B	-	0.005	0.00975	-	mg/L	y
1,2-dibromo-3-chloropropane	96-12-8	504.1	0.0002	0.0001	0.0001	0.00015	mg/L	y
1,2-dichlorobenzene	95-50-1	8260B	0.06	0.01	0.03	0.045	mg/L	y
1,3-dichlorobenzene	541-73-1	8260B	-	0.01	0.0195	-	mg/L	y
1,4-dichlorobenzene	106-46-7	8260B	0.075	0.015	0.0375	0.5625	mg/L	n
trans-1,4-dichloro-2-butene	110-57-6	8260B	-	0.001	0.00195	-	mg/L	y
dichlorodifluoromethane	75-71-8	8260B	-	0.005	0.00975	-	mg/L	y
1,1-dichloroethane	75-34-3	8260B	0.025	0.005	0.0125	0.01875	mg/L	n
1,2-dichloroethane (EDC)	107-06-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y

October 12, 2009

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (continued)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
1,1-dichloroethylene (1,1-DCE)	75-35-4	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
cis-1,2-dichloroethylene	156-59-2	8260B	0.07	0.005	0.035	0.0525	mg/L	y
trans-1,2-dichloroethylene	156-60-5	8260B	0.1	0.005	0.05	0.075	mg/L	y
1,2-dichloropropane	78-87-5	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y
cis-1,3-dichloropropene	10061-01-5	8260B	-	0.02	0.039	-	mg/L	y
trans-1,3-dichloropropene	10061-02-6	8260B	-	0.01	0.0195	-	mg/L	y
ethylbenzene	100-41-4	8260B	0.7	0.01	0.35	0.525	mg/L	y
ethylene dibromide (EDB)	106-93-4	504.1	0.00005	0.000025	0.000025	0.000038	mg/L	y
2-hexanone	591-78-6	8260B	-	0.04	0.078	-	mg/L	y
methyl bromide	74-83-9	8260B	-	0.01	0.0195	-	mg/L	y
methyl chloride	74-87-3	8260B	-	0.001	0.00195	-	mg/L	y
methyl ethyl ketone	78-93-3	8260B	-	0.01	0.0195	-	mg/L	y
methyl iodide	74-88-4	8260B	-	0.05	0.0975	-	mg/L	y
4-methyl-2-pentanone	108-10-1	8260B	-	0.001	0.00195	-	mg/L	y
methylene bromide	74-95-3	8260B	-	0.001	0.00195	-	mg/L	y
methylene chloride	74-87-3	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
styrene	100-42-5	8260B	0.1	0.001	0.05	0.075	mg/L	y
1,1,1,2-tetrachloroethane	630-20-6	8260B	-	0.001	0.00195	-	mg/L	y
1,1,2,2-tetrachloroethane	79-34-5	8260B	0.01	0.005	0.005	0.0075	mg/L	y
tetrachloroethylene (PCE)	127-18-4	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y

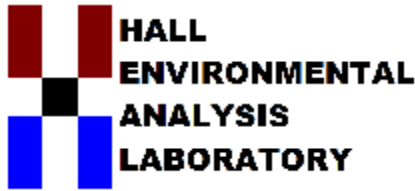
Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (continued)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
toluene	108-88-3	8260B	0.75	0.001	0.375	0.5625	mg/L	y
1,1,1-trichloroethane	71-55-6	8260B	0.06	0.005	0.03	0.045	mg/L	y
1,1,2-trichloroethane	79-00-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
trichloroethylene (TCE)	79-01-6	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
trichlorofluoromethane	75-69-4	8260B	-	0.01	0.0195	-	mg/L	y
1,2,3-trichloropropane	96-18-4	8260B	-	0.05	0.0975	-	mg/L	y
vinyl acetate	108-05-4	8260B	-	0.0004	0.00078	-	mg/L	y
vinyl chloride	75-01-4	8260B	0.001	0.0004	0.0005	-	mg/L	y
xylenes	1330-20-7	8260B	0.62	0.0015	0.31	0.465	mg/L	y
ammonia as (N)	N/A	SM 4500 NH3	-	0.5	-	-	mg/L	y
nitrate (as N)	N/A	300.0	10	1.0	5.0	-	mg/L	n
chloride	16887-00-6	300.0	250	5.0	187.5	7.5	mg/L	n
sulfate	14808-79-8	300.0	250	5.0	187.5	250	mg/L	n
total dissolved solids	N/A	SM 2540C	500	5.0	-	250	mg/L	n
carbonate alkalinity	3812-32-6	SM 2320B	-	10	-	-	mg/L	n
bicarbonate alkalinity	71-52-3	SM 2320B	-	10	-	-	mg/L	n
total phenolics	N/A	9067	0.005	0.0025	0.0025	-	mg/L	n
total organic carbon	N/A	9060	-	1	-	0.00375	mg/L	n
barium (total)	7440-39-3	6010B	1	0.01	0.5	-	mg/L	n
beryllium (total)	7440-41-7	6010B	0.004	0.002	0.002	0.75	mg/L	y
cadmium (total)	7440-43-9	6010B	0.005	0.002	0.0025	0.003	mg/L	y
calcium (total)	7440-70-2	6010B	-	1	-	0.00375	mg/L	y
chromium (total)	7440-47-3	6010B	0.05	0.006	0.025	-	mg/L	n
cobalt (total)	7440-48-4	6010B	0.05	0.006	0.025	0.0375	mg/L	y
copper (total)	7440-50-8	6010B	1	0.006	0.5	0.75	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (concluded)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	Included in Append I, Part 258, 40 CFR
iron (total)	7439-89-6	6010B	0.3	0.1	0.225	0.3	mg/L	n
lead (total)	7439-92-1	6010B	0.05	0.005	0.025	0.0375	mg/L	y
magnesium (total)	7439-95-4	6010B	-	1	-	-	mg/L	n
manganese (total)	7439-96-5	6010B	0.05	0.03	0.0375	0.05	mg/L	n
nickel (total)	7440-02-0	6010B	0.2	0.01	0.1	0.15	mg/L	y
potassium (total)	7440-09-7	6010B	-	1	-	-	mg/L	n
silver (total)	7440-22-4	6010B	0.05	0.005	0.025	0.0375	mg/L	y
sodium (total)	7440-23-5	6010B	-	1	-	-	mg/L	n
vanadium (total)	7440-62-2	6010B	-	0.05	-	-	mg/L	y
zinc (total)	7440-66-6	6010B	5	0.02	2.5	3.75	mg/L	y
antimony (total)	7440-36-0	6020	0.006	0.001	0.003	0.0045	mg/L	y
arsenic (total)	7440-38-2	6020	0.01	0.004	0.005	0.0075	mg/L	y
selenium (total)	7782-49-2	6020	0.05	0.001	0.025	0.0375	mg/L	y
thallium (total)	7440-28-0	6020	0.002	0.001	0.001	0.0015	mg/L	y
pH	N/A	SM4500	6.5-8.5	+/- 0.1	-	-	S.U.	n
specific conductance	N/A	120.1	-	+/- 25	-	-	µS/cm	n
temperature	N/A	field	-	+/- 0.5	-	-	°F	n
water level elevation	N/A	field	-	+/- 0.01	-	-	ft	n

GWPS - ground water protection standard
 PQL - practical quantitation limit
 AML - assessment monitoring level
 CAL - corrective action level
 mg/L - milligrams per liter
 µS/cm - microSiemens per centimeter
 S.U. - standard pH units
 °F - degrees Fahrenheit
 ft - feet



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

January 15, 2019

Luis Guerra

City of Las Cruces

PO Box 20000

Las Cruces, NM 88004

TEL: (575) 528-3635

FAX (575) 528-3513

RE: CLC Foothills Landfill Closure Monitoring Wells

OrderNo.: 1812D12

Dear Luis Guerra:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/21/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1812D12

Date Reported: 1/15/2019

CLIENT: City of Las Cruces

Client Sample ID: CLC MW#9

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/20/2018 10:25:00 AM

Lab ID: 1812D12-001

Matrix: AQUEOUS

Received Date: 12/21/2018 10:08:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	12/31/2018 12:24:54 PM	42369
1,2-Dibromoethane	ND	0.0095		µg/L	1	12/31/2018 12:24:54 PM	42369
EPA METHOD 9060 TOC							Analyst: CLP
Total Organic Carbon	1.1	1.0		mg/L	1	12/28/2018 5:36:25 PM	R56668
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	480	25	*	mg/L	50	12/31/2018 5:10:25 PM	R56702
Nitrogen, Nitrate (As N)	0.20	0.10		mg/L	1	12/21/2018 11:39:23 PM	R56535
Sulfate	120	10		mg/L	20	12/22/2018 12:16:35 AM	R56535
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	2400	5.0		µmhos/c	1	12/26/2018 3:04:07 PM	R56584
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	344.9	20.00		mg/L Ca	1	12/26/2018 3:04:07 PM	R56584
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	12/26/2018 3:04:07 PM	R56584
Total Alkalinity (as CaCO3)	344.9	20.00		mg/L Ca	1	12/26/2018 3:04:07 PM	R56584
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	1380	20.0	*	mg/L	1	12/29/2018 12:21:00 PM	42337
SM 4500 NH3: AMMONIA							Analyst: CJS
Nitrogen, Ammonia	ND	1.0		mg/L	1	12/31/2018 3:10:00 PM	R56711
SM4500-H+B / 9040C: PH							Analyst: JRR
pH	7.51		H	pH units	1	12/26/2018 3:04:07 PM	R56584
EPA METHOD 6020: TOTAL METALS							Analyst: DBK
Antimony	ND	0.0010		mg/L	1	12/28/2018 4:06:28 PM	42270
Arsenic	ND	0.0010		mg/L	1	12/28/2018 4:06:28 PM	42270
Barium	0.088	0.0010		mg/L	1	12/27/2018 4:14:59 PM	42270
Beryllium	ND	0.0010		mg/L	1	12/28/2018 4:06:28 PM	42270
Cadmium	ND	0.0010		mg/L	1	12/27/2018 4:14:59 PM	42270
Calcium	100	5.0		mg/L	5	12/28/2018 4:02:05 PM	42270
Chromium	0.067	0.0010		mg/L	1	12/27/2018 4:14:59 PM	42270
Cobalt	0.0025	0.0010		mg/L	1	12/28/2018 4:06:28 PM	42270
Copper	ND	0.0010		mg/L	1	12/28/2018 4:06:28 PM	42270
Iron	1.0	0.020		mg/L	1	12/28/2018 4:06:28 PM	42270
Lead	ND	0.0010		mg/L	1	12/27/2018 4:14:59 PM	42270
Magnesium	18	1.0		mg/L	1	12/27/2018 4:14:59 PM	42270
Manganese	0.037	0.0010		mg/L	1	1/2/2019 1:05:37 PM	42377
Nickel	0.17	0.0050		mg/L	5	1/2/2019 1:23:01 PM	42377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1812D12

Date Reported: 1/15/2019

CLIENT: City of Las Cruces

Client Sample ID: CLC MW#9

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/20/2018 10:25:00 AM

Lab ID: 1812D12-001

Matrix: AQUEOUS

Received Date: 12/21/2018 10:08:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 6020: TOTAL METALS							Analyst: DBK
Potassium	33	1.0		mg/L	1	12/27/2018 4:14:59 PM	42270
Selenium	ND	0.0010		mg/L	1	12/28/2018 4:06:28 PM	42270
Silver	ND	0.0010		mg/L	1	12/27/2018 4:14:59 PM	42270
Sodium	360	5.0		mg/L	5	12/28/2018 4:02:05 PM	42270
Thallium	ND	0.0010		mg/L	1	12/27/2018 4:14:59 PM	42270
Vanadium	0.0037	0.0010		mg/L	1	12/27/2018 4:14:59 PM	42270
Zinc	0.026	0.010		mg/L	1	12/28/2018 4:06:28 PM	42270
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
Benzene	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
Toluene	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
Ethylbenzene	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
Acetone	ND	10		µg/L	1	12/31/2018 3:03:06 PM	LF56695
Bromodichloromethane	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
Bromoform	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
Bromomethane	ND	2.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
2-Butanone	ND	10		µg/L	1	12/31/2018 3:03:06 PM	LF56695
Carbon disulfide	ND	10		µg/L	1	12/31/2018 3:03:06 PM	LF56695
Carbon Tetrachloride	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
Chlorobenzene	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
Chloroethane	ND	2.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
Chloroform	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
Chloromethane	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
cis-1,2-DCE	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
Dibromochloromethane	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
Dibromomethane	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
Dichlorodifluoromethane	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
1,1-Dichloroethane	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
1,1-Dichloroethene	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
1,2-Dichloropropane	ND	0.50		µg/L	1	12/31/2018 3:03:06 PM	LF56695
2-Hexanone	ND	10		µg/L	1	12/31/2018 3:03:06 PM	LF56695
4-Methyl-2-pentanone	ND	10		µg/L	1	12/31/2018 3:03:06 PM	LF56695
Methylene Chloride	ND	2.5		µg/L	1	12/31/2018 3:03:06 PM	LF56695
Styrene	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1812D12

Date Reported: 1/15/2019

CLIENT: City of Las Cruces

Client Sample ID: CLC MW#9

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/20/2018 10:25:00 AM

Lab ID: 1812D12-001

Matrix: AQUEOUS

Received Date: 12/21/2018 10:08:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
Tetrachloroethene (PCE)	ND	0.50		µg/L	1	12/31/2018 3:03:06 PM	LF56695
trans-1,2-DCE	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
Trichlorofluoromethane	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
1,2,3-Trichloropropane	ND	1.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
Vinyl chloride	ND	0.40		µg/L	1	12/31/2018 3:03:06 PM	LF56695
Xylenes, Total	ND	2.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
Acrylonitrile	ND	10		µg/L	1	12/31/2018 3:03:06 PM	LF56695
Bromochloromethane	ND	2.0		µg/L	1	12/31/2018 3:03:06 PM	LF56695
Iodomethane	ND	10		µg/L	1	12/31/2018 3:03:06 PM	LF56695
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/31/2018 3:03:06 PM	LF56695
Vinyl acetate	ND	10		µg/L	1	12/31/2018 3:03:06 PM	LF56695
Surr: 1,2-Dichloroethane-d4	107	70-130		%Rec	1	12/31/2018 3:03:06 PM	LF56695
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	12/31/2018 3:03:06 PM	LF56695
Surr: Dibromofluoromethane	113	70-130		%Rec	1	12/31/2018 3:03:06 PM	LF56695
Surr: Toluene-d8	104	70-130		%Rec	1	12/31/2018 3:03:06 PM	LF56695
TOTAL PHENOLICS BY SW-846 9067							Analyst: CLP
Phenolics	ND	2.5		µg/L	1	1/11/2019	42566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812D12

15-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID MB	SampType: mblk		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R56535		RunNo: 56535							
Prep Date:	Analysis Date: 12/21/2018		SeqNo: 1892391		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID LCS	SampType: lcs		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R56535		RunNo: 56535							
Prep Date:	Analysis Date: 12/21/2018		SeqNo: 1892392		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	2.4	0.10	2.500	0	97.5	90	110			
Sulfate	9.5	0.50	10.00	0	94.9	90	110			

Sample ID 1812D12-001EMS	SampType: ms		TestCode: EPA Method 300.0: Anions							
Client ID: CLC MW#9	Batch ID: R56535		RunNo: 56535							
Prep Date:	Analysis Date: 12/21/2018		SeqNo: 1892423		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0.1950	96.8	79.1	116			

Sample ID 1812D12-001EMSD	SampType: msd		TestCode: EPA Method 300.0: Anions							
Client ID: CLC MW#9	Batch ID: R56535		RunNo: 56535							
Prep Date:	Analysis Date: 12/22/2018		SeqNo: 1892424		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0.1950	93.1	79.1	116	3.62	20	

Sample ID MB	SampType: mblk		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R56702		RunNo: 56702							
Prep Date:	Analysis Date: 12/31/2018		SeqNo: 1897552		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID LCS	SampType: lcs		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R56702		RunNo: 56702							
Prep Date:	Analysis Date: 12/31/2018		SeqNo: 1897553		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.6	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812D12

15-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID MB-42369	SampType: MBLK		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: PBW	Batch ID: 42369		RunNo: 56694							
Prep Date: 12/31/2018	Analysis Date: 12/31/2018		SeqNo: 1897199		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	0.020								
1,2-Dibromoethane	ND	0.010								

Sample ID LCS-42369	SampType: LCS		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: LCSW	Batch ID: 42369		RunNo: 56694							
Prep Date: 12/31/2018	Analysis Date: 12/31/2018		SeqNo: 1897201		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.099	0.020	0.1000	0	99.3	70	130			
1,2-Dibromoethane	0.093	0.010	0.1000	0	92.8	70	130			

Sample ID LCSD-42369	SampType: LCSD		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: LCSS02	Batch ID: 42369		RunNo: 56694							
Prep Date: 12/31/2018	Analysis Date: 12/31/2018		SeqNo: 1897204		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.11	0.020	0.1000	0	109	70	130	9.60	20	
1,2-Dibromoethane	0.091	0.010	0.1000	0	90.8	70	130	2.18	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812D12

15-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID MB-42270	SampType: MBLK	TestCode: EPA Method 6020: Total Metals								
Client ID: PBW	Batch ID: 42270	RunNo: 56633								
Prep Date: 12/21/2018	Analysis Date: 12/27/2018	SeqNo: 1894698	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	ND	0.0010								
Cadmium	ND	0.0010								
Calcium	ND	1.0								
Chromium	ND	0.0010								
Lead	ND	0.0010								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Silver	ND	0.0010								
Sodium	ND	1.0								
Thallium	ND	0.0010								
Vanadium	ND	0.0010								

Sample ID LLCS-42270	SampType: LCSLL	TestCode: EPA Method 6020: Total Metals								
Client ID: BatchQC	Batch ID: 42270	RunNo: 56633								
Prep Date: 12/21/2018	Analysis Date: 12/27/2018	SeqNo: 1894699	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	ND	0.0010	0.001000	0	95.4	70	130			
Cadmium	ND	0.0010	0.001000	0	95.5	70	130			
Calcium	1.1	1.0	1.000	0	105	70	130			
Chromium	0.0011	0.0010	0.001000	0	105	70	130			
Lead	0.0010	0.0010	0.001000	0	105	70	130			
Magnesium	ND	1.0	1.000	0	88.3	70	130			
Potassium	ND	1.0	1.000	0	99.7	70	130			
Silver	ND	0.0010	0.001000	0	94.6	70	130			
Sodium	ND	1.0	1.000	0	74.0	70	130			
Thallium	0.0010	0.0010	0.001000	0	102	70	130			
Vanadium	0.0011	0.0010	0.001000	0	107	70	130			

Sample ID LCS-42270	SampType: LCS	TestCode: EPA Method 6020: Total Metals								
Client ID: LCSW	Batch ID: 42270	RunNo: 56633								
Prep Date: 12/21/2018	Analysis Date: 12/27/2018	SeqNo: 1894700	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	0.049	0.0010	0.05000	0	98.3	80	120			
Cadmium	0.047	0.0010	0.05000	0	94.5	80	120			
Calcium	49	1.0	50.00	0	97.8	80	120			
Chromium	0.048	0.0010	0.05000	0	96.3	80	120			
Lead	0.048	0.0010	0.05000	0	95.5	80	120			
Magnesium	45	1.0	50.00	0	89.9	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812D12

15-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID	LCS-42270		SampType:	LCS		TestCode:	EPA Method 6020: Total Metals				
Client ID:	LCSW		Batch ID:	42270		RunNo:	56633				
Prep Date:	12/21/2018	Analysis Date:	12/27/2018		SeqNo:	1894700	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Potassium	47	1.0	50.00	0	94.0	80	120				
Silver	0.047	0.0010	0.05000	0	94.2	80	120				
Sodium	42	1.0	50.00	0	83.6	80	120				
Thallium	0.048	0.0010	0.05000	0	95.9	80	120				
Vanadium	0.048	0.0010	0.05000	0	96.6	80	120				

Sample ID	LCS-42270		SampType:	LCS		TestCode:	EPA Method 6020: Total Metals				
Client ID:	LCSW		Batch ID:	42270		RunNo:	56670				
Prep Date:	12/21/2018	Analysis Date:	12/28/2018		SeqNo:	1896445	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Antimony	0.053	0.0010	0.05000	0	106	80	120				
Arsenic	0.049	0.0010	0.05000	0	98.7	80	120				
Beryllium	0.051	0.0010	0.05000	0	102	80	120				
Cobalt	0.051	0.0010	0.05000	0	102	80	120				
Copper	0.051	0.0010	0.05000	0	103	80	120				
Iron	2.5	0.020	2.500	0	101	80	120				
Selenium	0.048	0.0010	0.05000	0	97.0	80	120				
Zinc	0.52	0.010	0.5000	0	103	80	120				

Sample ID	MB-42270		SampType:	MBLK		TestCode:	EPA Method 6020: Total Metals				
Client ID:	PBW		Batch ID:	42270		RunNo:	56670				
Prep Date:	12/21/2018	Analysis Date:	12/28/2018		SeqNo:	1896476	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Antimony	ND	0.0010									
Arsenic	ND	0.0010									
Beryllium	ND	0.0010									
Cobalt	ND	0.0010									
Copper	ND	0.0010									
Iron	ND	0.020									
Selenium	ND	0.0010									
Zinc	ND	0.010									

Sample ID	LLCS-42270		SampType:	LCSLL		TestCode:	EPA Method 6020: Total Metals				
Client ID:	BatchQC		Batch ID:	42270		RunNo:	56670				
Prep Date:	12/21/2018	Analysis Date:	12/28/2018		SeqNo:	1896478	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Antimony	0.0011	0.0010	0.001000	0	105	70	130				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812D12

15-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID	LLLCS-42270	SampType:	LCSLL	TestCode:	EPA Method 6020: Total Metals					
Client ID:	BatchQC	Batch ID:	42270	RunNo:	56670					
Prep Date:	12/21/2018	Analysis Date:	12/28/2018	SeqNo:	1896478	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	95.8	70	130			
Beryllium	0.0010	0.0010	0.001000	0	102	70	130			
Cobalt	0.0010	0.0010	0.001000	0	102	70	130			
Copper	0.0011	0.0010	0.001000	0	107	70	130			
Iron	0.024	0.020	0.02000	0	119	70	130			
Selenium	0.0011	0.0010	0.001000	0	110	70	130			
Zinc	0.013	0.010	0.01000	0	127	70	130			

Sample ID	MB-42377	SampType:	MBLK	TestCode:	EPA Method 6020: Total Metals					
Client ID:	PBW	Batch ID:	42377	RunNo:	56709					
Prep Date:	12/31/2018	Analysis Date:	1/2/2019	SeqNo:	1897757	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	ND	0.0010								
Nickel	ND	0.0010								

Sample ID	LLLCS-42377	SampType:	LCSLL	TestCode:	EPA Method 6020: Total Metals					
Client ID:	BatchQC	Batch ID:	42377	RunNo:	56709					
Prep Date:	12/31/2018	Analysis Date:	1/2/2019	SeqNo:	1897758	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	0.0011	0.0010	0.001000	0	111	70	130			
Nickel	0.0010	0.0010	0.001000	0	105	70	130			

Sample ID	LCS-42377	SampType:	LCS	TestCode:	EPA Method 6020: Total Metals					
Client ID:	LCSW	Batch ID:	42377	RunNo:	56709					
Prep Date:	12/31/2018	Analysis Date:	1/2/2019	SeqNo:	1897759	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	0.050	0.0010	0.05000	0	100	80	120			
Nickel	0.053	0.0010	0.05000	0	106	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812D12

15-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles, Table I					
Client ID:	PBW	Batch ID:	LF56695	RunNo:	56695					
Prep Date:		Analysis Date:	12/31/2018	SeqNo:	1897254	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
Acetone	ND	10								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	2.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	0.50								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	2.5								
Styrene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
Tetrachloroethene (PCE)	ND	0.50								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	1.0								
Vinyl chloride	ND	0.40								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812D12

15-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID rb	SampType: MBLK		TestCode: EPA Method 8260B: Volatiles, Table I							
Client ID: PBW	Batch ID: LF56695		RunNo: 56695							
Prep Date:	Analysis Date: 12/31/2018		SeqNo: 1897254		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	ND	2.0								
Acrylonitrile	ND	10								
Bromochloromethane	ND	2.0								
Iodomethane	ND	10								
trans-1,4-Dichloro-2-butene	ND	10								
Vinyl acetate	ND	10								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.5	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		110	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.5	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID 100ng lcs	SampType: LCS		TestCode: EPA Method 8260B: Volatiles, Table I							
Client ID: LCSW	Batch ID: LF56695		RunNo: 56695							
Prep Date:	Analysis Date: 12/31/2018		SeqNo: 1897255		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	97.9	70	130			
Toluene	20	1.0	20.00	0	99.2	70	130			
Chlorobenzene	20	1.0	20.00	0	99.6	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	103	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	98.4	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.6	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	11		10.00		105	70	130			
Surr: Toluene-d8	9.9		10.00		99.1	70	130			

Sample ID 1812d12-001a ms	SampType: MS		TestCode: EPA Method 8260B: Volatiles, Table I							
Client ID: CLC MW#9	Batch ID: LF56695		RunNo: 56695							
Prep Date:	Analysis Date: 12/31/2018		SeqNo: 1897257		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.3	70	130			
Toluene	19	1.0	20.00	0	95.9	70	130			
Chlorobenzene	20	1.0	20.00	0	98.2	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	111	67.6	130			
Trichloroethene (TCE)	18	1.0	20.00	0	88.7	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130			
Surr: Dibromofluoromethane	11		10.00		105	70	130			
Surr: Toluene-d8	9.5		10.00		95.0	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812D12

15-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID	1812d12-001a msd	SampType:	MSD	TestCode:	EPA Method 8260B: Volatiles, Table I					
Client ID:	CLC MW#9	Batch ID:	LF56695	RunNo:	56695					
Prep Date:		Analysis Date:	12/31/2018	SeqNo:	1897258	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.7	70	130	3.77	20	
Toluene	19	1.0	20.00	0	96.0	70	130	0.180	20	
Chlorobenzene	19	1.0	20.00	0	96.6	70	130	1.66	20	
1,1-Dichloroethene	22	1.0	20.00	0	109	67.6	130	1.90	20	
Trichloroethene (TCE)	19	1.0	20.00	0	92.7	70	130	4.40	20	
Surr: 1,2-Dichloroethane-d4	11		10.00		109	70	130	0	0	
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130	0	0	
Surr: Dibromofluoromethane	11		10.00		115	70	130	0	0	
Surr: Toluene-d8	10		10.00		103	70	130	0	0	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812D12

15-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID MB	SampType: MBLK		TestCode: EPA Method 9060 TOC							
Client ID: PBW	Batch ID: R56668		RunNo: 56668							
Prep Date:	Analysis Date: 12/28/2018		SeqNo: 1896394		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	1.0								

Sample ID LCS ST9060-18020	SampType: LCS		TestCode: EPA Method 9060 TOC							
Client ID: LCSW	Batch ID: R56668		RunNo: 56668							
Prep Date:	Analysis Date: 12/28/2018		SeqNo: 1896395		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	5.2	1.0	4.850	0	106	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812D12

15-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID	MB-42566	SampType:	MBLK	TestCode:	Total Phenolics by SW-846 9067					
Client ID:	PBW	Batch ID:	42566	RunNo:	56942					
Prep Date:	1/11/2019	Analysis Date:	1/11/2019	SeqNo:	1905059	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	ND	2.5								

Sample ID	LCS-42566	SampType:	LCS	TestCode:	Total Phenolics by SW-846 9067					
Client ID:	LCSW	Batch ID:	42566	RunNo:	56942					
Prep Date:	1/11/2019	Analysis Date:	1/11/2019	SeqNo:	1905060	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	21	2.5	20.00	0	107	53.3	138			

Sample ID	LCSD-42566	SampType:	LCSD	TestCode:	Total Phenolics by SW-846 9067					
Client ID:	LCSS02	Batch ID:	42566	RunNo:	56942					
Prep Date:	1/11/2019	Analysis Date:	1/11/2019	SeqNo:	1905061	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	21	2.5	20.00	0	106	53.3	138	0.926	21	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812D12

15-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID	Ics-1 99.0uS eC		SampType:	LCS		TestCode:	SM2510B: Specific Conductance				
Client ID:	LCSW		Batch ID:	R56584		RunNo:	56584				
Prep Date:			Analysis Date:	12/26/2018		SeqNo:	1894188		Units: µmhos/cm		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Conductivity	99	5.0	99.00	0	99.7	80	120				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812D12

15-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID MB	SampType: MBLK	TestCode: SM 4500 NH3: Ammonia								
Client ID: PBW	Batch ID: R56711	RunNo: 56711								
Prep Date:	Analysis Date: 12/31/2018	SeqNo: 1897814	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	1.0								

Sample ID LCS	SampType: LCS	TestCode: SM 4500 NH3: Ammonia								
Client ID: LCSW	Batch ID: R56711	RunNo: 56711								
Prep Date:	Analysis Date: 12/31/2018	SeqNo: 1897815	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	10	1.0	10.00	0	101	80	120			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812D12

15-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID	mb-1 alk	SampType:	MBLK	TestCode:	SM2320B: Alkalinity					
Client ID:	PBW	Batch ID:	R56584	RunNo:	56584					
Prep Date:		Analysis Date:	12/26/2018	SeqNo:	1894233	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID	ics-1 alk	SampType:	LCS	TestCode:	SM2320B: Alkalinity					
Client ID:	LCSW	Batch ID:	R56584	RunNo:	56584					
Prep Date:		Analysis Date:	12/26/2018	SeqNo:	1894234	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.28	20.00	80.00	0	97.9	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1812D12

15-Jan-19

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Wel

Sample ID MB-42337	SampType: MBLK	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: PBW	Batch ID: 42337	RunNo: 56659								
Prep Date: 12/27/2018	Analysis Date: 12/29/2018	SeqNo: 1895883	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID LCS-42337	SampType: LCS	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: LCSW	Batch ID: 42337	RunNo: 56659								
Prep Date: 12/27/2018	Analysis Date: 12/29/2018	SeqNo: 1895884	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1000	20.0	1000	0	100	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Sample Log-In Check List

Client Name: **City of Las Cruces**

Work Order Number: **1812D12**

RcptNo: **1**

Received By: **Victoria Zellar** 12/21/2018 10:08:00 AM

Victoria Zellar

Completed By: **Erin Melendrez** 12/21/2018 2:28:19 PM

EM

Reviewed By: JAB 12/21/18
LB: DAD 12/21/18

Chain of Custody

1. Is Chain of Custody complete? Yes No Not Present
 2. How was the sample delivered? FedEx

Log In

3. Was an attempt made to cool the samples? Yes No NA
 4. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
 5. Sample(s) in proper container(s)? Yes No
 6. Sufficient sample volume for indicated test(s)? Yes No
 7. Are samples (except VOA and ONG) properly preserved? Yes No
 8. Was preservative added to bottles? Yes No NA
 9. VOA vials have zero headspace? Yes No No VOA Vials
 10. Were any sample containers received broken? Yes No
 11. Does paperwork match bottle labels? Yes No
 (Note discrepancies on chain of custody)
 12. Are matrices correctly identified on Chain of Custody? Yes No
 13. Is it clear what analyses were requested? Yes No
 14. Were all holding times able to be met? Yes No
 (If no, notify customer for authorization.)

of preserved bottles checked for pH: 3
 (2 or >12 unless noted)
 Adjusted? NO
 Checked by: DAD 12/21/18

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

16. Additional remarks: VOAS NOT INCLUDED so poured off from unpreserved 500mL container into 2.40mL HCl VOAS / sodium thiosulfate VOA to run Analysis.

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.7	Good	Yes			

October 12, 2009

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
acetone	67-64-1	8260B	-	0.01	0.0195	-	mg/L	y
acrylonitrile	107-13-1	8260B	-	0.1	0.195	-	mg/L	y
benzene	71-43-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
bromochloromethane	74-97-5	8260B	-	0.001	0.00195	-	mg/L	y
bromodichloromethane	75-27-4	8260B	-	0.005	0.00975	-	mg/L	y
bromoform	75-25-2	8260B	-	0.015	0.02925	-	mg/L	y
carbon disulfide	75-15-0	8260B	-	0.001	0.00195	-	mg/L	y
carbon tetrachloride	56-23-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
chlorobenzene	108-90-7	8260B	0.1	0.005	0.05	0.075	mg/L	y
chloroethane	75-00-3	8260B	-	0.01	0.0195	-	mg/L	y
chloroform	67-66-3	8260B	0.1	0.005	0.05	0.75	mg/L	y
dibromochloromethane	124-48-1	8260B	-	0.005	0.00975	-	mg/L	y
1,2-dibromo-3-chloropropane	96-12-8	504.1	0.0002	0.0001	0.0001	0.00015	mg/L	y
1,2-dichlorobenzene	95-50-1	8260B	0.06	0.01	0.03	0.045	mg/L	y
1,3-dichlorobenzene	541-73-1	8260B	-	0.01	0.0195	-	mg/L	y
1,4-dichlorobenzene	106-46-7	8260B	0.075	0.015	0.0375	0.5625	mg/L	n
trans-1,4-dichloro-2-butene	110-57-6	8260B	-	0.001	0.00195	-	mg/L	y
dichlorodifluoromethane	75-71-8	8260B	-	0.005	0.00975	-	mg/L	y
1,1-dichloroethane	75-34-3	8260B	0.025	0.005	0.0125	0.01875	mg/L	n
1,2-dichloroethane (EDC)	107-06-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y

October 12, 2009

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (continued)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
1,1-dichloroethylene (1,1-DCE)	75-35-4	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
cis-1,2-dichloroethylene	156-59-2	8260B	0.07	0.005	0.035	0.0525	mg/L	y
trans-1,2-dichloroethylene	156-60-5	8260B	0.1	0.005	0.05	0.075	mg/L	y
1,2-dichloropropane	78-87-5	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y
cis-1,3-dichloropropene	10061-01-5	8260B	-	0.02	0.039	-	mg/L	y
trans-1,3-dichloropropene	10061-02-6	8260B	-	0.01	0.0195	-	mg/L	y
ethylbenzene	100-41-4	8260B	0.7	0.01	0.35	0.525	mg/L	y
ethylene dibromide (EDB)	106-93-4	504.1	0.00005	0.000025	0.000025	0.000038	mg/L	y
2-hexanone	591-78-6	8260B	-	0.04	0.078	-	mg/L	y
methyl bromide	74-83-9	8260B	-	0.01	0.0195	-	mg/L	y
methyl chloride	74-87-3	8260B	-	0.001	0.00195	-	mg/L	y
methyl ethyl ketone	78-93-3	8260B	-	0.01	0.0195	-	mg/L	y
methyl iodide	74-88-4	8260B	-	0.05	0.0975	-	mg/L	y
4-methyl-2-pentanone	108-10-1	8260B	-	0.001	0.00195	-	mg/L	y
methylene bromide	74-95-3	8260B	-	0.001	0.00195	-	mg/L	y
methylene chloride	74-87-3	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
styrene	100-42-5	8260B	0.1	0.001	0.05	0.075	mg/L	y
1,1,1,2-tetrachloroethane	630-20-6	8260B	-	0.001	0.00195	-	mg/L	y
1,1,2,2-tetrachloroethane	79-34-5	8260B	0.01	0.005	0.005	0.0075	mg/L	y
tetrachloroethylene (PCE)	127-18-4	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (continued)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
toluene	108-88-3	8260B	0.75	0.001	0.375	0.5625	mg/L	y
1,1,1-trichloroethane	71-55-6	8260B	0.06	0.005	0.03	0.045	mg/L	y
1,1,2-trichloroethane	79-00-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
trichloroethylene (TCE)	79-01-6	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
trichlorofluoromethane	75-69-4	8260B	-	0.01	0.0195	-	mg/L	y
1,2,3-trichloropropane	96-18-4	8260B	-	0.05	0.0975	-	mg/L	y
vinyl acetate	108-05-4	8260B	-	0.0004	0.00078	-	mg/L	y
vinyl chloride	75-01-4	8260B	0.001	0.0004	0.0005	0.00075	mg/L	y
xylenes	1330-20-7	8260B	0.62	0.0015	0.31	0.465	mg/L	y
ammonia as (N)	N/A	SM 4500 NH3	-	0.5	-	-	mg/L	y
nitrate (as N)	N/A	300.0	10	1.0	5.0	-	mg/L	n
chloride	16887-00-6	300.0	250	5.0	187.5	7.5	mg/L	n
sulfate	14808-79-8	300.0	250	5.0	187.5	250	mg/L	n
total dissolved solids	N/A	SM 2540C	500	5.0	-	250	mg/L	n
carbonate alkalinity	3812-32-6	SM 2320B	-	10	-	-	mg/L	n
bicarbonate alkalinity	71-52-3	SM 2320B	-	10	-	-	mg/L	n
total phenolics	N/A	9067	0.005	0.0025	0.0025	-	mg/L	n
total organic carbon	N/A	9060	-	1	-	0.00375	mg/L	n
barium (total)	7440-39-3	6010B	1	0.01	0.5	-	mg/L	n
beryllium (total)	7440-41-7	6010B	0.004	0.002	0.002	0.75	mg/L	y
cadmium (total)	7440-43-9	6010B	0.005	0.002	0.0025	0.003	mg/L	y
calcium (total)	7440-70-2	6010B	-	1	-	0.00375	mg/L	y
chromium (total)	7440-47-3	6010B	0.05	0.006	0.025	-	mg/L	y
cobalt (total)	7440-48-4	6010B	0.05	0.006	0.025	0.0375	mg/L	n
copper (total)	7440-50-8	6010B	1	0.006	0.5	0.0375	mg/L	y
						0.75	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (concluded)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
iron (total)	7439-89-6	6010B	0.3	0.1	0.225	0.3	mg/L	n
lead (total)	7439-92-1	6010B	0.05	0.005	0.025	0.0375	mg/L	y
magnesium (total)	7439-95-4	6010B	-	1	-	-	mg/L	n
manganese (total)	7439-96-5	6010B	0.05	0.03	0.0375	0.05	mg/L	n
nickel (total)	7440-02-0	6010B	0.2	0.01	0.1	0.15	mg/L	n
potassium (total)	7440-09-7	6010B	-	1	-	-	mg/L	y
silver (total)	7440-22-4	6010B	0.05	0.005	0.025	0.0375	mg/L	n
sodium (total)	7440-23-5	6010B	-	1	-	-	mg/L	y
vanadium (total)	7440-62-2	6010B	-	0.05	-	-	mg/L	n
zinc (total)	7440-66-6	6010B	5	0.02	2.5	3.75	mg/L	y
antimony (total)	7440-36-0	6020	0.006	0.001	0.003	0.0045	mg/L	y
arsenic (total)	7440-38-2	6020	0.01	0.004	0.005	0.0075	mg/L	y
selenium (total)	7782-49-2	6020	0.05	0.001	0.025	0.0375	mg/L	y
thallium (total)	7440-28-0	6020	0.002	0.001	0.001	0.0015	mg/L	y
pH	N/A	SM4500	6.5-8.5	+/- 0.1	-	-	mg/L	y
specific conductance	N/A	120.1	-	+/- 25	-	-	S.U.	n
temperature	N/A	field	-	+/- 0.5	-	-	µS/cm	n
water level elevation	N/A	field	-	+/- 0.01	-	-	°F	n
GWPS - ground water protection standard							ft	n

PQL - practical quantitation limit
 AML - assessment monitoring level
 CAL - corrective action level
 mg/L - milligrams per liter
 µS/cm - microSiemens per centimeter
 S.U. - standard pH units
 °F - degrees Fahrenheit
 ft - feet