



September 27, 2017

Mr. James Dyer
NMED/SWB, Permitting Section
P.O. Box 26110
Santa Fe, New Mexico 87502-6110

james.dyer@state.nm.us

Re: First semi-annual groundwater monitoring event of the 2017 monitoring period for Las Cruces Foothills Landfill

Dear Mr. Dyer:

On behalf of Las Cruces Utilities (LCU), John Shomaker & Associates, Inc. (JSAI) has prepared this first semi-annual groundwater monitoring report for the 2017 monitoring period at Las Cruces Foothills Landfill. This report was prepared according to the requirements listed in 20.9.9.10.N NMAC, and includes the following items:

- Table 1 summarizing parameters detected above the AML in monitor wells sampled, presented below (20.9.9.10.N NMAC requirements (12), (20))
- Figure 1 groundwater elevation contour map, attached to this letter report (20.9.9.10.N NMAC requirements (6), (18))
- tables with summary of water-level elevation measurements (App. A)
- tables with baseline and background monitoring data for monitor wells sampled, attached to this letter report (20.9.9.10.N NMAC requirements (3), (12), (19)) (App. B)
- laboratory reports, attached to this letter report (20.9.9.10.N NMAC requirements (1), (2), (4), (5), (7) through (15), (17)) (App. C)
- Review of the groundwater monitoring results did not reveal any anomalies in the datasets (20.9.9.10.N NMAC requirement (16)).

LCU Staff performed the first semi-annual monitoring event of 2017 at Las Cruces Foothills Landfill on June 27 and 28, 2017. Monitor wells MW-1, MW-2, MW-4, MW-5, MW-6, MW-7, and MW-9 were sampled in June 2017. Pumps at MW-3 and MW-8 were found to have malfunctioned in December 2016, and the replacement pumps were not yet installed for the June 2017 sampling event; NMED/SWB indicated that it would be best to go ahead with the June 2017 sampling of the other monitoring wells instead of delaying sampling of wells until pumps are installed at MW-3 and MW-8 (May 23, 2017 correspondence between Mr. Josh Rosenblatt at LCU and George Schuman at NMED/SWB). It should be noted, however, that the new variable speed pumps have now been installed at MW-3 and MW-8; these pumps will allow for low-flow sampling methodology.

Due to low yield and slow rate of recovery, monitor wells were purged about 1 week prior to sampling. Additional purging of these wells was performed on the day of sampling to the extent possible based on drawdown. Review of the laboratory results for Las Cruces Foothills Landfill monitor wells MW-1, MW-2, MW-4, MW-5, MW-6, MW-7, and MW-9 did not reveal any anomalies in the dataset.

Water levels were measured at MW-1, MW-2, MW-4, MW-5, MW-6, MW-7, and MW-9 on June 21 and 22, 2017, prior to purging. Water levels at MW-3 and MW-8 were measured on August 2, 2017. Based on the depth-to-water measurements collected in June and August 2017, the direction of groundwater flow beneath the landfill remains west-southwest (Fig. 1).

Table 1 presents monitor wells and parameters for which the Assessment Monitoring Level (AML) was exceeded in the first semi-annual monitoring event of 2017. Figures 2 through 5 present graphs of historical data for these parameters. The AML of 0.0025 milligrams per liter (mg/L) for tetrachloroethene (PCE) was exceeded by less than 0.016 mg/L in monitor wells MW-1, MW-4, MW-5, MW-6, and MW-7. Historical PCE trends that show fluctuations and overall decreasing concentrations at MW-2 and MW-6 suggest that PCE is naturally attenuating at these locations (Fig. 2). PCE concentrations at MW-7 have increased over the last three sampling events, but the concentrations are still within historical fluctuations; these fluctuations may also be an indication of natural attenuation.

Table 1. Summary of parameters that were detected above the AML in monitor wells at Las Cruces Foothills Landfill, New Mexico

monitor well	sampling event	parameter	units	GWPS	CAL	AML	result
MW-1	6/27/17	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	0.015
	6/27/17	trichloroethene (TCE) ¹	mg/L	0.005	0.005	0.0025	0.0026
MW-4	6/28/17	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	0.0097
	6/28/17	trichloroethene (TCE) ¹	mg/L	0.005	0.005	0.0025	0.0031
	6/28/17	methylene chloride ¹	mg/L	0.005	0.005	0.0025	0.014
MW-5	6/27/17	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	0.0061
MW-6	6/27/17	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	0.0065
MW-7	6/27/17	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	0.018
	6/27/17	trichloroethene (TCE) ¹	mg/L	0.005	0.005	0.0025	0.0037
	6/27/17	trichlorofluoromethane ¹	mg/L	na	na	0.00195 ^b	0.0042

¹ Identified as "hazardous" in 20.9.9.20 NMAC

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

bold text indicates concentrations that exceed the AML

GWPS - groundwater protection standard

CAL - corrective action level, 75 percent of the GWPS

AML - assessment monitoring level

mg/L - milligrams per liter

na - no GWPS for this parameter

The AML of 0.0025 mg/L for trichloroethene (TCE) was exceeded by less than 0.0013 mg/L in MW-1, MW-4, and MW-7, the AML of 0.0025 mg/L for methylene chloride was exceeded by 0.0115 mg/L in MW-4, and the AML of 0.00195 mg/L for trichlorofluoromethane was exceeded by 0.00225 mg/L in MW-7. These are the same constituents of concern observed in the same monitor wells as in previous monitoring events at Las Cruces Foothills Landfill (see Figs. 2 through 5). These constituents of concern have been below detection limits in MW-9, which is located down-gradient of the landfill.

The second semi-annual groundwater monitoring report for the 2017 monitoring period will include the results of this first semi-annual monitoring event and the second semi-annual event, as well as analysis and interpretation of 2017 results, historical trends, and a discussion of the nature and extent of groundwater contaminants and contaminant transport mechanisms, as have been included in the second semi-annual reports in 2013 through 2016.

Please let me know if you have any questions or comments.

Sincerely,

JOHN SHOMAKER & ASSOCIATES, INC.



Annie McCoy
Senior Hydrogeologist

AMM:am

Enc: Figures 1 through 5

Appendix A. Summary of water-level measurements

Appendix B. Baseline and background monitoring data

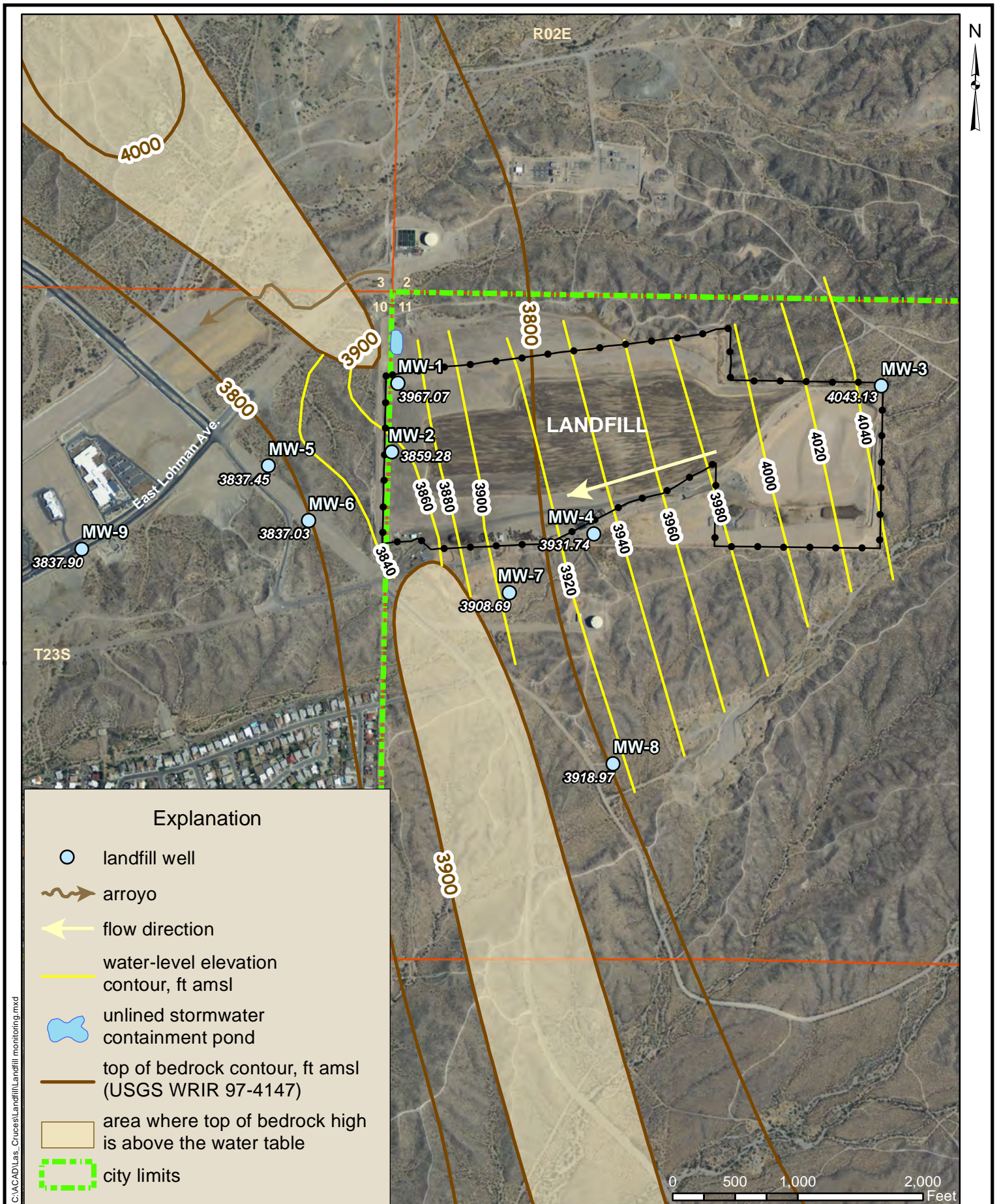
Appendix C. Copy of laboratory reports for the June 27 and 28, 2017 sampling event

cc + enc: Carl Clark, Las Cruces Utilities (two complete bound copies)

Josh Rosenblatt, Las Cruces Utilities (one complete bound copy)

ILLUSTRATIONS

- Figure 1. Aerial photograph showing locations of Las Cruces Foothills Landfill monitor wells, groundwater-elevation contours, and direction of groundwater flow in June 2017.
- Figure 2. Graph showing tetrachloroethene (PCE) concentrations versus time for monitor wells MW-1 through MW-9, Las Cruces Foothills Landfill, New Mexico.
- Figure 3. Graph showing trichloroethene (TCE) concentrations versus time for monitor wells MW-1 through MW-9, Las Cruces Foothills Landfill, New Mexico.
- Figure 4. Graph showing methylene chloride concentrations versus time for monitor wells MW-1 through MW-9, Las Cruces Foothills Landfill, New Mexico.
- Figure 5. Graph showing trichlorofluoromethane concentrations versus time for monitor wells MW-2, MW-4 and MW-7, Las Cruces Foothills Landfill, New Mexico.



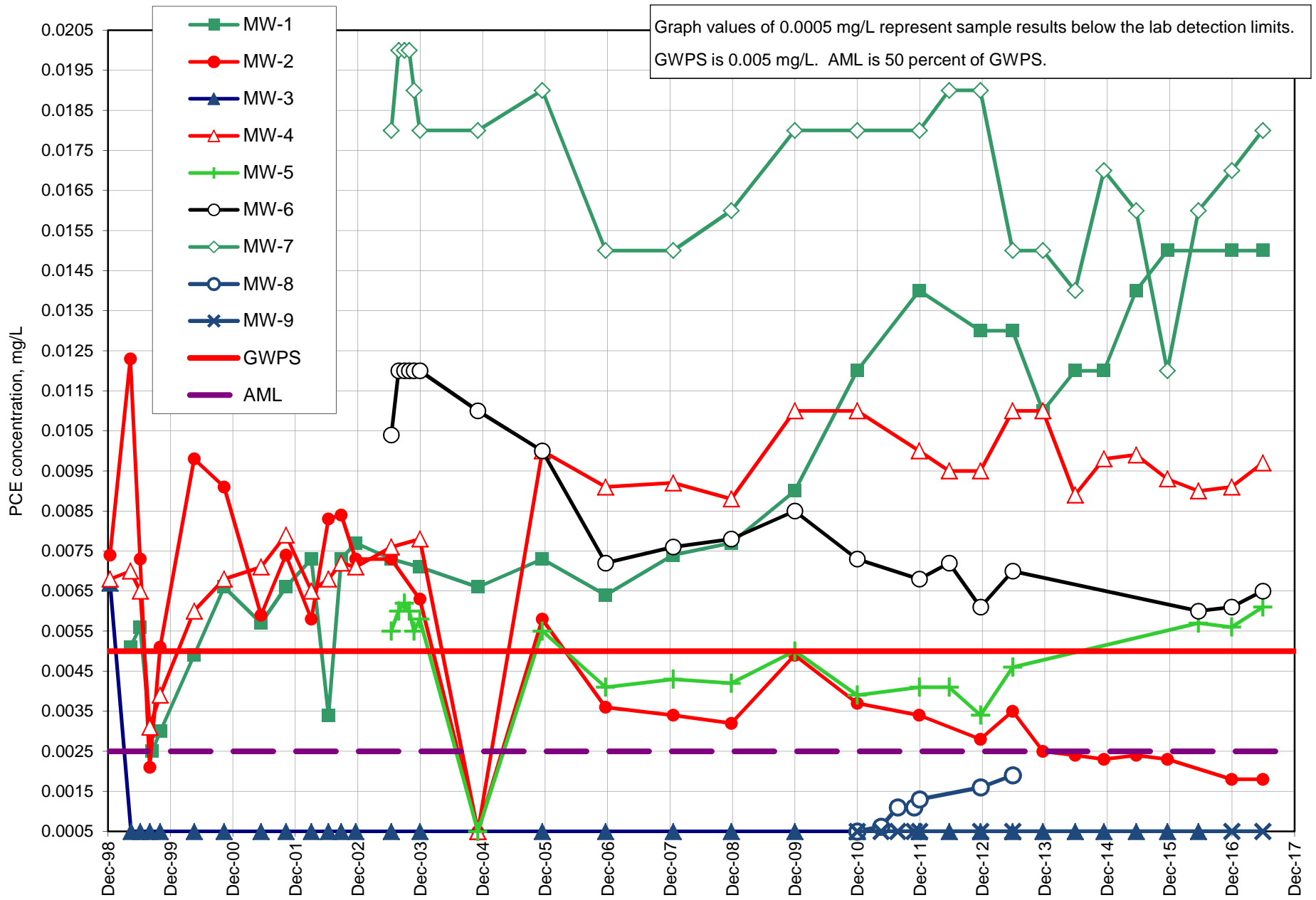


Figure 2. Graph showing tetrachloroethene (PCE) concentrations versus time for monitor wells MW-1 through MW-9, Las Cruces Foothills Landfill, New Mexico.

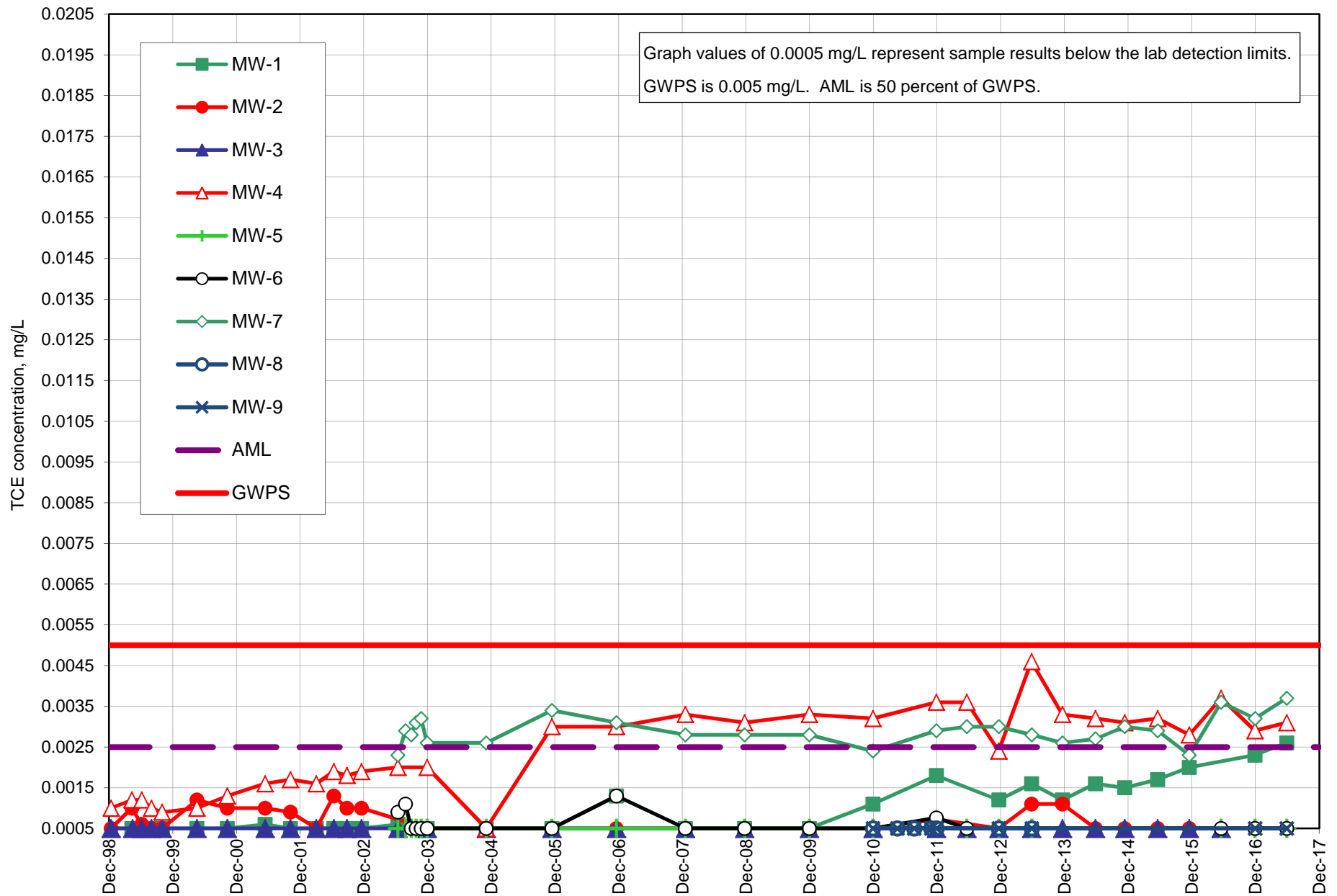


Figure 3. Graph showing trichloroethene (TCE) concentrations versus time for monitor wells MW-1 through MW-9, Las Cruces Foothills Landfill, New Mexico.

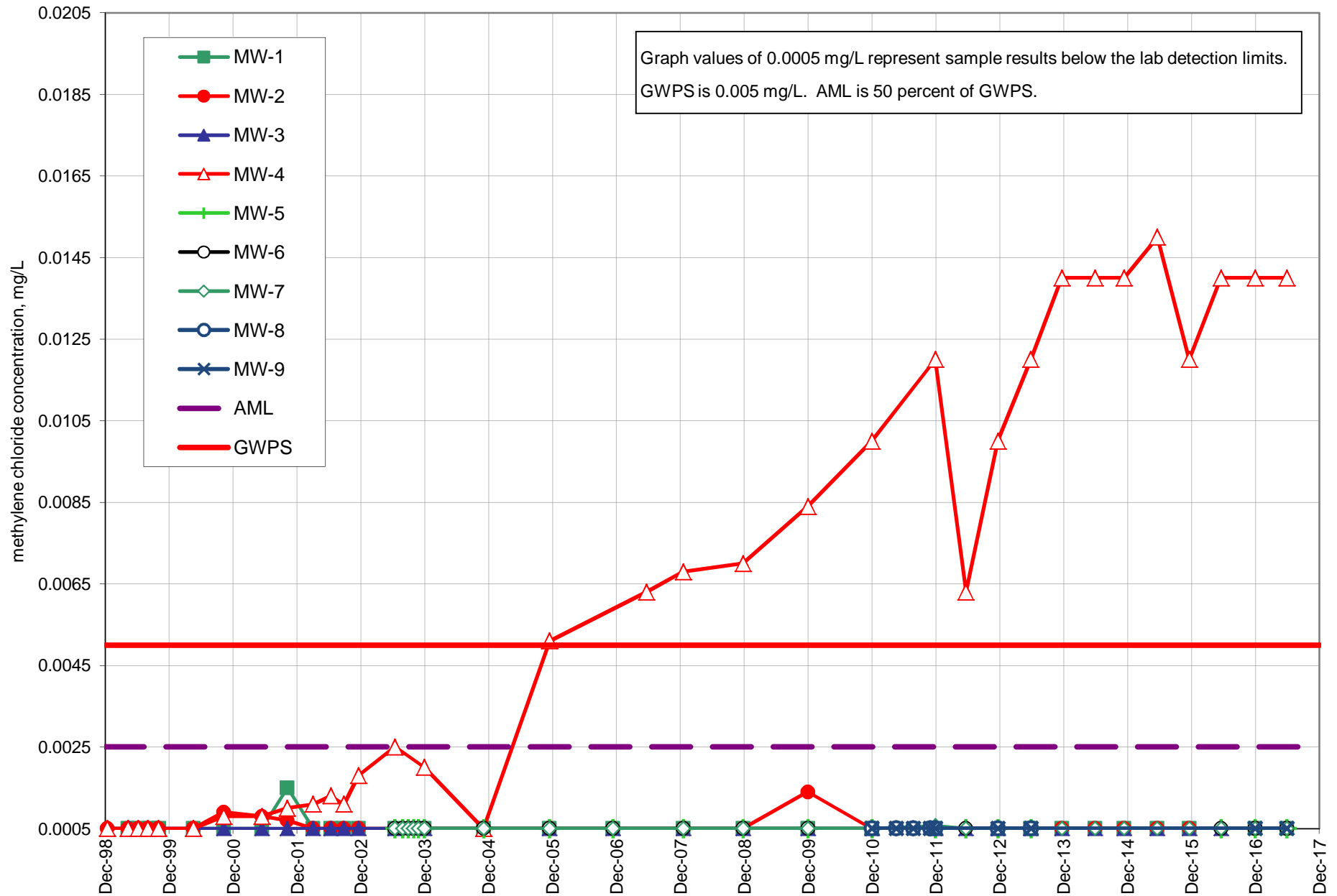


Figure 4. Graph showing methylene chloride concentrations versus time for monitor wells MW-1 through MW-9, Las Cruces Foothills Landfill, New Mexico.

Appendix A.

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

**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	12/02/04	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	06/18/13	4,261.61	394.20	3,867.41
MW-1	12/12/13	4,261.61	395.24	3,866.37
MW-1	06/19/14	4,261.61	392.50	3,869.11
MW-1	12/11/14	4,261.61	393.45	3,868.16
MW-1	06/18/15	4,261.61	395.45	3,866.16
MW-1	12/17/15	4,261.61	396.25	3,865.36
MW-1	06/09/16	4,261.61	395.50	3,866.11
MW-1	12/20/16	4,261.61	396.35	3,865.26
MW-1	06/21/17	4,261.61	394.54	3,867.07
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

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	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	12/02/04	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	06/19/13	4,265.36	405.60	3,859.76
MW-2	12/12/13	4,265.36	406.50	3,858.86
MW-2	06/19/14	4,265.36	405.55	3,859.81
MW-2	12/11/14	4,265.36	403.25	3,862.11
MW-2	06/18/15	4,265.36	405.58	3,859.78
MW-2	12/17/15	4,265.36	407.70	3,857.66
MW-2	06/09/16	4,265.36	405.95	3,859.41
MW-2	12/20/16	4,265.36	407.28	3,858.08
MW-2	06/21/17	4,265.36	406.08	3,859.28
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

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-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	12/02/04	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	06/12/12	4,356.06	307.21	4,048.85
MW-3	12/12/12	4,356.06	307.75	4,048.31
MW-3	06/18/13	4,356.06	308.65	4,047.41
MW-3	12/12/13	4,356.06	306.00	4,050.06
MW-3	06/19/14	4,356.06	306.40	4,049.66
MW-3	12/04/14	4,356.06	308.81	4,047.25
MW-3	06/18/15	4,356.06	309.00	4,047.06
MW-3	12/17/15	4,356.06	309.30	4,046.76
MW-3	06/09/16	4,356.06	309.80	4,046.26
MW-3	12/20/16	4,356.06	310.72	4,045.34
MW-3	08/02/17	4,356.06	312.93	4,043.13
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

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-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	12/02/04	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	06/12/12	4,313.20	375.83	3,937.37
MW-4	12/12/12	4,313.20	376.08	3,937.12
MW-4	06/19/13	4,313.20	380.30	3,932.90
MW-4	12/12/13	4,313.20	381.00	3,922.20
MW-4	06/19/14	4,313.20	381.30	3,931.90
MW-4	12/04/14	4,313.20	381.27	3,931.93
MW-4	06/18/15	4,313.20	381.30	3,931.90
MW-4	12/17/15	4,313.20	381.50	3,931.70
MW-4	06/09/16	4,313.20	381.30	3,931.90
MW-4	12/20/16	4,313.20	381.34	3,931.86
MW-4	06/22/17	4,313.20	381.46	3,931.74
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

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-5	12/02/04	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	06/12/12	4,235.55	392.08	3,843.47
MW-5	12/13/12	4,235.55	394.44	3,841.11
MW-5	06/19/13	4,235.55	394.40	3,841.15
MW-5	08/06/14	4,235.55	394.45	3,841.10
MW-5	12/11/14	4,235.55	398.18	3,837.37
MW-5	07/23/15	4,235.55	397.59	3,837.96
MW-5	02/12/16	4,235.55	398.46	3,837.09
MW-5	06/09/16	4,235.55	397.70	3,837.85
MW-5	12/20/16	4,235.55	398.83	3,836.72
MW-5	06/21/17	4,235.55	398.10	3,837.45
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	12/02/04	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
MW-6	06/12/12	4,258.32	413.25	3,845.07
MW-6	12/13/12	4,258.32	415.69	3,842.63
MW-6	06/18/13	4,258.32	420.10	3,838.22
MW-6	08/06/14	4,258.32	421.47	3,836.85
MW-6	12/11/14	4,258.32	420.80	3,837.52
MW-6	07/23/15	4,258.32	420.55	3,837.77
MW-6	02/12/16	4,258.32	421.24	3,837.08

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-6	06/09/16	4,258.32	421.20	3,837.12
MW-6	12/21/16	4,258.32	421.72	3,836.60
MW-6	06/21/17	4,258.32	421.29	3,837.03
MW-7	07/15/03	4,292.86	378.29	3,914.57
MW-7	08/27/03	4,292.86	378.72	3,914.14
MW-7	09/29/03	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	12/02/04	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	01/11/08	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	06/12/12	4,292.86	378.79	3,914.07
MW-7	12/13/12	4,292.86	379.04	3,913.82
MW-7	06/19/13	4,292.86	383.40	3,909.46
MW-7	12/12/13	4,292.86	384.70	3,908.16
MW-7	06/19/14	4,292.86	384.10	3,908.76
MW-7	12/11/14	4,292.86	384.15	3,908.71
MW-7	06/18/15	4,292.86	384.10	3,908.76
MW-7	12/11/15	4,292.86	384.05	3,908.81
MW-7	06/09/16	4,292.86	384.10	3,908.76
MW-7	12/21/16	4,292.86	384.18	3,908.68
MW-7	06/21/17	4,292.86	384.17	3,908.69
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	06/18/13	4,286.00	361.33	3,924.67
MW-8	08/06/14	4,286.00	359.76	3,926.24
MW-8	12/11/14	4,286.00	367.85	3,918.15
MW-8	07/23/15	4,286.00	367.53	3,918.47
MW-8	02/12/16	4,286.00	367.71	3,918.29

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 (concluded)**

well	date	top of casing elevation (ft amsl)	depth to water (ft bmp)	water-level elevation (ft amsl)
MW-8	06/09/16	4,286.00	367.50	3,918.50
MW-8	12/21/16	4,286.00	367.39	3,918.61
MW-8	08/02/17	4,286.00	367.03	3,918.97
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	06/26/13	4,212.58	373.70	3,838.88
MW-9	08/06/14	4,212.58	374.03	3,838.55
MW-9	12/11/14	4,212.58	378.85	3,833.73
MW-9	07/23/15	4,212.58	369.75	3,842.83
MW-9	02/12/16	4,212.58	367.76	3,844.82
MW-9	06/09/16	4,212.58	374.70	3,837.88
MW-9	12/21/16	4,212.58	374.85	3,837.73
MW-9	06/22/17	4,212.58	374.68	3,837.90

ft bmp - feet below measuring point

ft amsl - feet above mean sea level

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

Table with columns: constituent, CAS Number, unit, GWPS, and RESULTS FOR MW-1 (including dates from 3/1/90 to 6/13/01). Rows include various chemical compounds such as n-Nitrosodiethylamine, Phenacetin, and various chlorinated pesticides.

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

Table with columns for constituent, CAS Number, unit, GWPS, and results for MW-1 across various dates from 12/29/09 to 6/27/17. Includes sections for Field Parameters, Major Ions, Nitrogen Species, Metals, and Volatile Organic Compounds.

MW-2

APPENDIX B
Las Cruces Foothills Landfill MW-2

Las Cruces Foothills Landfill monitoring well MW-2													baseline	standard	
constituent	CAS Number	unit	GWPS	RESULTS FOR MW-2										average	deviation
				12/27/11	12/19/12	6/25/13	12/19/13	6/26/14	12/11/14	6/18/15	12/17/15	12/27/16	6/27/17		
date													1/12/99 to 5/18/00	1/12/99 to 5/18/00	
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	-	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	
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	-	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	
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	x	x	
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	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	
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	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	
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	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	
2-Chlorophenol ¹	95-57-8	mg/L	-	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	
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	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	
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	
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	
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	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	
Pentachlorophenol ¹	87-86-5	mg/L	-	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	
Radium 226 and 228	NA	pCi/L	5						1.26				9.15	17.19	
Ra-226, total	NA	pCi/L	-	x	x	x	x	x	0.532	x	x	x	x	3.32	6.81
Ra-228 ¹ , total	NA	pCi/L	-	x	x	x	x	x	0.729	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	
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	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	
aldrin ¹	309-00-2	mg/L	-	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	
alpha-Chlordane ¹	5103-71-9	mg/L	-	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	
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	x	x	
Dieldrin ¹	60-57-1	mg/L	-	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	
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	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	
Endrin aldehyde ¹	7421-93-4	mg/L	-	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	
Endrin ¹	72-20-8	mg/L	-	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	
gamma-Chlordane ¹	5103-74-2	mg/L	-	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	
Heptachlor ¹	76-44-8	mg/L	-	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	
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	x	x	
Toxaphene ¹	8001-35-2	mg/L	-	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	x	x	<0.00025	x	x	x	x	x	
Arochlor-1221	11104-28-2	mg/L	-	x	x	x	x	x	<0.00025	x	x	x	x	x	
Arochlor-1232	11141-16-5	mg/L	-	x	x	x	x	x	<0.00025	x	x	x	x	x	
Arochlor-1242	53469-21-9	mg/L	-	x	x	x	x	x	<0.00025	x	x	x	x	x	
Arochlor-1248	12672-29-6	mg/L	-	x	x	x	x	x	<0.00025	x	x	x	x	x	
Arochlor-1254	11097-69-1	mg/L	-	x	x	x	x	x	<0.00025	x	x	x	x	x	
Arochlor-1260	11096-82-5	mg/L	-	x	x	x	x	x	<0.00025	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	
2,4,5-T ¹	93-76-5	mg/L	-	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	
Dimethoate ¹	60-51-5	mg/L	-	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	
Disulfoton ¹	298-04-4	mg/L	-	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	
Methyl parathion ¹	298-00-0	mg/L	-	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	
Parathion (Ethyl) ¹	56-38-2	mg/L	-	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	
Silvex ¹	93-72-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
o,o-Diethyl o-2-pyrazinyl 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 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.

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
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	<0.001	<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	-	0.00025	<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				x										
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	NA	pCi/L	5	5.72	2.77	12.00	1.22	0.90	0.66	0.61	0.26	0.33		1.057
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
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
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	<0.000050
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
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	<0.000050
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
Endrin ketone ¹	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
gamma-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
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	x	x	x	x	x	x	x	x	<0.00005	<0.000050
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.003	<0.000050
Polychlorinated Biphenyls (PCBs)¹		mg/L	0.001											
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-pyrazinyl 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 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.

(B) 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

Table with columns: constituent, CAS Number, unit, GWPS, and RESULTS FOR MW-3 (dates 9/25/02 to 12/29/10). Rows include various chemical classes: n-Nitrosodiphenylamines, Semi Volatile Organic Compounds - Phenolics, Radium, Chlorinated Pesticides, Polychlorinated Biphenyls (PCBs), and Other Pesticides and Herbicides.

1 hazardous
x parameter not analyzed
(*) See section entitled 'Semi volatile organic compounds - phenolics' for break-out of phenolics conc
(**) 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

Table with 17 columns: constituent, CAS Number, unit, GWPS, and 12 monitoring dates (5/18/11 to 6/16/16). It includes sections for Field Parameters, Major Ions, Nitrogen Species, Metals, and Volatile Organic Compounds. Data points include concentrations in mg/L and units like ft amsl or deg F.

MW-4

APPENDIX B

Las Cruces Foothills Landfill MW-4

Table with columns: constituent, CAS Number, unit, GWPS, RESULTS FOR MW-4 (6/19/12 to 6/28/17), baseline average (1/12/99 to 5/18/00), standard deviation (1/12/99 to 5/18/00). Rows include Field Parameters (water level elevation, conductivity, pH, temperature), Major Ions (calcium, chloride, fluoride, magnesium, potassium, sodium, sulfate, alkalinity, bicarbonate alkalinity, carbonate alkalinity, total dissolved solids), Nitrogen Species (ammonia as N, Kjeldahl nitrogen, nitrate as N, nitrite, total nitrogen), Metals (aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, silver, thallium, tin, uranium, vanadium, zinc, total organic carbon, phosphate, sulfide, cyanide, perchlorate, total phenolics, Polychlorinated Biphenyls (PCBs)), and Volatile Organic Compounds (1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethylene, 1,1-Dichloroethene, 1,1-DCE, 1,1-Dichloropropene, 1,2-Dibromo-3-chloropropane (DBCP), 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2-Dichlorobenzene (o-Dichlorobenzene), 1,2-Dichloroethane (EDC), 1,2-Dichloropropane, 1,3-Dichlorobenzene (m-Dichlorobenzene), 1,3-Dichloropropane, 1,4-Dichlorobenzene (p-Dichlorobenzene), 2,2-Dichloropropane, 2-Butanone (Methyl Ethyl Ketone) (MEK), 2-Chlorotoluene, 2-Hexanone (Butyl Ketone), 4-Chlorotoluene, 4-Methyl-2-pentanone, Acetone, Acrolein, Acrylonitrile, Benzene, Bis(chloromethyl) ether, Bromochloromethane, Bromomethane (methyl bromide), Carbon Disulfide, Carbon Tetrachloride, Chlorobenzene, Chloroethane, Chloromethane (methyl chloride), Chloroprene (2-Chloro-1,3-butadiene), cis-1,2-Dichloroethylene (cis-1,2-Dichloroethene), cis-1,3-Dichloropropene, Dibromomethane (methylene bromide), Dichlorodifluoromethane, Ethyl methacrylate, Ethylbenzene, Ethylene Dibromide (1,2-Dibromoethane) (EDB), Hexachlorobutadiene, Isobutyl alcohol, Isopropylbenzene).

APPENDIX B

Las Cruces Foothills Landfill MW-4

Table with columns: constituent, CAS Number, unit, GWPS, and RESULTS FOR MW-4 (6/19/12 to 6/28/17), plus baseline average and standard deviation columns.

MW-5

APPENDIX B

Las Cruces Foothills Landfill MW-5

Las Cruces Foothills Landfill monitoring well MW-5

constituent	CAS Number	unit	GWPS	RESU							
				12/14/05	12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	x	<0.001	x	x	x	x
Acenaphthene ¹	83-32-9	mg/L	-	x	x	x	<0.001	x	x	x	x
Acenaphthylene ¹	208-96-8	mg/L	-	x	x	x	<0.001	x	x	x	x
Acetophenone ¹	98-86-2	mg/L	-	x	x	x	<0.001	x	x	x	x
alpha, alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	x	<0.001	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	x	x	x	<0.001	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	x	x	x	<0.001	x	x	x	x
Benzidine ¹	92-87-5	mg/L	-	x	x	x	<0.001	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	x	x	x	<0.00005	x	x	x	x
Benzo (a) pyrene ¹	205-99-2	mg/L	-	x	x	x	<0.00005	x	x	x	x
Benzo (b) fluoranthene ¹	191-24-2	mg/L	-	x	x	x	<0.001	x	x	x	x
Benzo (g,h,i) perylene ¹	207-08-9	mg/L	-	x	x	x	<0.00005	x	x	x	x
Benzo (k) fluoranthene ¹	50-32-8	mg/L	0.0002	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
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x	x	<0.001	x	x	x	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	x	x	<0.001	x	x	x	x
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	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	<0.001	x	x	x	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	x	x	<0.001	x	x	x	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	x	x	<0.001	x	x	x	x
Carbazole	86-74-8	mg/L	-	x	x	x	<0.001	x	x	x	x
Chlorobenzilate ¹	510-15-6	mg/L	-	x	x	x	<0.001	x	x	x	x
Chrysene ¹	218-01-9	mg/L	-	x	x	x	<0.00005	x	x	x	x
Diallate ¹	2303-16-4	mg/L	-	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
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	x	x	x	<0.00005	x	x	x	x
Dibenzofuran ¹	132-64-9	mg/L	-	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
Diethylphthalate ¹	84-66-2	mg/L	-	x	x	x	<0.001	x	x	x	x
Dimethylphthalate ¹	131-11-3	mg/L	-	x	x	x	<0.001	x	x	x	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	x	x	x	<0.001	x	x	x	x
Di-n-octylphthalate ¹	117-84-0	mg/L	-	x	x	x	<0.001	x	x	x	x
Diphenylamine ¹	122-39-4	mg/L	-	x	x	x	<0.001	x	x	x	x
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	x	x	<0.001	x	x	x	x
Fluoranthene ¹	206-44-0	mg/L	-	x	x	x	<0.001	x	x	x	x
Fluorene ¹	86-73-7	mg/L	-	x	x	x	<0.001	x	x	x	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	x	x	<0.0001	x	x	x	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	x	x	<0.001	x	x	x	x
Hexachloroethane ¹	67-72-1	mg/L	-	x	x	x	<0.001	x	x	x	x
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x	x	<0.001	x	x	x	x
HMX ¹	2691-41-0	mg/L	-	x	x	x	<0.0001	x	x	x	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	x	x	x	<0.00005	x	x	x	x
Isophorone ¹	78-59-1	mg/L	-	x	x	x	<0.001	x	x	x	x
Isosafrole ¹	120-58-1	mg/L	-	x	x	x	<0.001	x	x	x	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	x	<0.0001	x	x	x	x
Methapyrilene ¹	91-80-5	mg/L	-	x	x	x	<0.001	x	x	x	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	<0.001	x	x	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	x	x	x	<0.001	x	x	x	x
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	x	<0.001	x	x	x	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	<0.001	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	<0.001	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	<0.001	x	x	x	x
n-Nitrosodinpropylamine ¹	621-64-7	mg/L	-	x	x	x	<0.001	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	<0.001	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	<0.001	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	<0.001	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	<0.001	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	<0.001	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	<0.001	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	<0.001	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	<0.001	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	<0.001	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	x	x	x	<0.001	x	x	x	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	<0.001	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	<0.001	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	x	x	x	<0.001	x	x	x	x
Pyridine	110-86-1	mg/L	-	x	x	x	<0.001	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	<0.0001	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	<0.001	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	x	<0.001	x	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	<0.001	x	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	<0.001	x	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	<0.001	x	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	<0.001	x	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	<0.001	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	RESU							
				12/14/05	12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	<0.001	x	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	<0.001	x	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	<0.001	x	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	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	<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	<0.001	x	x	x	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	x	<0.001	x	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	<0.001	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	<0.001	x	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	<0.001	x	x	x	x
Radium 226 and 228	NA	pCi/L	5	0.3							
Ra-226, total	NA	pCi/L	-	x	x	x	0.14	x	x	x	x
Ra-228¹, total	NA	pCi/L	-	x	x	x	0.16	x	x	x	x
Chlorinated Pesticides											
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	<0.00004	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	<0.00004	x	x	x	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	<0.00004	x	x	x	x
aldrin ¹	309-00-2	mg/L	-	x	x	x	<0.00004	x	x	x	x
alpha-BHC ¹	319-84-6	mg/L	-	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
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	<0.00004	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	<0.0002	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	<0.00004	x	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	<0.00004	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	<0.00004	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	<0.00004	x	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	<0.00004	x	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	<0.00004	x	x	x	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	x	x	x	<0.00004	x	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	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
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	<0.00004	x	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	<0.00004	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	<0.001	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	<0.001	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	<0.00004	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	<0.001	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹			0.001								
Arochlor-1016	12674-11-2	mg/L	-	x	x	x	<0.00025	x	x	x	x
Arochlor-1221	11104-28-2	mg/L	-	x	x	x	<0.00025	x	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	x	x	x	<0.00025	x	x	x	x
Arochlor-1242	53469-21-9	mg/L	-	x	x	x	<0.00025	x	x	x	x
Arochlor-1248	12672-29-6	mg/L	-	x	x	x	<0.00025	x	x	x	x
Arochlor-1254	11097-69-1	mg/L	-	x	x	x	<0.00025	x	x	x	x
Arochlor-1260	11096-82-5	mg/L	-	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	<0.000934	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	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	<0.00005	x	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	<0.001	x	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	<0.00005	x	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	<0.001	x	x	x	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	<0.001	x	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	<0.001	x	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	<0.001	x	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	<0.001	x	x	x	x
Phorate ¹	298-02-2	mg/L	-	x	x	x	<0.001	x	x	x	x
Silvex ¹ (2,4,5-TP)	93-72-1	mg/L	-	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	<0.001	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	LTS FOR MW-5					average	deviation
				12/20/12	6/26/13	6/16/16	12/27/16	6/27/17	7/15/03 to 12/2/04	7/15/03 to 12/2/04
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
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-Nitrosodinpropylamine 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

APPENDIX B

Las Cruces Foothills Landfill MW-5

Las Cruces Foothills Landfill monitoring well MW-5

constituent	CAS Number	unit	GWPS	LTS FOR MW-5					baseline	standard
				12/20/12	6/26/13	6/16/16	12/27/16	6/27/17	average	deviation
									7/15/03 to 12/2/04	7/15/03 to 12/2/04
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-228¹, 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
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	12/12/06
alpha-Chlordane ¹	5103-71-9	mg/L	-	<0.0001	alpha +	alpha +	alpha +	alpha +	alpha +	x	x	x
beta-BHC ¹	319-85-7	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	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	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	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	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	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	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	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	<0.0001	see above	see above	see above	see above	see above	x	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x
Isodrin ¹	465-73-6	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x
Kepone ¹	143-50-0	mg/L	-	<0.025	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	x	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	x
Arochlor-1221	11104-28-2	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x	x
Arochlor-1242	53469-21-9	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x	x
Arochlor-1248	12672-29-6	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x	x
Arochlor-1254	11097-69-1	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x	x
Arochlor-1260	11096-82-5	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	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	<1.30	x	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	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	x
Dimethoate ¹	60-51-5	mg/L	-	<0.0005	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	<0.005	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
Famphur ¹	52-58-7	mg/L	-	<0.0005	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
Phorate ¹	298-02-2	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	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	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	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								
				1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/20/12	6/26/13	6/16/16
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	<0.00004	x	x	x	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	<0.0002	x	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	<0.00004	x	x	x	x	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	x	<0.00004	x	x	x	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	<0.00004	x	x	x	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	<0.00004	x	x	x	x	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	<0.00004	x	x	x	x	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	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
Endrin ¹	72-20-8	mg/L	-	x	<0.00004	x	x	x	x	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	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
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	<0.00004	x	x	x	x	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	x	<0.00004	x	x	x	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	x	<0.001	x	x	x	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	x	<0.001	x	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	<0.00004	x	x	x	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	x	<0.001	x	x	x	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹			0.001									
Arochlor-1016	12674-11-2	mg/L	-	x	<0.00025	x	x	x	x	x	x	x
Arochlor-1221	11104-28-2	mg/L	-	x	<0.00025	x	x	x	x	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	x	<0.00025	x	x	x	x	x	x	x
Arochlor-1242	53469-21-9	mg/L	-	x	<0.00025	x	x	x	x	x	x	x
Arochlor-1248	12672-29-6	mg/L	-	x	<0.00025	x	x	x	x	x	x	x
Arochlor-1254	11097-69-1	mg/L	-	x	<0.00025	x	x	x	x	x	x	x
Arochlor-1260	11096-82-5	mg/L	-	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	<0.000717	x	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	x	<0.00005	x	x	x	x	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	<0.00005	x	x	x	x	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	<0.001	x	x	x	x	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	<0.00005	x	x	x	x	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	<0.001	x	x	x	x	x	x	x
Famphur ¹	52-58-7	mg/L	-	x	<0.001	x	x	x	x	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	<0.001	x	x	x	x	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	<0.001	x	x	x	x	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	<0.001	x	x	x	x	x	x	x
Phorate ¹	298-02-2	mg/L	-	x	<0.001	x	x	x	x	x	x	x
Silvex ¹ (2,4,5-TP)	93-72-1	mg/L	-	x	<0.00005	x	x	x	x	x	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	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 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 monitoring well MW-6

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

APPENDIX B

Las Cruces Foothills Landfill monitoring well MW-6

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

APPENDIX B

Las Cruces Foothills Landfill monitoring well MW-6

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

APPENDIX B

Las Cruces Foothills Landfill monitoring well MW-6

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

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	average	deviation
date				12/29/10	5/18/11	8/23/11	11/28/11	12/29/11	12/20/12	6/26/13	12/29/10 to	12/29/11 to
4-Aminobiphenyl ¹	92-67-1	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Acenaphthene ¹	83-32-9	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Acenaphthylene ¹	208-96-8	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Acetophenone ¹	98-86-2	mg/L	-	0.0125	x	x	x	x	x	x	0.0125	x
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Aniline ¹	62-53-3	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Anthracene ¹	120-12-7	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Benzidine ¹	92-87-5	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	<0.0001	x	x	x	x	x	x	<0.0001	x
Benzo (a) pyrene ¹	50-32-8	mg/L	0.0002	<0.0001	<0.00007	<0.00007	<0.00007	<0.00007	x	x	<0.0001	x
Benzo (b) fluoranthene ¹	205-99-2	mg/L	-	<0.0001	x	x	x	x	x	x	<0.0001	x
Benzo (g,h,i) perylene ¹	191-24-2	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Benzo (k) fluoranthene ¹	207-08-9	mg/L	-	<0.0001	x	x	x	x	x	x	<0.0001	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	-	<0.01	x	x	x	x	x	x	<0.01	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	<0.01	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	-	<0.01	x	x	x	x	x	x	<0.01	x
bis (2-Ethylhexyl) pththalate	117-81-7	mg/L	-	<0.005	x	x	x	x	x	x	<0.005	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Carbazole	86-74-8	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Chlorobenzilate ¹	510-15-6	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Chrysene ¹	218-01-9	mg/L	-	<0.0001	x	x	x	x	x	x	<0.0001	x
Diallate ¹	2303-16-4	mg/L	-	<0.01	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	x	x
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	<0.0001	x	x	x	x	x	x	<0.0001	x
Dibenzofuran ¹	132-84-9	mg/L	-	<0.01	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	-	<0.01	x	x	x	x	x	x	<0.01	x
Dimethylphthalate ¹	131-11-3	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Di-n-octylphthalate ¹	117-84-0	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Diphenylamine ¹	122-39-4	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Fluoranthene ¹	206-44-0	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Fluorene ¹	86-73-7	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	<0.001	x	x	x	x	x	x	<0.001	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Hexachloroethane ¹	67-72-1	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Hexachloropropene ¹	1888-71-7	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
HMX ¹	2691-41-0	mg/L	-	0.00209	<0.0001	<0.0001	x	x	x	x	<0.0001	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	<0.0001	x	x	x	x	x	x	<0.0001	x
Isophorone ¹	78-59-1	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Isosafrole ¹	120-58-1	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	<0.0001	<0.0001	<0.0001	x	x	x	x	<0.0001	x
Methapyrilene ¹	91-80-5	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Naphthalene ¹	91-20-3	mg/L	0.03	<0.01	<0.002	<0.002	<0.002	<0.002	x	x	<0.01	x
Nitrobenzene ¹	98-95-3	mg/L	-	<0.01	<0.0001	<0.0001	x	x	x	x	<0.01	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	<0.002	x	x	x	x	x	x	<0.002	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	<0.002	x	x	x	x	x	x	<0.002	x
n-Nitrosopyrrolidine ¹	100-75-4	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
o-Toluidine ¹	95-53-4	mg/L	-	<0.002	x	x	x	x	x	x	<0.002	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Phenacetin ¹	62-44-2	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Phenanthrene ¹	85-01-8	mg/L	-	<0.01	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	<0.01	x
Pronamide ¹	23950-58-5	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Pyrene ¹	129-00-0	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Pyridine	110-86-1	mg/L	-	<0.01	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	<0.0001	x
Safrole ¹	94-59-7	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x

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	average	deviation
				12/29/10	5/18/11	8/23/11	11/28/11	12/29/11	12/20/12	6/26/13	12/29/10 to	12/29/11
sym-Trinitrobenzene ¹ (1,3,5-TNB)	99-35-4	mg/L	-	<0.0001	<0.0001	<0.0001	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	<0.01	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	<0.01	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	<0.01	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	<0.01	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	<0.01	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	<0.01	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	<0.01	x
2-Chlorophenol ¹	95-57-8	mg/L	-	<0.01	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	<0.01	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	<0.01	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	<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	<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	<0.005	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Pentachlorophenol ¹	87-86-5	mg/L	-	<0.01	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	<0.01	x
Radium 226 and 228	NA	pCi/L	5	0.752	1.29	2.41	0.507	0.199	x	x	1.03	0.87
Ra-226, total	NA	pCi/L	-	0.000	0.060	2.29	0.293	0.093	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	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	<0.01	x
4,4'-DDE (p,p'-DDE) ¹	319-84-6	mg/L	-	<0.0001	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	<0.0001	x
aldrin ¹	319-86-8	mg/L	-	<0.0001	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	<0.0001	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	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	<0.0001	x
Chlordane ¹	57-74-9	mg/L	0.002	<0.005	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	<0.0001	x
Dieldrin ¹	72-55-9	mg/L	-	<0.001	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	<0.001	x
Endosulfan II (beta-Endosulfan) ¹	60-57-1	mg/L	-	<0.001	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	<0.001	x
Endrin aldehyde ¹	33213-65-9	mg/L	-	<0.001	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
Endrin ¹	72-20-8	mg/L	-	<0.001	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	<0.0001	x
gamma-Chlordane ¹	53494-70-5	mg/L	-	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	<0.001	x
Heptachlor ¹	1024-57-3	mg/L	-	<0.001	x	x	x	x	x	x	<0.001	x
Isodrin ¹	465-73-6	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Kepone ¹	143-50-0	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Methoxychlor ¹	72-43-5	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Toxaphene ¹	8001-35-2	mg/L	-	<0.001	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	<0.00025	x
Arochlor-1221	11104-28-2	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	<0.00025	x
Arochlor-1232	11141-16-5	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	<0.00025	x
Arochlor-1242	53469-21-9	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	<0.00025	x
Arochlor-1248	12672-29-6	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	<0.00025	x
Arochlor-1254	11097-69-1	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	<0.00025	x
Arochlor-1260	11096-82-5	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	<0.00025	x
Other Pesticides and Herbicides												
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	<0.000546	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	<0.0001	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	<0.0001	x	x	x	x	x	x	<0.0001	x
Dimethoate ¹	60-51-5	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Dinoseb ¹	88-85-7	mg/L	-	<0.0001	x	x	x	x	x	x	<0.0001	x
Disulfoton ¹	298-04-4	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Famphur ¹	52-58-7	mg/L	-	<0.005	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	<0.01	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	<0.01	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	<0.01	x
Phorate ¹	298-02-2	mg/L	-	<0.01	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	<0.0001	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x

^{*} 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
				date	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	12/29/10 to 12/29/11	12/29/10 to 12/29/11
4-Aminobiphenyl ¹	92-67-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
Acenaphthene ¹	83-32-9	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
Acenaphthylene ¹	208-96-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
Acetophenone ¹	98-86-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
alpha.alpha-Dimethylphenethylamine	122-09-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
Aniline ¹	62-53-3	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
Anthracene ¹	120-12-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
Benzidine ¹	92-87-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	<0.0001	x
Benzo (a) pyrene ¹	50-32-8	mg/L	0.0002	<0.0001	<0.00007	<0.00007	<0.00007	<0.00007	<0.00007	x	x	x	x	<0.0001	x
Benzo (b) fluoranthene ¹	205-99-2	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	<0.0001	x
Benzo (g,h,i) perylene ¹	191-24-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
Benzo (k) fluoranthene ¹	207-08-9	mg/L	-	<0.0001	x	x	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	x	x	x	x	x
Benzyl alcohol ¹	100-51-6	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	<0.01	x	x	x	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	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	<0.005	x	x	x	x	x	x	x	x	x	<0.005	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
Carbazole	86-74-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
Chlorobenzilate ¹	510-15-6	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
Chrysene ¹	218-01-9	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	<0.0001	x
Diallate ¹	2303-16-4	mg/L	-	<0.01	x	x	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	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	<0.0001	x
Dibenzofuran ¹	132-64-9	mg/L	-	<0.01	x	x	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	x	x	x
Diethylphthalate ¹	84-66-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
Dimethylphthalate ¹	131-11-3	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
Di-n-octylphthalate ¹	117-84-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
Diphenylamine ¹	122-39-4	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
Fluoranthene ¹	206-44-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
Fluorene ¹	86-73-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	<0.001	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
Hexachloroethane ¹	67-72-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
Hexachloropropene ¹	1888-71-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
HMX ¹	2691-41-0	mg/L	-	0.00101	<0.0001	<0.0001	x	x	x	x	x	x	x	<0.0001	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	<0.0001	x
Isophorone ¹	78-59-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
Isosafrole ¹	120-58-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	<0.0001	<0.0001	<0.0001	x	x	x	x	x	x	x	<0.0001	x
Methapyrilene ¹	91-80-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
Naphthalene ¹	91-20-3	mg/L	0.03	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	x	x	x	x	<0.01	x
Nitrobenzene ¹	98-95-3	mg/L	-	<0.01	<0.0001	<0.0001	x	x	x	x	x	x	x	<0.01	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	<0.010	x	x	x	x	x	x	x	x	x	<0.01	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	<0.002	x	x	x	x	x	x	x	x	x	<0.002	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	<0.002	x	x	x	x	x	x	x	x	x	<0.002	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
o-Toluidine ¹	95-53-4	mg/L	-	<0.002	x	x	x	x	x	x	x	x	x	<0.002	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	<0.01	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	<0.01	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	<0.01	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	<0.01	x
Phenanthrene ¹	85-01-8	mg/L	-	<0.01	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	<0.01	x
Pronamide ¹	23950-58-5	mg/L	-	<0.01	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	<0.01	x
Pyridine ¹	110-86-1	mg/L	-	<0.01	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	<0.0001	x
Safrole ¹	94-59-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x

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	12/29/10 to 12/29/11	12/29/10 to 12/29/11	
date															
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	<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	<0.01	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	<0.01	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	<0.01	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	<0.01	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	<0.01	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	<0.01	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	<0.01	x
2-Chlorophenol ¹	95-57-8	mg/L	-	<0.01	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	<0.01	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	<0.01	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	<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	<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	<0.005	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	<0.01	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	<0.01	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	<0.01	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	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	1.37	0.43
Ra-228, total	NA	pCi/L	-	8.36	7.53	5.72	4.02	2.52	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	<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	<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	<0.0001	x
aldrin ¹	309-00-2	mg/L	-	<0.01	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	<0.0001	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	-	<0.0001	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	<0.005	x
delta-BHC ¹	319-86-8	mg/L	-	<0.0001	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	<0.001	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	<0.001	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	<0.001	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	<0.001	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	<0.001	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	-	<0.001	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	<0.0001	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	-	<0.001	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	<0.001	x
Isodrin ¹	465-73-6	mg/L	-	<0.01	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	<0.01	x
Methoxychlor ¹	72-43-5	mg/L	-	<0.01	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	<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	<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	<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	<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	<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	<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	<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	<0.00025	x
Other Pesticides and Herbicides¹															
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	<0.000394	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	<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	<0.0001	x
Dimethoate ¹	60-51-5	mg/L	-	<0.01	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	<0.0001	x
Disulfoton ¹	298-04-4	mg/L	-	<0.01	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	<0.005	x
Methyl parathion ¹	298-00-0	mg/L	-	<0.01	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	<0.01	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	<0.01	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	<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	<0.0001	x
o,o-Diethyl o-2-pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	<0.01	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.

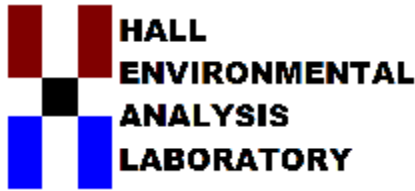
¹ hazardous

x parameter not analyzed

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

Appendix C.

**Copy of laboratory reports for the
June 27 and 28, 2017 sampling event**



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. | 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 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.
- 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-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.
- 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: 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: 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#: 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*
 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: Che Foothills Landfill Closure Monitoring Wells
 Project #: Luis Guzman
 POC: Joshua Rosenblatt
 Project Manager: Luis Guzman
lguzman@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 + TMBs (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 PCBs	8260B (VOA)	8270 (Semi-VOA)	Water: Reduced Parameters List	Air Bubbles (Y or N)
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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

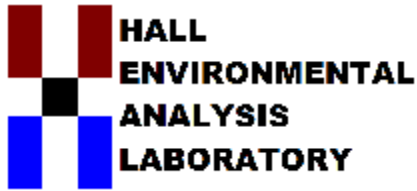
mg/L - milligrams per liter

µS/cm - microSiemens per centimeter

S.U. - standard pH units

°F - degrees Fahrenheit

ft - feet



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 over a white background.

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

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
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
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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
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	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.
- 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	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. | 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	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

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#: 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. | 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	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 # of preserved bottles checked for pH: 6 (2 or >12 unless noted)
- 13. Are matrices correctly identified on Chain of Custody? Yes No Adjusted? No
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met? Yes No Checked by: [Signature]
(If no, notify customer for authorization.)

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			

Chain-of-Custody Record

Client: City of Las Cruces
Water Quality Laboratory
 Mailing Address: P.O. Box 2000
Las Cruces, N.M. 88004
 Phone #: 575-528-3004
 email or Fax#: (575-528-3630)lgurra@las-cruces.org

QA/QC Package:
 Standard Level 4 (Full Validation)
 NELAP Other
 EDD (Type) EXCELL

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	Sample Temperature	HEAL No.
6-28-17	1020	Ground Water	FootHills MW-9	Various	Various	-001		
6-28-17	1211	Ground Water	FootHills MW-4	Various	Various	-002		
Date:	Time:	Relinquished by:		Received by:	Date	Time	Remarks:	
28-17	1500	Jacqueline Bryan		[Signature]	6/28/17	0940		
Date:	Time:	Relinquished by:		Received by:	Date	Time		

Turn-Around Time: Standard Rush
 Project Name: Chc FootHills Landfill Closure Monitoring Wells
 Project #: Luis Guerra
POC: Joshua Gasbiate
 Project Manager: Luis Guerra
lgurra@las-cruces.org
 Sampler: Jacqueline Bryan
 On Ice: Yes No
 Sample Temperature: 17.00C

Analysis Request	BTX + MTBE + TMBs (8021)	BTX + 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, NO3, NO2, PO4, SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
											X	X



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

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