wfec western farmers electric cooperative

PO Box 429 Anadarko, OK 73005 (405) 247-3351 www.wfec.com

January 22,2023

Hillary Young
Chief Engineer - Land Protection Division
Oklahoma Department of Environmental Quality
P.O. Box 1677
Oklahoma City, OK 73162

Re: Notification of Apparent Exceedances from Second 2022 Assessment Monitoring
Western Farmers Electric Cooperative – Hugo Power Station, Fort Towson, Oklahoma

Dear Ms. Young:

Western Farmers Electric Cooperative (WFEC) has been conducting assessment monitoring associated with Coal Combustion Residuals (CCR) Units at its Hugo Power Station (HPS). The second 2022 assessment monitoring was conducted October 3-6, 2022. Based upon review of data from the second 2022 assessment monitoring meeting QA/QC standards, WFEC has identified constituents listed in Appendix B of Oklahoma Administrative Code Chapter 517, Disposal of Coal Combustion Residuals from Electric Utilities (OAC 252:517) at statistically significant levels (SSLs) above the GWPS at wells associated with its Landfill CCR Unit. In particular, molybdenum was detected at SSLs above the GWPS at monitoring wells MW-15A, MW-16, MW-18, and MW-19S, where previous SSLs exceedances for molybdenum have been historically noted. This submittal addresses OAC 252:517-9-6(g), which requires the owner/operator to prepare a notification identifying OAC 252:517 Appendix B constituents detected at SSLs above the GWPS.

The laboratory reports for the second 2022 assessment monitoring of the Landfill CCR Unit monitoring wells are included in **Attachment A**. Groundwater data summary tables for the Landfill CCR Unit updated to include results from the second 2022 assessment monitoring are included in **Attachment B**.

Molybdenum has been historically detected at SSLs above the GWPS at the above mentioned wells and notifications have previously been provided to the Oklahoma Department of Environmental Quality (ODEQ). A Plan and Schedule for Analyzing SSIs for Molybdenum (Altamira; March 4, 2020) was submitted to and approved for implementation by ODEQ in its letter dated April 28, 2020. An Assessment of Corrective Measures (ACM) Report was submitted on October 29, 2020 and semi-annual sampling as proposed to establish the effectiveness of monitored natural attenuation as a groundwater remedy is underway. Molybdenum concentrations appear to have decreased in these wells over the sampling history and reported molybdenum concentrations from the second 2022 assessment monitoring are lower than those from the first 2022 sampling at MW-15A, MW-18, and MW-19S.

Other than as discussed above, no OAC 252:517 Appendix B constituents were detected at SSLs above the GWPS in monitoring wells associated with the Landfill CCR Unit. Also, no OAC 252:517 Appendix B constituents were detected at SSLs above the GWPS in monitoring wells associated with the Surface Impoundment CCR Unit.

Sincerely,

Kent Fletcher

Kent Fletcher
Environmental Coordinator

Attachments

cc: John McCreight / WFEC
Chris Schaefer and Bert Smith / Altamira-US, LLC.

ATTACHMENT A

SECOND 2022 ASSESSMENT MONITORING – OCTOBER 2022
LABORATORY REPORT
(LANDFILL CCR UNIT)

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
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January 04, 2023

Heather Tiffany
Altamira
525 central park Dr
Suite 500
Oklahoma City, OK 73013

Work Order: **HS22100361**

Laboratory Results for: **WFEC / CCR Landfill**

Dear Heather Tiffany,

ALS Environmental received 13 sample(s) on Oct 07, 2022 for the analysis presented in the following report.

This is a REVISED REPORT. Please see the Case Narrative for discussion concerning this revision.

Regards,

Generated By: JUMOKE.LAWAL
Anna Kinchen
Project Manager

Client: Altamira
Project: WFEC / CCR Landfill
Work Order: HS22100361

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS22100361-01	MW-3	Water		05-Oct-2022 18:16	07-Oct-2022 09:00	☐
HS22100361-02	MW-5S	Water		06-Oct-2022 11:30	07-Oct-2022 09:00	☐
HS22100361-03	MW-7S	Water		05-Oct-2022 15:20	07-Oct-2022 09:00	☐
HS22100361-04	MW-13	Water		05-Oct-2022 18:12	07-Oct-2022 09:00	☐
HS22100361-05	MW-19S	Water		06-Oct-2022 09:40	07-Oct-2022 09:00	☐
HS22100361-06	MW-20	Water		05-Oct-2022 16:48	07-Oct-2022 09:00	☐
HS22100361-07	MW-21	Water		05-Oct-2022 15:40	07-Oct-2022 09:00	☐
HS22100361-08	MW-14A	Water		06-Oct-2022 14:51	07-Oct-2022 09:00	☐
HS22100361-09	MW-15A	Water		06-Oct-2022 13:03	07-Oct-2022 09:00	☐
HS22100361-10	MW-17	Water		06-Oct-2022 15:33	07-Oct-2022 09:00	☐
HS22100361-11	MW-18	Water		06-Oct-2022 14:05	07-Oct-2022 09:00	☐
HS22100361-12	MW-16	Water		06-Oct-2022 17:30	08-Oct-2022 09:00	☐
HS22100361-13	DUP-3	Water		05-Oct-2022 15:20	07-Oct-2022 09:00	☐

Revision:2

Client: Altamira **CASE NARRATIVE**
Project: WFEC / CCR Landfill
Work Order: HS22100361

Work Order Comments

- Revised this report on 01-04-23 to include Alkalinity for sample MW-7S (HS22100361-03). Due to lab error, this sample was analyzed out of hold.
  Results are flagged with "H" and should be considered estimated.

Work Order Comments

- Revised this report on 12-12-2022 to include Mercury for samples MW-19S (HS22100361-05), MW-14A (HS22100361-08), MW-15A (HS22100361-09), MW-17 (HS22100361-10) and MW-18 (HS22100361-11). Added pH, TDS and Cond to sample MW-7S (HS22100361-03). Added pH and TDS to sample Dup-3 (HS22100361-13). Due to lab error, these samples were analyzed out of hold.
  Results are flagged with "H" and should be considered estimated.

- Sample received outside method holding time for pH. pH is an immediate test. Sample results are flagged with an "H" qualifier.

  The temperature at the time of pH is reported. Please note that all pH results are already normalized to a temperature of 25 °C.

- The analyses for Radium-226 and Radium-228 were subcontracted to GEL Laboratories in Charleston, SC. Final reports attached.

Work Order Comments

- Login Notes:
  Limited volume for MW-16, Sulfide only 50ml and unpreserved volume only 100ml received.

Metals by Method SW6020A

Batch ID: 184802

Sample ID: MW-19S (HS22100361-05MS)

- The MS and/or MSD recovery was outside of the control limits; however, the result in the parent sample is greater than 4x the spike amount. (Boron,Calcium,Molybdenum,Potassium,Sodium)

Sample ID: MW-19S (HS22100361-05PDS)

- The PDS recovery was outside method control limits, however the result in the parent sample is greater than 4x the spike amount. (Molybdenum)

Batch ID: 184803

Sample ID: MW-19S (HS22100361-05MS)

- The MS and/or MSD recovery was outside of the control limits; however, the result in the parent sample is greater than 4x the spike amount. (Molybdenum)

Metals by Method SW7470A

Batch ID: 184786

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Batch ID: 187029

- Samples analyzed out of hold due to lab error. Results should be considered estimated.

Wet Chemistry by Method SM4500H+ B

Batch ID: R423301,R419006,R419091

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Client: Altamira **CASE NARRATIVE**
Project: WFEC / CCR Landfill
Work Order: HS22100361

Wet Chemistry by Method M2540C

Batch ID: R423392

• Samples analyzed out of hold due to lab error. Results should be considered estimated.

Wet Chemistry by Method E300

Batch ID: R418890

Sample ID: HS22100357-01MS

• MS and MSD are for an unrelated sample

Sample ID: MW-19S (HS22100361-05MS)

• MS and/or MSD recovered outside control limits for Nitrogen, Nitrite (As N)

The MS and/or MSD recovery was outside of the control limits; however, the result in the parent sample is greater than 4x the spike amount. Sulfate

Batch ID: R418893

Sample ID: HS22100190-10MS

• MS and MSD are for an unrelated sample

Batch ID: R418914

Sample ID: MW-16 (HS22100361-12MS)

• The MS and/or MSD recovery was outside of the control limits; however, the result in the parent sample is greater than 4x the spike amount. Sulfate

Wet Chemistry by Method SM3500FED

Batch ID: R418882,R418883,R418923,R418924

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E410.4

Batch ID: R419458

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method M2510 B

Batch ID: R419447,R423401

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method M2540C

Batch ID: R419366,R419454

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Client: Altamira **CASE NARRATIVE**
Project: WFEC / CCR Landfill
Work Order: HS22100361

WetChemistry by Method SM4500 S2-F

Batch ID: R419364,R419523

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SM2320B

Batch ID: R419195,R419513

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Client: Altamira
Project: WFEC / CCR Landfill
Sample ID: MW-3
Collection Date: 05-Oct-2022 18:16

ANALYTICAL REPORT
WorkOrder:HS22100361
Lab ID:HS22100361-01
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 13-Oct-2022		Analyst: JHD
Antimony	U		0.000400	0.00200	mg/L	1	14-Oct-2022 20:58
Arsenic	U		0.000400	0.00200	mg/L	1	14-Oct-2022 20:58
Barium	**0.0108**		**0.00190**	**0.00400**	**mg/L**	1	14-Oct-2022 20:58
Beryllium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 20:58
Boron	**1.09**		**0.110**	**0.200**	**mg/L**	10	17-Oct-2022 13:26
Cadmium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 20:58
Calcium	**184**		**0.340**	**5.00**	**mg/L**	10	17-Oct-2022 13:26
Chromium	U		0.000400	0.00400	mg/L	1	14-Oct-2022 20:58
Cobalt	U		0.000200	0.00500	mg/L	1	14-Oct-2022 20:58
Lead	U		0.000600	0.00200	mg/L	1	14-Oct-2022 20:58
Lithium	**0.130**		**0.00100**	**0.00500**	**mg/L**	1	14-Oct-2022 20:58
Molybdenum	U		0.000600	0.00500	mg/L	1	14-Oct-2022 20:58
Selenium	U		0.00110	0.00200	mg/L	1	14-Oct-2022 20:58
Thallium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 20:58
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 13-Oct-2022		Analyst: MSC
Mercury	U		0.0000300	0.000200	mg/L	1	13-Oct-2022 14:13
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**12.5**		**0.200**	**0.500**	**mg/L**	1	07-Oct-2022 12:26
Fluoride	**0.238**		**0.0500**	**0.100**	**mg/L**	1	07-Oct-2022 12:26
Nitrogen, Nitrate (As N)	**0.0481**	J	**0.0300**	**0.100**	**mg/L**	1	07-Oct-2022 12:26
Sulfate	**1,050**		**4.00**	**10.0**	**mg/L**	20	07-Oct-2022 13:03
CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993		**Method:E410.4**					Analyst: TH
Chemical Oxygen Demand	**12.0**	J	**5.00**	**15.0**	**mg/L**	1	14-Oct-2022 15:30
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: TH
Specific Conductivity	**2,660**		**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	14-Oct-2022 14:00
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: CWG
Total Dissolved Solids (Residue, Filterable)	**1,900**		**5.00**	**10.0**	**mg/L**	1	12-Oct-2022 18:14
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: MZD
pH	**7.33**	H	**0.100**	**0.100**	**pH Units**	1	10-Oct-2022 15:15
Temp Deg C @pH	**20.8**	H	**0**	**0**	**°C**	1	10-Oct-2022 15:15
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	30-Nov-2022 09:14
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	30-Nov-2022 09:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Revision: 2

Client: Altamira
Project: WFEC / CCR Landfill
Sample ID: MW-5S
Collection Date: 06-Oct-2022 11:30

ANALYTICAL REPORT
WorkOrder:HS22100361
Lab ID:HS22100361-02
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
FERRIC IRON - BY CALCULATION BY SM3500FED		**Method:SM3500FED**					Analyst: JHD
Ferric Iron	U		0.0200	0.0500	mg/L	1	17-Oct-2022 16:11
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		**Method:SM3500FED (dissolved)**					Analyst: JHD
Ferric Iron, Dissolved	U		0.0200	0.0500	mg/L	1	17-Oct-2022 17:04
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 13-Oct-2022		Analyst: JHD
Antimony	U		0.000400	0.00200	mg/L	1	14-Oct-2022 21:00
Arsenic	**0.000433**	J	**0.000400**	**0.00200**	**mg/L**	1	14-Oct-2022 21:00
Barium	**0.00653**		**0.00190**	**0.00400**	**mg/L**	1	14-Oct-2022 21:00
Beryllium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:00
Boron	**2.94**		**0.110**	**0.200**	**mg/L**	10	17-Oct-2022 13:28
Cadmium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:00
Calcium	**24.1**		**0.0340**	**0.500**	**mg/L**	1	14-Oct-2022 21:00
Chromium	U		0.000400	0.00400	mg/L	1	14-Oct-2022 21:00
Cobalt	U		0.000200	0.00500	mg/L	1	14-Oct-2022 21:00
Iron	U		0.0120	0.200	mg/L	1	14-Oct-2022 21:00
Lead	U		0.000600	0.00200	mg/L	1	14-Oct-2022 21:00
Lithium	**0.0572**		**0.00100**	**0.00500**	**mg/L**	1	14-Oct-2022 21:00
Magnesium	**4.79**		**0.0100**	**0.200**	**mg/L**	1	14-Oct-2022 21:00
Molybdenum	**0.00210**	J	**0.000600**	**0.00500**	**mg/L**	1	14-Oct-2022 21:00
Potassium	**4.17**		**0.0180**	**0.200**	**mg/L**	1	14-Oct-2022 21:00
Selenium	U		0.00110	0.00200	mg/L	1	14-Oct-2022 21:00
Sodium	**387**		**0.140**	**2.00**	**mg/L**	10	17-Oct-2022 13:28
Thallium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:00
DISSOLVED METALS BY SW6020A		**Method:SW6020A (dissolved)**			Prep:SW3010A / 13-Oct-2022		Analyst: JHD
Iron	U		0.0120	0.200	mg/L	1	13-Oct-2022 23:50
Molybdenum	**0.00232**	J	**0.000600**	**0.00500**	**mg/L**	1	13-Oct-2022 23:50
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 13-Oct-2022		Analyst: MSC
Mercury	U		0.0000300	0.000200	mg/L	1	13-Oct-2022 14:15
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**25.6**		**0.200**	**0.500**	**mg/L**	1	07-Oct-2022 12:32
Fluoride	**1.40**		**0.0500**	**0.100**	**mg/L**	1	07-Oct-2022 12:32
Nitrogen, Nitrate (As N)	**0.243**		**0.0300**	**0.100**	**mg/L**	1	07-Oct-2022 12:32
Sulfate	**482**		**4.00**	**10.0**	**mg/L**	20	07-Oct-2022 13:41
CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993		**Method:E410.4**					Analyst: TH
Chemical Oxygen Demand	**7.00**	J	**5.00**	**15.0**	**mg/L**	1	14-Oct-2022 15:30
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: TH
Specific Conductivity	**1,990**		**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	14-Oct-2022 14:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Revision: 2

Client: Altamira
Project: WFEC / CCR Landfill
Sample ID: MW-5S
Collection Date: 06-Oct-2022 11:30

ANALYTICAL REPORT
WorkOrder:HS22100361
Lab ID:HS22100361-02
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**1,100**		**5.00**	**10.0**	**mg/L**	1	13-Oct-2022 17:25
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: JAC
Alkalinity, Bicarbonate (As CaCO3)	**430**		**5.00**	**5.00**	**mg/L**	1	12-Oct-2022 03:16
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	12-Oct-2022 03:16
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	12-Oct-2022 03:16
Alkalinity, Total (As CaCO3)	**430**		**5.00**	**5.00**	**mg/L**	1	12-Oct-2022 03:16
FERROUS IRON BY SM3500 FE B		**Method:SM3500FED**					Analyst: MZD
Ferrous Iron	U		0.0200	0.0500	mg/L	1	07-Oct-2022 14:25
FERROUS IRON BY SM3500 FE D		**Method:SM3500FED (dissolved)**					Analyst: MZD
Ferrous Iron, Dissolved	U		0.0200	0.0500	mg/L	1	07-Oct-2022 18:35
SULFIDE BY SM4500 S2-F-2011		**Method:SM4500 S2-F**					Analyst: MZD
Sulfide	U		1.00	1.00	mg/L	1	13-Oct-2022 17:52
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: MZD
pH	**7.89**	H	**0.100**	**0.100**	**pH Units**	1	11-Oct-2022 13:04
Temp Deg C @pH	**20.5**	H	**0**	**0**	**°C**	1	11-Oct-2022 13:04
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	30-Nov-2022 09:14
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	30-Nov-2022 09:14

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Client: Altamira
Project: WFEC / CCR Landfill
Sample ID: MW-7S
Collection Date: 05-Oct-2022 15:20

ANALYTICAL REPORT
WorkOrder:HS22100361
Lab ID:HS22100361-03
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
FERRIC IRON - BY CALCULATION BY SM3500FED		**Method:SM3500FED**					Analyst: JHD
Ferric Iron	**0.0310**	J	**0.0200**	**0.0500**	**mg/L**	1	17-Oct-2022 16:11
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		**Method:SM3500FED (dissolved)**					Analyst: JHD
Ferric Iron, Dissolved	U		0.0200	0.0500	mg/L	1	17-Oct-2022 17:04
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 13-Oct-2022		Analyst: JHD
Antimony	U		0.000400	0.00200	mg/L	1	14-Oct-2022 21:02
Arsenic	U		0.000400	0.00200	mg/L	1	14-Oct-2022 21:02
Barium	**0.0148**		**0.00190**	**0.00400**	**mg/L**	1	14-Oct-2022 21:02
Beryllium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:02
Boron	**2.70**		**0.110**	**0.200**	**mg/L**	10	17-Oct-2022 13:30
Cadmium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:02
Calcium	**100**		**0.0340**	**0.500**	**mg/L**	1	14-Oct-2022 21:02
Chromium	**0.000669**	J	**0.000400**	**0.00400**	**mg/L**	1	14-Oct-2022 21:02
Cobalt	U		0.000200	0.00500	mg/L	1	14-Oct-2022 21:02
Iron	**0.158**	J	**0.0120**	**0.200**	**mg/L**	1	14-Oct-2022 21:02
Lead	U		0.000600	0.00200	mg/L	1	14-Oct-2022 21:02
Lithium	**0.0685**		**0.00100**	**0.00500**	**mg/L**	1	14-Oct-2022 21:02
Magnesium	**12.2**		**0.0100**	**0.200**	**mg/L**	1	14-Oct-2022 21:02
Molybdenum	**0.00103**	J	**0.000600**	**0.00500**	**mg/L**	1	14-Oct-2022 21:02
Potassium	**5.34**		**0.0180**	**0.200**	**mg/L**	1	14-Oct-2022 21:02
Selenium	U		0.00110	0.00200	mg/L	1	14-Oct-2022 21:02
Sodium	**313**		**0.140**	**2.00**	**mg/L**	10	17-Oct-2022 13:30
Thallium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:02
DISSOLVED METALS BY SW6020A		**Method:SW6020A (dissolved)**			Prep:SW3010A / 13-Oct-2022		Analyst: JHD
Iron	**0.113**	J	**0.0120**	**0.200**	**mg/L**	1	13-Oct-2022 23:52
Molybdenum	**0.00112**	J	**0.000600**	**0.00500**	**mg/L**	1	13-Oct-2022 23:52
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 13-Oct-2022		Analyst: MSC
Mercury	U		0.0000300	0.000200	mg/L	1	13-Oct-2022 14:16
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**16.9**		**0.200**	**0.500**	**mg/L**	1	07-Oct-2022 15:00
Fluoride	**0.711**		**0.0500**	**0.100**	**mg/L**	1	07-Oct-2022 15:00
Nitrogen, Nitrate (As N)	**0.155**		**0.0300**	**0.100**	**mg/L**	1	07-Oct-2022 15:00
Sulfate	**687**		**4.00**	**10.0**	**mg/L**	20	07-Oct-2022 19:30
CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993		**Method:E410.4**					Analyst: TH
Chemical Oxygen Demand	U		5.00	15.0	mg/L	1	14-Oct-2022 15:30
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: MZD
Specific Conductivity	**2,000**	H	**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	07-Dec-2022 14:57

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Client: Altamira
Project: WFEC / CCR Landfill
Sample ID: MW-7S
Collection Date: 05-Oct-2022 15:20

ANALYTICAL REPORT
WorkOrder:HS22100361
Lab ID:HS22100361-03
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: CWG
Total Dissolved Solids (Residue, Filterable)	**1,350**	H	**5.00**	**10.0**	**mg/L**	1	06-Dec-2022 13:49
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: JAC
Alkalinity, Bicarbonate (As CaCO3)	**326**	H	**5.00**	**5.00**	**mg/L**	1	19-Dec-2022 12:35
Alkalinity, Carbonate (As CaCO3)	U	H	5.00	5.00	mg/L	1	19-Dec-2022 12:35
Alkalinity, Hydroxide (As CaCO3)	U	H	5.00	5.00	mg/L	1	19-Dec-2022 12:35
Alkalinity, Total (As CaCO3)	**326**	H	**5.00**	**5.00**	**mg/L**	1	19-Dec-2022 12:35
FERROUS IRON BY SM3500 FE B		**Method:SM3500FED**					Analyst: MZD
Ferrous Iron	**0.127**		**0.0200**	**0.0500**	**mg/L**	1	07-Oct-2022 14:25
FERROUS IRON BY SM3500 FE D		**Method:SM3500FED (dissolved)**					Analyst: MZD
Ferrous Iron, Dissolved	**0.117**		**0.0200**	**0.0500**	**mg/L**	1	07-Oct-2022 14:21
SULFIDE BY SM4500 S2-F-2011		**Method:SM4500 S2-F**					Analyst: MZD
Sulfide	U		1.00	1.00	mg/L	1	12-Oct-2022 16:00
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: CD
pH	**7.81**	H	**0.100**	**0.100**	**pH Units**	1	06-Dec-2022 14:53
Temp Deg C @pH	**20.8**	H	**0**	**0**	**°C**	1	06-Dec-2022 14:53
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	30-Nov-2022 09:14
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	30-Nov-2022 09:14

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Client: Altamira
Project: WFEC / CCR Landfill
Sample ID: MW-13
Collection Date: 05-Oct-2022 18:12

ANALYTICAL REPORT
WorkOrder:HS22100361
Lab ID:HS22100361-04
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 13-Oct-2022		Analyst: JHD
Antimony	U		0.000400	0.00200	mg/L	1	14-Oct-2022 21:04
Arsenic	**0.000423**	J	**0.000400**	**0.00200**	**mg/L**	1	14-Oct-2022 21:04
Barium	**0.0100**		**0.00190**	**0.00400**	**mg/L**	1	14-Oct-2022 21:04
Beryllium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:04
Boron	**3.08**		**0.110**	**0.200**	**mg/L**	10	17-Oct-2022 13:32
Cadmium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:04
Calcium	**135**		**0.0340**	**0.500**	**mg/L**	1	14-Oct-2022 21:04
Chromium	U		0.000400	0.00400	mg/L	1	14-Oct-2022 21:04
Cobalt	U		0.000200	0.00500	mg/L	1	14-Oct-2022 21:04
Lead	U		0.000600	0.00200	mg/L	1	14-Oct-2022 21:04
Lithium	**0.131**		**0.00100**	**0.00500**	**mg/L**	1	14-Oct-2022 21:04
Molybdenum	**0.00101**	J	**0.000600**	**0.00500**	**mg/L**	1	14-Oct-2022 21:04
Selenium	U		0.00110	0.00200	mg/L	1	14-Oct-2022 21:04
Thallium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:04
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 13-Oct-2022		Analyst: MSC
Mercury	U		0.0000300	0.000200	mg/L	1	13-Oct-2022 14:18
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**14.4**		**0.200**	**0.500**	**mg/L**	1	07-Oct-2022 12:37
Fluoride	**0.263**		**0.0500**	**0.100**	**mg/L**	1	07-Oct-2022 12:37
Nitrogen, Nitrate (As N)	**0.297**		**0.0300**	**0.100**	**mg/L**	1	07-Oct-2022 12:37
Sulfate	**1,380**		**4.00**	**10.0**	**mg/L**	20	07-Oct-2022 13:46
CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993		**Method:E410.4**					Analyst: TH
Chemical Oxygen Demand	**13.0**	J	**5.00**	**15.0**	**mg/L**	1	14-Oct-2022 15:30
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: TH
Specific Conductivity	**3,250**		**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	14-Oct-2022 14:00
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: CWG
Total Dissolved Solids (Residue, Filterable)	**2,460**		**5.00**	**10.0**	**mg/L**	1	12-Oct-2022 18:14
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: MZD
pH	**7.33**	H	**0.100**	**0.100**	**pH Units**	1	10-Oct-2022 15:15
Temp Deg C @pH	**21.0**	H	**0**	**0**	**°C**	1	10-Oct-2022 15:15
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	30-Nov-2022 09:14
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	30-Nov-2022 09:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Revision: 2

Client: Altamira
Project: WFEC / CCR Landfill
Sample ID: MW-19S
Collection Date: 06-Oct-2022 09:40

ANALYTICAL REPORT
WorkOrder:HS22100361
Lab ID:HS22100361-05
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
FERRIC IRON - BY CALCULATION BY SM3500FED		**Method:SM3500FED**					Analyst: JHD
Ferric Iron	U		0.0200	0.0500	mg/L	1	17-Oct-2022 16:11
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		**Method:SM3500FED (dissolved)**					Analyst: JHD
Ferric Iron, Dissolved	U		0.0200	0.0500	mg/L	1	17-Oct-2022 17:04
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 13-Oct-2022		Analyst: JHD
Antimony	U		0.000400	0.00200	mg/L	1	14-Oct-2022 20:42
Arsenic	**0.00720**		**0.000400**	**0.00200**	**mg/L**	1	14-Oct-2022 20:42
Barium	**0.0164**		**0.00190**	**0.00400**	**mg/L**	1	14-Oct-2022 20:42
Beryllium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 20:42
Boron	**8.43**		**0.220**	**0.400**	**mg/L**	20	17-Oct-2022 14:54
Cadmium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 20:42
Calcium	**40.7**		**0.0340**	**0.500**	**mg/L**	1	14-Oct-2022 20:42
Chromium	U		0.000400	0.00400	mg/L	1	14-Oct-2022 20:42
Cobalt	U		0.000200	0.00500	mg/L	1	14-Oct-2022 20:42
Iron	U		0.0120	0.200	mg/L	1	14-Oct-2022 20:42
Lead	U		0.000600	0.00200	mg/L	1	14-Oct-2022 20:42
Lithium	**0.00111**	J	**0.00100**	**0.00500**	**mg/L**	1	14-Oct-2022 20:42
Magnesium	**0.0228**	J	**0.0100**	**0.200**	**mg/L**	1	14-Oct-2022 20:42
Molybdenum	**0.430**		**0.000600**	**0.00500**	**mg/L**	1	14-Oct-2022 20:42
Potassium	**37.7**		**0.0180**	**0.200**	**mg/L**	1	14-Oct-2022 20:42
Selenium	**0.00944**		**0.00110**	**0.00200**	**mg/L**	1	14-Oct-2022 20:42
Sodium	**752**		**0.280**	**4.00**	**mg/L**	20	17-Oct-2022 14:54
Thallium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 20:42
DISSOLVED METALS BY SW6020A		**Method:SW6020A (dissolved)**			Prep:SW3010A / 13-Oct-2022		Analyst: JHD
Iron	U		0.0120	0.200	mg/L	1	13-Oct-2022 23:37
Molybdenum	**0.413**		**0.000600**	**0.00500**	**mg/L**	1	13-Oct-2022 23:37
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 06-Dec-2022		Analyst: MSC
Mercury	U	H	0.0000300	0.000200	mg/L	1	07-Dec-2022 09:46
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**13.3**		**0.200**	**0.500**	**mg/L**	1	07-Oct-2022 12:11
Fluoride	**1.59**		**0.0500**	**0.100**	**mg/L**	1	07-Oct-2022 12:11
Nitrogen, Nitrate (As N)	U		0.0300	0.100	mg/L	1	07-Oct-2022 12:11
Sulfate	**1,480**		**10.0**	**25.0**	**mg/L**	50	07-Oct-2022 12:58
CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993		**Method:E410.4**					Analyst: TH
Chemical Oxygen Demand	**18.0**		**5.00**	**15.0**	**mg/L**	1	14-Oct-2022 15:30
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: TH
Specific Conductivity	**3,570**		**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	14-Oct-2022 14:00

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Client: Altamira
Project: WFEC / CCR Landfill
Sample ID: MW-19S
Collection Date: 06-Oct-2022 09:40

ANALYTICAL REPORT
WorkOrder:HS22100361
Lab ID:HS22100361-05
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**2,210**		**5.00**	**10.0**	**mg/L**	1	13-Oct-2022 17:25
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: JAC
Alkalinity, Bicarbonate (As CaCO3)	U		5.00	5.00	mg/L	1	12-Oct-2022 00:31
Alkalinity, Carbonate (As CaCO3)	**61.0**		**5.00**	**5.00**	**mg/L**	1	12-Oct-2022 00:31
Alkalinity, Hydroxide (As CaCO3)	**68.7**		**5.00**	**5.00**	**mg/L**	1	12-Oct-2022 00:31
Alkalinity, Total (As CaCO3)	**130**		**5.00**	**5.00**	**mg/L**	1	12-Oct-2022 00:31
FERROUS IRON BY SM3500 FE B		**Method:SM3500FED**					Analyst: MZD
Ferrous Iron	**0.0230**	J	**0.0200**	**0.0500**	**mg/L**	1	07-Oct-2022 14:25
FERROUS IRON BY SM3500 FE D		**Method:SM3500FED (dissolved)**					Analyst: MZD
Ferrous Iron, Dissolved	U		0.0200	0.0500	mg/L	1	07-Oct-2022 18:35
SULFIDE BY SM4500 S2-F-2011		**Method:SM4500 S2-F**					Analyst: MZD
Sulfide	U		1.00	1.00	mg/L	1	13-Oct-2022 17:52
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: MZD
pH	**10.8**	H	**0.100**	**0.100**	**pH Units**	1	11-Oct-2022 13:04
Temp Deg C @pH	**20.2**	H	**0**	**0**	**°C**	1	11-Oct-2022 13:04
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	30-Nov-2022 09:14
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	30-Nov-2022 09:14

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Client: Altamira
Project: WFEC / CCR Landfill
Sample ID: MW-20
Collection Date: 05-Oct-2022 16:48

ANALYTICAL REPORT
WorkOrder:HS22100361
Lab ID:HS22100361-06
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 13-Oct-2022		Analyst: JHD
Antimony	U		0.000400	0.00200	mg/L	1	14-Oct-2022 21:06
Arsenic	U		0.000400	0.00200	mg/L	1	14-Oct-2022 21:06
Barium	**0.01000**		**0.00190**	**0.00400**	**mg/L**	1	14-Oct-2022 21:06
Beryllium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:06
Boron	**0.837**		**0.0110**	**0.0200**	**mg/L**	1	14-Oct-2022 21:06
Cadmium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:06
Calcium	**358**		**0.340**	**5.00**	**mg/L**	10	17-Oct-2022 13:48
Chromium	U		0.000400	0.00400	mg/L	1	14-Oct-2022 21:06
Cobalt	U		0.000200	0.00500	mg/L	1	14-Oct-2022 21:06
Lead	U		0.000600	0.00200	mg/L	1	14-Oct-2022 21:06
Lithium	**0.108**		**0.00100**	**0.00500**	**mg/L**	1	14-Oct-2022 21:06
Molybdenum	U		0.000600	0.00500	mg/L	1	14-Oct-2022 21:06
Selenium	U		0.00110	0.00200	mg/L	1	14-Oct-2022 21:06
Thallium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:06
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 13-Oct-2022		Analyst: MSC
Mercury	U		0.0000300	0.000200	mg/L	1	13-Oct-2022 14:20
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**5.39**		**0.200**	**0.500**	**mg/L**	1	07-Oct-2022 12:42
Fluoride	**0.209**		**0.0500**	**0.100**	**mg/L**	1	07-Oct-2022 12:42
Nitrogen, Nitrate (As N)	U		0.0300	0.100	mg/L	1	07-Oct-2022 12:42
Sulfate	**950**		**10.0**	**25.0**	**mg/L**	50	07-Oct-2022 13:51
CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993		**Method:E410.4**					Analyst: TH
Chemical Oxygen Demand	U		5.00	15.0	mg/L	1	14-Oct-2022 15:30
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: TH
Specific Conductivity	**2,270**		**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	14-Oct-2022 14:00
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: CWG
Total Dissolved Solids (Residue, Filterable)	**1,760**		**5.00**	**10.0**	**mg/L**	1	12-Oct-2022 18:14
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: MZD
pH	**7.03**	H	**0.100**	**0.100**	**pH Units**	1	10-Oct-2022 15:15
Temp Deg C @pH	**20.9**	H	**0**	**0**	**°C**	1	10-Oct-2022 15:15
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	30-Nov-2022 09:14
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	30-Nov-2022 09:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Revision: 2

Client: Altamira
Project: WFEC / CCR Landfill
Sample ID: MW-21
Collection Date: 05-Oct-2022 15:40

ANALYTICAL REPORT
WorkOrder:HS22100361
Lab ID:HS22100361-07
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 13-Oct-2022		Analyst: JHD
Antimony	U		0.000400	0.00200	mg/L	1	14-Oct-2022 21:11
Arsenic	**0.000569**	J	**0.000400**	**0.00200**	**mg/L**	1	14-Oct-2022 21:11
Barium	**0.00932**		**0.00190**	**0.00400**	**mg/L**	1	14-Oct-2022 21:11
Beryllium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:11
Boron	**2.36**		**0.110**	**0.200**	**mg/L**	10	17-Oct-2022 13:50
Cadmium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:11
Calcium	**140**		**0.0340**	**0.500**	**mg/L**	1	14-Oct-2022 21:11
Chromium	U		0.000400	0.00400	mg/L	1	14-Oct-2022 21:11
Cobalt	U		0.000200	0.00500	mg/L	1	14-Oct-2022 21:11
Lead	U		0.000600	0.00200	mg/L	1	14-Oct-2022 21:11
Lithium	**0.144**		**0.00100**	**0.00500**	**mg/L**	1	14-Oct-2022 21:11
Molybdenum	U		0.000600	0.00500	mg/L	1	14-Oct-2022 21:11
Selenium	U		0.00110	0.00200	mg/L	1	14-Oct-2022 21:11
Thallium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:11
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 13-Oct-2022		Analyst: MSC
Mercury	U		0.0000300	0.000200	mg/L	1	13-Oct-2022 14:35
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**21.8**		**0.200**	**0.500**	**mg/L**	1	07-Oct-2022 12:48
Fluoride	**0.445**		**0.0500**	**0.100**	**mg/L**	1	07-Oct-2022 12:48
Nitrogen, Nitrate (As N)	**0.280**		**0.0300**	**0.100**	**mg/L**	1	07-Oct-2022 12:48
Sulfate	**1,440**		**10.0**	**25.0**	**mg/L**	50	07-Oct-2022 13:56
CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993		**Method:E410.4**					Analyst: TH
Chemical Oxygen Demand	**16.0**		**5.00**	**15.0**	**mg/L**	1	14-Oct-2022 15:30
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: TH
Specific Conductivity	**3,530**		**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	14-Oct-2022 14:00
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: CWG
Total Dissolved Solids (Residue, Filterable)	**2,440**		**5.00**	**10.0**	**mg/L**	1	12-Oct-2022 18:14
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: MZD
pH	**7.42**	H	**0.100**	**0.100**	**pH Units**	1	10-Oct-2022 15:15
Temp Deg C @pH	**21.1**	H	**0**	**0**	**°C**	1	10-Oct-2022 15:15
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	30-Nov-2022 09:14
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	30-Nov-2022 09:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Revision: 2

Client: Altamira
Project: WFEC / CCR Landfill
Sample ID: MW-14A
Collection Date: 06-Oct-2022 14:51

ANALYTICAL REPORT
WorkOrder:HS22100361
Lab ID:HS22100361-08
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
FERRIC IRON - BY CALCULATION BY SM3500FED		**Method:SM3500FED**					Analyst: JHD
Ferric Iron	**0.225**		**0.0200**	**0.0500**	**mg/L**	1	17-Oct-2022 16:11
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		**Method:SM3500FED (dissolved)**					Analyst: JHD
Ferric Iron, Dissolved	U		0.0200	0.0500	mg/L	1	17-Oct-2022 17:04
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 13-Oct-2022		Analyst: JHD
Antimony	U		0.000400	0.00200	mg/L	1	14-Oct-2022 21:13
Arsenic	U		0.000400	0.00200	mg/L	1	14-Oct-2022 21:13
Barium	**0.0103**		**0.00190**	**0.00400**	**mg/L**	1	14-Oct-2022 21:13
Beryllium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:13
Boron	**1.01**		**0.110**	**0.200**	**mg/L**	10	17-Oct-2022 13:52
Cadmium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:13
Calcium	**313**		**0.340**	**5.00**	**mg/L**	10	17-Oct-2022 13:52
Chromium	**0.000465**	J	**0.000400**	**0.00400**	**mg/L**	1	14-Oct-2022 21:13
Cobalt	U		0.000200	0.00500	mg/L	1	14-Oct-2022 21:13
Iron	**0.803**		**0.0120**	**0.200**	**mg/L**	1	14-Oct-2022 21:13
Lead	U		0.000600	0.00200	mg/L	1	14-Oct-2022 21:13
Lithium	**0.158**		**0.00100**	**0.00500**	**mg/L**	1	14-Oct-2022 21:13
Magnesium	**25.4**		**0.0100**	**0.200**	**mg/L**	1	14-Oct-2022 21:13
Molybdenum	U		0.000600	0.00500	mg/L	1	14-Oct-2022 21:13
Potassium	**7.80**		**0.0180**	**0.200**	**mg/L**	1	14-Oct-2022 21:13
Selenium	U		0.00110	0.00200	mg/L	1	14-Oct-2022 21:13
Sodium	**424**		**0.140**	**2.00**	**mg/L**	10	17-Oct-2022 13:52
Thallium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:13
DISSOLVED METALS BY SW6020A		**Method:SW6020A (dissolved)**			Prep:SW3010A / 13-Oct-2022		Analyst: JHD
Iron	**0.475**		**0.0120**	**0.200**	**mg/L**	1	13-Oct-2022 23:54
Molybdenum	U		0.000600	0.00500	mg/L	1	13-Oct-2022 23:54
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 06-Dec-2022		Analyst: MSC
Mercury	U	H	0.0000300	0.000200	mg/L	1	07-Dec-2022 09:48
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**12.5**		**0.200**	**0.500**	**mg/L**	1	07-Oct-2022 18:21
Fluoride	**0.324**		**0.0500**	**0.100**	**mg/L**	1	07-Oct-2022 18:21
Nitrogen, Nitrate (As N)	**0.0777**	J	**0.0300**	**0.100**	**mg/L**	1	07-Oct-2022 18:21
Sulfate	**1,600**		**4.00**	**10.0**	**mg/L**	20	07-Oct-2022 18:26
CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993		**Method:E410.4**					Analyst: TH
Chemical Oxygen Demand	**12.0**	J	**5.00**	**15.0**	**mg/L**	1	14-Oct-2022 15:30
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: TH
Specific Conductivity	**3,540**		**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	14-Oct-2022 14:00

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Client: Altamira
Project: WFEC / CCR Landfill
Sample ID: MW-14A
Collection Date: 06-Oct-2022 14:51

ANALYTICAL REPORT
WorkOrder:HS22100361
Lab ID:HS22100361-08
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**2,580**		**5.00**	**10.0**	**mg/L**	1	13-Oct-2022 17:25
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: JAC
Alkalinity, Bicarbonate (As CaCO3)	**321**		**5.00**	**5.00**	**mg/L**	1	12-Oct-2022 03:39
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	12-Oct-2022 03:39
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	12-Oct-2022 03:39
Alkalinity, Total (As CaCO3)	**321**		**5.00**	**5.00**	**mg/L**	1	12-Oct-2022 03:39
FERROUS IRON BY SM3500 FE B		**Method:SM3500FED**					Analyst: MZD
Ferrous Iron	**0.578**		**0.0200**	**0.0500**	**mg/L**	1	07-Oct-2022 14:25
FERROUS IRON BY SM3500 FE D		**Method:SM3500FED (dissolved)**					Analyst: MZD
Ferrous Iron, Dissolved	**0.489**		**0.0200**	**0.0500**	**mg/L**	1	07-Oct-2022 18:35
SULFIDE BY SM4500 S2-F-2011		**Method:SM4500 S2-F**					Analyst: MZD
Sulfide	U		1.00	1.00	mg/L	1	13-Oct-2022 17:52
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: MZD
pH	**7.06**	H	**0.100**	**0.100**	**pH Units**	1	10-Oct-2022 15:15
Temp Deg C @pH	**20.8**	H	**0**	**0**	**°C**	1	10-Oct-2022 15:15
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	30-Nov-2022 09:14
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	30-Nov-2022 09:14

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Client: Altamira
Project: WFEC / CCR Landfill
Sample ID: MW-15A
Collection Date: 06-Oct-2022 13:03

ANALYTICAL REPORT
WorkOrder:HS22100361
Lab ID:HS22100361-09
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
FERRIC IRON - BY CALCULATION BY SM3500FED		**Method:SM3500FED**					Analyst: JHD
Ferric Iron	U		0.0200	0.0500	mg/L	1	17-Oct-2022 16:11
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		**Method:SM3500FED (dissolved)**					Analyst: JHD
Ferric Iron, Dissolved	U		0.0200	0.0500	mg/L	1	17-Oct-2022 17:04
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 13-Oct-2022		Analyst: JHD
Antimony	U		0.000400	0.00200	mg/L	1	14-Oct-2022 21:15
Arsenic	**0.000790**	J	**0.000400**	**0.00200**	**mg/L**	1	14-Oct-2022 21:15
Barium	**0.0215**		**0.00190**	**0.00400**	**mg/L**	1	14-Oct-2022 21:15
Beryllium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:15
Boron	**3.11**		**0.110**	**0.200**	**mg/L**	10	17-Oct-2022 13:54
Cadmium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:15
Calcium	**113**		**0.0340**	**0.500**	**mg/L**	1	14-Oct-2022 21:15
Chromium	U		0.000400	0.00400	mg/L	1	14-Oct-2022 21:15
Cobalt	U		0.000200	0.00500	mg/L	1	14-Oct-2022 21:15
Iron	**0.208**		**0.0120**	**0.200**	**mg/L**	1	14-Oct-2022 21:15
Lead	U		0.000600	0.00200	mg/L	1	14-Oct-2022 21:15
Lithium	**0.0643**		**0.00100**	**0.00500**	**mg/L**	1	14-Oct-2022 21:15
Magnesium	**10.3**		**0.0100**	**0.200**	**mg/L**	1	14-Oct-2022 21:15
Molybdenum	**0.149**		**0.000600**	**0.00500**	**mg/L**	1	14-Oct-2022 21:15
Potassium	**4.96**		**0.0180**	**0.200**	**mg/L**	1	14-Oct-2022 21:15
Selenium	U		0.00110	0.00200	mg/L	1	14-Oct-2022 21:15
Sodium	**609**		**0.140**	**2.00**	**mg/L**	10	17-Oct-2022 13:54
Thallium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:15
DISSOLVED METALS BY SW6020A		**Method:SW6020A (dissolved)**			Prep:SW3010A / 13-Oct-2022		Analyst: JHD
Iron	**0.367**		**0.0120**	**0.200**	**mg/L**	1	13-Oct-2022 23:56
Molybdenum	**0.149**		**0.000600**	**0.00500**	**mg/L**	1	13-Oct-2022 23:56
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 06-Dec-2022		Analyst: MSC
Mercury	**0.0000390**	JH	**0.0000300**	**0.000200**	**mg/L**	1	07-Dec-2022 09:49
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**26.2**		**0.200**	**0.500**	**mg/L**	1	07-Oct-2022 18:53
Fluoride	**1.31**		**0.0500**	**0.100**	**mg/L**	1	07-Oct-2022 18:53
Nitrogen, Nitrate (As N)	**0.246**		**0.0300**	**0.100**	**mg/L**	1	07-Oct-2022 18:53
Sulfate	**1,510**		**4.00**	**10.0**	**mg/L**	20	07-Oct-2022 18:58
CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993		**Method:E410.4**					Analyst: TH
Chemical Oxygen Demand	**11.0**	J	**5.00**	**15.0**	**mg/L**	1	14-Oct-2022 15:30
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: TH
Specific Conductivity	**3,590**		**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	14-Oct-2022 14:00

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Client: Altamira
Project: WFEC / CCR Landfill
Sample ID: MW-15A
Collection Date: 06-Oct-2022 13:03

ANALYTICAL REPORT
WorkOrder:HS22100361
Lab ID:HS22100361-09
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**2,370**		**5.00**	**10.0**	**mg/L**	1	13-Oct-2022 17:25
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: JAC
Alkalinity, Bicarbonate (As CaCO3)	**189**		**5.00**	**5.00**	**mg/L**	1	12-Oct-2022 03:46
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	12-Oct-2022 03:46
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	12-Oct-2022 03:46
Alkalinity, Total (As CaCO3)	**189**		**5.00**	**5.00**	**mg/L**	1	12-Oct-2022 03:46
FERROUS IRON BY SM3500 FE B		**Method:SM3500FED**					Analyst: MZD
Ferrous Iron	**0.0890**		**0.0200**	**0.0500**	**mg/L**	1	07-Oct-2022 14:25
FERROUS IRON BY SM3500 FE D		**Method:SM3500FED (dissolved)**					Analyst: MZD
Ferrous Iron, Dissolved	**0.358**		**0.0200**	**0.0500**	**mg/L**	1	07-Oct-2022 18:35
SULFIDE BY SM4500 S2-F-2011		**Method:SM4500 S2-F**					Analyst: MZD
Sulfide	U		1.00	1.00	mg/L	1	13-Oct-2022 17:52
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: MZD
pH	**7.74**	H	**0.100**	**0.100**	**pH Units**	1	10-Oct-2022 15:15
Temp Deg C @pH	**22.7**	H	**0**	**0**	**°C**	1	10-Oct-2022 15:15
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	30-Nov-2022 09:14
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	30-Nov-2022 09:14

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Client: Altamira
Project: WFEC / CCR Landfill
Sample ID: MW-17
Collection Date: 06-Oct-2022 15:33

ANALYTICAL REPORT
WorkOrder:HS22100361
Lab ID:HS22100361-10
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
FERRIC IRON - BY CALCULATION BY SM3500FED		**Method:SM3500FED**					Analyst: JHD
Ferric Iron	U		0.0200	0.0500	mg/L	1	17-Oct-2022 16:11
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		**Method:SM3500FED (dissolved)**					Analyst: JHD
Ferric Iron, Dissolved	**0.0581**		**0.0200**	**0.0500**	**mg/L**	1	17-Oct-2022 17:04
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 13-Oct-2022		Analyst: JHD
Antimony	U		0.000400	0.00200	mg/L	1	14-Oct-2022 21:17
Arsenic	U		0.000400	0.00200	mg/L	1	14-Oct-2022 21:17
Barium	U		0.00190	0.00400	mg/L	1	14-Oct-2022 21:17
Beryllium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:17
Boron	**0.902**		**0.0110**	**0.0200**	**mg/L**	1	14-Oct-2022 21:17
Cadmium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:17
Calcium	**541**		**0.340**	**5.00**	**mg/L**	10	17-Oct-2022 13:56
Chromium	U		0.000400	0.00400	mg/L	1	14-Oct-2022 21:17
Cobalt	U		0.000200	0.00500	mg/L	1	14-Oct-2022 21:17
Iron	U		0.0120	0.200	mg/L	1	14-Oct-2022 21:17
Lead	U		0.000600	0.00200	mg/L	1	14-Oct-2022 21:17
Lithium	**0.147**		**0.00100**	**0.00500**	**mg/L**	1	14-Oct-2022 21:17
Magnesium	**33.7**		**0.0100**	**0.200**	**mg/L**	1	14-Oct-2022 21:17
Molybdenum	U		0.000600	0.00500	mg/L	1	14-Oct-2022 21:17
Potassium	**4.99**		**0.0180**	**0.200**	**mg/L**	1	14-Oct-2022 21:17
Selenium	U		0.00110	0.00200	mg/L	1	14-Oct-2022 21:17
Sodium	**32.8**		**0.0140**	**0.200**	**mg/L**	1	14-Oct-2022 21:17
Thallium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:17
DISSOLVED METALS BY SW6020A		**Method:SW6020A (dissolved)**			Prep:SW3010A / 13-Oct-2022		Analyst: JHD
Iron	**0.0581**	J	**0.0120**	**0.200**	**mg/L**	1	13-Oct-2022 23:58
Molybdenum	U		0.000600	0.00500	mg/L	1	13-Oct-2022 23:58
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 06-Dec-2022		Analyst: MSC
Mercury	**0.000151**	JH	**0.0000300**	**0.000200**	**mg/L**	1	07-Dec-2022 09:56
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**4.25**		**0.200**	**0.500**	**mg/L**	1	07-Oct-2022 19:03
Fluoride	**0.340**		**0.0500**	**0.100**	**mg/L**	1	07-Oct-2022 19:03
Nitrogen, Nitrate (As N)	**0.0756**	J	**0.0300**	**0.100**	**mg/L**	1	07-Oct-2022 19:03
Sulfate	**1,320**		**4.00**	**10.0**	**mg/L**	20	07-Oct-2022 19:09
CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993		**Method:E410.4**					Analyst: TH
Chemical Oxygen Demand	U		5.00	15.0	mg/L	1	14-Oct-2022 15:30
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: TH
Specific Conductivity	**2,570**		**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	14-Oct-2022 14:00

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Client: Altamira
Project: WFEC / CCR Landfill
Sample ID: MW-17
Collection Date: 06-Oct-2022 15:33

ANALYTICAL REPORT
WorkOrder:HS22100361
Lab ID:HS22100361-10
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**2,170**		**5.00**	**10.0**	**mg/L**	1	13-Oct-2022 17:25
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: JAC
Alkalinity, Bicarbonate (As CaCO3)	**276**		**5.00**	**5.00**	**mg/L**	1	12-Oct-2022 03:53
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	12-Oct-2022 03:53
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	12-Oct-2022 03:53
Alkalinity, Total (As CaCO3)	**276**		**5.00**	**5.00**	**mg/L**	1	12-Oct-2022 03:53
FERROUS IRON BY SM3500 FE B		**Method:SM3500FED**					Analyst: MZD
Ferrous Iron	U		0.0200	0.0500	mg/L	1	07-Oct-2022 14:25
FERROUS IRON BY SM3500 FE D		**Method:SM3500FED (dissolved)**					Analyst: MZD
Ferrous Iron, Dissolved	U		0.0200	0.0500	mg/L	1	07-Oct-2022 18:35
SULFIDE BY SM4500 S2-F-2011		**Method:SM4500 S2-F**					Analyst: MZD
Sulfide	U		1.00	1.00	mg/L	1	13-Oct-2022 17:52
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: MZD
pH	**7.04**	H	**0.100**	**0.100**	**pH Units**	1	10-Oct-2022 15:15
Temp Deg C @pH	**22.9**	H	**0**	**0**	**°C**	1	10-Oct-2022 15:15
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	30-Nov-2022 09:14
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	30-Nov-2022 09:14

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Client: Altamira
Project: WFEC / CCR Landfill
Sample ID: MW-18
Collection Date: 06-Oct-2022 14:05

ANALYTICAL REPORT
WorkOrder:HS22100361
Lab ID:HS22100361-11
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
FERRIC IRON - BY CALCULATION BY SM3500FED		**Method:SM3500FED**					Analyst: JHD
Ferric Iron	U		0.0200	0.0500	mg/L	1	17-Oct-2022 16:11
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		**Method:SM3500FED (dissolved)**					Analyst: JHD
Ferric Iron, Dissolved	U		0.0200	0.0500	mg/L	1	17-Oct-2022 17:04
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 13-Oct-2022		Analyst: JHD
Antimony	**0.000555**	J	**0.000400**	**0.00200**	**mg/L**	1	14-Oct-2022 21:19
Arsenic	**0.00315**		**0.000400**	**0.00200**	**mg/L**	1	14-Oct-2022 21:19
Barium	**0.00269**	J	**0.00190**	**0.00400**	**mg/L**	1	14-Oct-2022 21:19
Beryllium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:19
Boron	**5.20**		**0.110**	**0.200**	**mg/L**	10	17-Oct-2022 14:06
Cadmium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:19
Calcium	**17.7**		**0.0340**	**0.500**	**mg/L**	1	14-Oct-2022 21:19
Chromium	U		0.000400	0.00400	mg/L	1	14-Oct-2022 21:19
Cobalt	U		0.000200	0.00500	mg/L	1	14-Oct-2022 21:19
Iron	U		0.0120	0.200	mg/L	1	14-Oct-2022 21:19
Lead	U		0.000600	0.00200	mg/L	1	14-Oct-2022 21:19
Lithium	**0.00257**	J	**0.00100**	**0.00500**	**mg/L**	1	14-Oct-2022 21:19
Magnesium	**0.181**	J	**0.0100**	**0.200**	**mg/L**	1	14-Oct-2022 21:19
Molybdenum	**0.183**		**0.000600**	**0.00500**	**mg/L**	1	14-Oct-2022 21:19
Potassium	**14.5**		**0.0180**	**0.200**	**mg/L**	1	14-Oct-2022 21:19
Selenium	**0.00208**		**0.00110**	**0.00200**	**mg/L**	1	14-Oct-2022 21:19
Sodium	**381**		**0.140**	**2.00**	**mg/L**	10	17-Oct-2022 14:06
Thallium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:19
DISSOLVED METALS BY SW6020A		**Method:SW6020A (dissolved)**			Prep:SW3010A / 13-Oct-2022		Analyst: JHD
Iron	U		0.0120	0.200	mg/L	1	14-Oct-2022 00:00
Molybdenum	**0.172**		**0.000600**	**0.00500**	**mg/L**	1	14-Oct-2022 00:00
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 06-Dec-2022		Analyst: MSC
Mercury	U	H	0.0000300	0.000200	mg/L	1	07-Dec-2022 09:58
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**3.88**		**0.200**	**0.500**	**mg/L**	1	07-Oct-2022 19:14
Fluoride	**1.84**		**0.0500**	**0.100**	**mg/L**	1	07-Oct-2022 19:14
Nitrogen, Nitrate (As N)	**0.0851**	J	**0.0300**	**0.100**	**mg/L**	1	07-Oct-2022 19:14
Sulfate	**804**		**4.00**	**10.0**	**mg/L**	20	07-Oct-2022 19:19
CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993		**Method:E410.4**					Analyst: TH
Chemical Oxygen Demand	**6.00**	J	**5.00**	**15.0**	**mg/L**	1	14-Oct-2022 15:30
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: TH
Specific Conductivity	**2,090**		**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	14-Oct-2022 14:00

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Client: Altamira
Project: WFEC / CCR Landfill
Sample ID: MW-18
Collection Date: 06-Oct-2022 14:05

ANALYTICAL REPORT
WorkOrder:HS22100361
Lab ID:HS22100361-11
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**1,250**		**5.00**	**10.0**	**mg/L**	1	13-Oct-2022 17:25
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: TH
Alkalinity, Bicarbonate (As CaCO3)	U		5.00	5.00	mg/L	1	16-Oct-2022 19:10
Alkalinity, Carbonate (As CaCO3)	**56.5**		**5.00**	**5.00**	**mg/L**	1	16-Oct-2022 19:10
Alkalinity, Hydroxide (As CaCO3)	**5.06**		**5.00**	**5.00**	**mg/L**	1	16-Oct-2022 19:10
Alkalinity, Total (As CaCO3)	**61.6**		**5.00**	**5.00**	**mg/L**	1	16-Oct-2022 19:10
FERROUS IRON BY SM3500 FE B		**Method:SM3500FED**					Analyst: MZD
Ferrous Iron	U		0.0200	0.0500	mg/L	1	07-Oct-2022 14:25
FERROUS IRON BY SM3500 FE D		**Method:SM3500FED (dissolved)**					Analyst: MZD
Ferrous Iron, Dissolved	U		0.0200	0.0500	mg/L	1	07-Oct-2022 18:35
SULFIDE BY SM4500 S2-F-2011		**Method:SM4500 S2-F**					Analyst: MZD
Sulfide	U		1.00	1.00	mg/L	1	13-Oct-2022 17:52
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: MZD
pH	**10.2**	H	**0.100**	**0.100**	**pH Units**	1	10-Oct-2022 15:15
Temp Deg C @pH	**22.8**	H	**0**	**0**	**°C**	1	10-Oct-2022 15:15
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	30-Nov-2022 09:14
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	30-Nov-2022 09:14

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Client: Altamira
Project: WFEC / CCR Landfill
Sample ID: MW-16
Collection Date: 06-Oct-2022 17:30

ANALYTICAL REPORT
WorkOrder:HS22100361
Lab ID:HS22100361-12
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
FERRIC IRON - BY CALCULATION BY SM3500FED		**Method:SM3500FED**					Analyst: JHD
Ferric Iron	**0.0547**		**0.0200**	**0.0500**	**mg/L**	1	17-Oct-2022 16:11
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		**Method:SM3500FED (dissolved)**					Analyst: JHD
Ferric Iron, Dissolved	**0.0203**	J	**0.0200**	**0.0500**	**mg/L**	1	17-Oct-2022 17:04
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 13-Oct-2022		Analyst: JHD
Antimony	U		0.000400	0.00200	mg/L	1	14-Oct-2022 21:21
Arsenic	U		0.000400	0.00200	mg/L	1	14-Oct-2022 21:21
Barium	**0.0132**		**0.00190**	**0.00400**	**mg/L**	1	14-Oct-2022 21:21
Beryllium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:21
Boron	**2.54**		**0.110**	**0.200**	**mg/L**	10	17-Oct-2022 14:08
Cadmium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:21
Calcium	**132**		**0.0340**	**0.500**	**mg/L**	1	14-Oct-2022 21:21
Chromium	U		0.000400	0.00400	mg/L	1	14-Oct-2022 21:21
Cobalt	U		0.000200	0.00500	mg/L	1	14-Oct-2022 21:21
Iron	**0.0547**	J	**0.0120**	**0.200**	**mg/L**	1	14-Oct-2022 21:21
Lead	U		0.000600	0.00200	mg/L	1	14-Oct-2022 21:21
Lithium	**0.0534**		**0.00100**	**0.00500**	**mg/L**	1	14-Oct-2022 21:21
Magnesium	**7.24**		**0.0100**	**0.200**	**mg/L**	1	14-Oct-2022 21:21
Molybdenum	**0.113**		**0.000600**	**0.00500**	**mg/L**	1	14-Oct-2022 21:21
Potassium	**3.61**		**0.0180**	**0.200**	**mg/L**	1	14-Oct-2022 21:21
Selenium	U		0.00110	0.00200	mg/L	1	14-Oct-2022 21:21
Sodium	**415**		**0.140**	**2.00**	**mg/L**	10	17-Oct-2022 14:08
Thallium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:21
DISSOLVED METALS BY SW6020A		**Method:SW6020A (dissolved)**			Prep:SW3010A / 13-Oct-2022		Analyst: JHD
Iron	**0.0203**	J	**0.0120**	**0.200**	**mg/L**	1	14-Oct-2022 00:05
Molybdenum	**0.112**		**0.000600**	**0.00500**	**mg/L**	1	14-Oct-2022 00:05
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 13-Oct-2022		Analyst: MSC
Mercury	U		0.0000300	0.000200	mg/L	1	13-Oct-2022 14:36
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**25.8**		**0.200**	**0.500**	**mg/L**	1	08-Oct-2022 12:05
Fluoride	**1.25**		**0.0500**	**0.100**	**mg/L**	1	08-Oct-2022 12:05
Nitrogen, Nitrate (As N)	**0.127**		**0.0300**	**0.100**	**mg/L**	1	08-Oct-2022 12:05
Sulfate	**996**		**4.00**	**10.0**	**mg/L**	20	08-Oct-2022 12:21
CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993		**Method:E410.4**					Analyst: TH
Chemical Oxygen Demand	**6.00**	J	**5.00**	**15.0**	**mg/L**	1	14-Oct-2022 15:30
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: TH
Specific Conductivity	**2,650**		**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	14-Oct-2022 14:00

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Client: Altamira
Project: WFEC / CCR Landfill
Sample ID: MW-16
Collection Date: 06-Oct-2022 17:30

ANALYTICAL REPORT
WorkOrder:HS22100361
Lab ID:HS22100361-12
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**1,690**		**5.00**	**10.0**	**mg/L**	1	13-Oct-2022 17:25
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: TH
Alkalinity, Bicarbonate (As CaCO3)	**277**		**5.00**	**5.00**	**mg/L**	1	16-Oct-2022 19:17
Alkalinity, Carbonate (As CaCO3)	**10.7**		**5.00**	**5.00**	**mg/L**	1	16-Oct-2022 19:17
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	16-Oct-2022 19:17
Alkalinity, Total (As CaCO3)	**288**		**5.00**	**5.00**	**mg/L**	1	16-Oct-2022 19:17
FERROUS IRON BY SM3500 FE B		**Method:SM3500FED**					Analyst: TH
Ferrous Iron	U		0.0200	0.0500	mg/L	1	08-Oct-2022 11:00
FERROUS IRON BY SM3500 FE D		**Method:SM3500FED (dissolved)**					Analyst: TH
Ferrous Iron, Dissolved	U		0.0200	0.0500	mg/L	1	08-Oct-2022 10:30
SULFIDE BY SM4500 S2-F-2011		**Method:SM4500 S2-F**					Analyst: MZD
Sulfide	U		1.00	1.00	mg/L	1	13-Oct-2022 17:52
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: MZD
pH	**7.85**	H	**0.100**	**0.100**	**pH Units**	1	11-Oct-2022 13:04
Temp Deg C @pH	**21.5**	H	**0**	**0**	**°C**	1	11-Oct-2022 13:04
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	30-Nov-2022 09:14
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	30-Nov-2022 09:14

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Client: Altamira
Project: WFEC / CCR Landfill
Sample ID: DUP-3
Collection Date: 05-Oct-2022 15:20

ANALYTICAL REPORT
WorkOrder:HS22100361
Lab ID:HS22100361-13
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
FERRIC IRON - BY CALCULATION BY SM3500FED		**Method:SM3500FED**					Analyst: JHD
Ferric Iron	**0.0790**		**0.0200**	**0.0500**	**mg/L**	1	17-Oct-2022 16:11
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		**Method:SM3500FED (dissolved)**					Analyst: JHD
Ferric Iron, Dissolved	**0.0883**		**0.0200**	**0.0500**	**mg/L**	1	08-Nov-2022 15:14
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 13-Oct-2022		Analyst: JHD
Antimony	U		0.000400	0.00200	mg/L	1	14-Oct-2022 21:23
Arsenic	U		0.000400	0.00200	mg/L	1	14-Oct-2022 21:23
Barium	**0.0167**		**0.00190**	**0.00400**	**mg/L**	1	14-Oct-2022 21:23
Beryllium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:23
Boron	**3.07**		**0.110**	**0.200**	**mg/L**	10	17-Oct-2022 14:10
Cadmium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:23
Calcium	**111**		**0.0340**	**0.500**	**mg/L**	1	14-Oct-2022 21:23
Chromium	**0.00143**	J	**0.000400**	**0.00400**	**mg/L**	1	14-Oct-2022 21:23
Cobalt	**0.000215**	J	**0.000200**	**0.00500**	**mg/L**	1	14-Oct-2022 21:23
Iron	**0.186**	J	**0.0120**	**0.200**	**mg/L**	1	14-Oct-2022 21:23
Lead	U		0.000600	0.00200	mg/L	1	14-Oct-2022 21:23
Lithium	**0.0778**		**0.00100**	**0.00500**	**mg/L**	1	14-Oct-2022 21:23
Magnesium	**13.8**		**0.0100**	**0.200**	**mg/L**	1	14-Oct-2022 21:23
Molybdenum	**0.00134**	J	**0.000600**	**0.00500**	**mg/L**	1	14-Oct-2022 21:23
Potassium	**6.00**		**0.0180**	**0.200**	**mg/L**	1	14-Oct-2022 21:23
Selenium	U		0.00110	0.00200	mg/L	1	14-Oct-2022 21:23
Sodium	**352**		**0.140**	**2.00**	**mg/L**	10	17-Oct-2022 14:10
Thallium	U		0.000200	0.00200	mg/L	1	14-Oct-2022 21:23
DISSOLVED METALS BY SW6020A		**Method:SW6020A (dissolved)**			Prep:SW3010A / 13-Oct-2022		Analyst: JHD
Iron	**0.0883**	J	**0.0120**	**0.200**	**mg/L**	1	14-Oct-2022 00:07
Molybdenum	**0.00108**	J	**0.000600**	**0.00500**	**mg/L**	1	14-Oct-2022 00:07
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 13-Oct-2022		Analyst: MSC
Mercury	U		0.0000300	0.000200	mg/L	1	13-Oct-2022 14:38
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**16.7**		**0.200**	**0.500**	**mg/L**	1	07-Oct-2022 14:55
Fluoride	**0.824**		**0.0500**	**0.100**	**mg/L**	1	07-Oct-2022 14:55
Nitrogen, Nitrate (As N)	**0.147**		**0.0300**	**0.100**	**mg/L**	1	07-Oct-2022 14:55
Sulfate	**687**		**4.00**	**10.0**	**mg/L**	20	07-Oct-2022 19:24
CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993		**Method:E410.4**					Analyst: TH
Chemical Oxygen Demand	**16.0**		**5.00**	**15.0**	**mg/L**	1	14-Oct-2022 15:30
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: TH
Specific Conductivity	**2,050**		**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	14-Oct-2022 14:00

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Client: Altamira
Project: WFEC / CCR Landfill
Sample ID: DUP-3
Collection Date: 05-Oct-2022 15:20

ANALYTICAL REPORT
WorkOrder:HS22100361
Lab ID:HS22100361-13
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: CWG
Total Dissolved Solids (Residue, Filterable)	**1,260**	H	**5.00**	**10.0**	**mg/L**	1	06-Dec-2022 13:49
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: TH
Alkalinity, Bicarbonate (As CaCO3)	**289**		**5.00**	**5.00**	**mg/L**	1	16-Oct-2022 09:00
Alkalinity, Carbonate (As CaCO3)	**7.48**		**5.00**	**5.00**	**mg/L**	1	16-Oct-2022 09:00
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	16-Oct-2022 09:00
Alkalinity, Total (As CaCO3)	**297**		**5.00**	**5.00**	**mg/L**	1	16-Oct-2022 09:00
FERROUS IRON BY SM3500 FE B		**Method:SM3500FED**					Analyst: MZD
Ferrous Iron	**0.107**		**0.0200**	**0.0500**	**mg/L**	1	07-Oct-2022 14:25
FERROUS IRON BY SM3500 FE D		**Method:SM3500FED (dissolved)**					Analyst: MZD
Ferrous Iron, Dissolved	U		0.0200	0.0500	mg/L	1	07-Oct-2022 14:21
SULFIDE BY SM4500 S2-F-2011		**Method:SM4500 S2-F**					Analyst: MZD
Sulfide	U		1.00	1.00	mg/L	1	12-Oct-2022 16:00
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: CD
pH	**8.01**	H	**0.100**	**0.100**	**pH Units**	1	06-Dec-2022 14:53
Temp Deg C @pH	**21.3**	H	**0**	**0**	**°C**	1	06-Dec-2022 14:53
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	30-Nov-2022 09:14
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	30-Nov-2022 09:14

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 2

Weight / Prep Log

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

Batch ID: 184786 **Start Date:** 13 Oct 2022 09:00 **End Date:** 13 Oct 2022 12:00
Method: MERCURY PREP BY 7470A- WATER **Prep Code:** HG_WPR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22100361-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-06		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-07		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-12		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-13		10 (mL)	10 (mL)	1	120 plastic HNO3

Batch ID: 184802 **Start Date:** 13 Oct 2022 14:00 **End Date:** 13 Oct 2022 18:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22100361-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-06		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-07		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-08		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-09		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-10		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-11		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-12		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-13		10 (mL)	10 (mL)	1	120 plastic HNO3

Batch ID: 184803 **Start Date:** 13 Oct 2022 14:30 **End Date:** 13 Oct 2022 18:30
Method: DISS METALS PREP - WATER - SW3010A **Prep Code:** 3010A DISS

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22100361-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-08		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-09		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-10		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-11		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-12		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-13		10 (mL)	10 (mL)	1	120 plastic HNO3

Weight / Prep Log

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

Batch ID: 187029 **Start Date:** 06 Dec 2022 14:00 **End Date:** 06 Dec 2022 17:00
Method: MERCURY PREP BY 7470A- WATER **Prep Code:** HG_WPR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22100361-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-08		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-09		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-10		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22100361-11		10 (mL)	10 (mL)	1	120 plastic HNO3

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 184786 (0)	**Test Name :** MERCURY BY SW7470A				**Matrix:** Water	
HS22100361-01	MW-3	05 Oct 2022 18:16		13 Oct 2022 09:00	13 Oct 2022 14:13	1
HS22100361-02	MW-5S	06 Oct 2022 11:30		13 Oct 2022 09:00	13 Oct 2022 14:15	1
HS22100361-03	MW-7S	05 Oct 2022 15:20		13 Oct 2022 09:00	13 Oct 2022 14:16	1
HS22100361-04	MW-13	05 Oct 2022 18:12		13 Oct 2022 09:00	13 Oct 2022 14:18	1
HS22100361-06	MW-20	05 Oct 2022 16:48		13 Oct 2022 09:00	13 Oct 2022 14:20	1
HS22100361-07	MW-21	05 Oct 2022 15:40		13 Oct 2022 09:00	13 Oct 2022 14:35	1
HS22100361-12	MW-16	06 Oct 2022 17:30		13 Oct 2022 09:00	13 Oct 2022 14:36	1
HS22100361-13	DUP-3	05 Oct 2022 15:20		13 Oct 2022 09:00	13 Oct 2022 14:38	1
Batch ID: 184802 (0)	**Test Name :** ICP-MS METALS BY SW6020A				**Matrix:** Water	
HS22100361-01	MW-3	05 Oct 2022 18:16		13 Oct 2022 14:00	17 Oct 2022 13:26	10
HS22100361-01	MW-3	05 Oct 2022 18:16		13 Oct 2022 14:00	14 Oct 2022 20:58	1
HS22100361-02	MW-5S	06 Oct 2022 11:30		13 Oct 2022 14:00	17 Oct 2022 13:28	10
HS22100361-02	MW-5S	06 Oct 2022 11:30		13 Oct 2022 14:00	14 Oct 2022 21:00	1
HS22100361-03	MW-7S	05 Oct 2022 15:20		13 Oct 2022 14:00	17 Oct 2022 13:30	10
HS22100361-03	MW-7S	05 Oct 2022 15:20		13 Oct 2022 14:00	14 Oct 2022 21:02	1
HS22100361-04	MW-13	05 Oct 2022 18:12		13 Oct 2022 14:00	17 Oct 2022 13:32	10
HS22100361-04	MW-13	05 Oct 2022 18:12		13 Oct 2022 14:00	14 Oct 2022 21:04	1
HS22100361-05	MW-19S	06 Oct 2022 09:40		13 Oct 2022 14:00	17 Oct 2022 14:54	20
HS22100361-05	MW-19S	06 Oct 2022 09:40		13 Oct 2022 14:00	14 Oct 2022 20:42	1
HS22100361-06	MW-20	05 Oct 2022 16:48		13 Oct 2022 14:00	17 Oct 2022 13:48	10
HS22100361-06	MW-20	05 Oct 2022 16:48		13 Oct 2022 14:00	14 Oct 2022 21:06	1
HS22100361-07	MW-21	05 Oct 2022 15:40		13 Oct 2022 14:00	17 Oct 2022 13:50	10
HS22100361-07	MW-21	05 Oct 2022 15:40		13 Oct 2022 14:00	14 Oct 2022 21:11	1
HS22100361-08	MW-14A	06 Oct 2022 14:51		13 Oct 2022 14:00	17 Oct 2022 13:52	10
HS22100361-08	MW-14A	06 Oct 2022 14:51		13 Oct 2022 14:00	14 Oct 2022 21:13	1
HS22100361-09	MW-15A	06 Oct 2022 13:03		13 Oct 2022 14:00	17 Oct 2022 13:54	10
HS22100361-09	MW-15A	06 Oct 2022 13:03		13 Oct 2022 14:00	14 Oct 2022 21:15	1
HS22100361-10	MW-17	06 Oct 2022 15:33		13 Oct 2022 14:00	17 Oct 2022 13:56	10
HS22100361-10	MW-17	06 Oct 2022 15:33		13 Oct 2022 14:00	14 Oct 2022 21:17	1
HS22100361-11	MW-18	06 Oct 2022 14:05		13 Oct 2022 14:00	17 Oct 2022 14:06	10
HS22100361-11	MW-18	06 Oct 2022 14:05		13 Oct 2022 14:00	14 Oct 2022 21:19	1
HS22100361-12	MW-16	06 Oct 2022 17:30		13 Oct 2022 14:00	17 Oct 2022 14:08	10
HS22100361-12	MW-16	06 Oct 2022 17:30		13 Oct 2022 14:00	14 Oct 2022 21:21	1
HS22100361-13	DUP-3	05 Oct 2022 15:20		13 Oct 2022 14:00	17 Oct 2022 14:10	10
HS22100361-13	DUP-3	05 Oct 2022 15:20		13 Oct 2022 14:00	14 Oct 2022 21:23	1

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Batch ID: 184803 (0)	**Test Name :** DISSOLVED METALS BY SW6020A				**Matrix:** Water	
HS22100361-02	MW-5S	06 Oct 2022 11:30		13 Oct 2022 14:30	13 Oct 2022 23:50	1
HS22100361-03	MW-7S	05 Oct 2022 15:20		13 Oct 2022 14:30	13 Oct 2022 23:52	1
HS22100361-05	MW-19S	06 Oct 2022 09:40		13 Oct 2022 14:30	13 Oct 2022 23:37	1
HS22100361-08	MW-14A	06 Oct 2022 14:51		13 Oct 2022 14:30	13 Oct 2022 23:54	1
HS22100361-09	MW-15A	06 Oct 2022 13:03		13 Oct 2022 14:30	13 Oct 2022 23:56	1
HS22100361-10	MW-17	06 Oct 2022 15:33		13 Oct 2022 14:30	13 Oct 2022 23:58	1
HS22100361-11	MW-18	06 Oct 2022 14:05		13 Oct 2022 14:30	14 Oct 2022 00:00	1
HS22100361-12	MW-16	06 Oct 2022 17:30		13 Oct 2022 14:30	14 Oct 2022 00:05	1
HS22100361-13	DUP-3	05 Oct 2022 15:20		13 Oct 2022 14:30	14 Oct 2022 00:07	1
Batch ID: 187029 (0)	**Test Name :** MERCURY BY SW7470A				**Matrix:** Water	
HS22100361-05	MW-19S	06 Oct 2022 09:40		06 Dec 2022 14:00	07 Dec 2022 09:46	1
HS22100361-08	MW-14A	06 Oct 2022 14:51		06 Dec 2022 14:00	07 Dec 2022 09:48	1
HS22100361-09	MW-15A	06 Oct 2022 13:03		06 Dec 2022 14:00	07 Dec 2022 09:49	1
HS22100361-10	MW-17	06 Oct 2022 15:33		06 Dec 2022 14:00	07 Dec 2022 09:56	1
HS22100361-11	MW-18	06 Oct 2022 14:05		06 Dec 2022 14:00	07 Dec 2022 09:58	1
Batch ID: R418882 (0)	**Test Name :** FERROUS IRON BY SM3500 FE B				**Matrix:** Water	
HS22100361-02	MW-5S	06 Oct 2022 11:30			07 Oct 2022 14:25	1
HS22100361-03	MW-7S	05 Oct 2022 15:20			07 Oct 2022 14:25	1
HS22100361-05	MW-19S	06 Oct 2022 09:40			07 Oct 2022 14:25	1
HS22100361-08	MW-14A	06 Oct 2022 14:51			07 Oct 2022 14:25	1
HS22100361-09	MW-15A	06 Oct 2022 13:03			07 Oct 2022 14:25	1
HS22100361-10	MW-17	06 Oct 2022 15:33			07 Oct 2022 14:25	1
HS22100361-11	MW-18	06 Oct 2022 14:05			07 Oct 2022 14:25	1
HS22100361-13	DUP-3	05 Oct 2022 15:20			07 Oct 2022 14:25	1
Batch ID: R418883 (0)	**Test Name :** FERROUS IRON BY SM3500 FE D				**Matrix:** Water	
HS22100361-02	MW-5S	06 Oct 2022 11:30			07 Oct 2022 18:35	1
HS22100361-03	MW-7S	05 Oct 2022 15:20			07 Oct 2022 14:21	1
HS22100361-05	MW-19S	06 Oct 2022 09:40			07 Oct 2022 18:35	1
HS22100361-08	MW-14A	06 Oct 2022 14:51			07 Oct 2022 18:35	1
HS22100361-09	MW-15A	06 Oct 2022 13:03			07 Oct 2022 18:35	1
HS22100361-10	MW-17	06 Oct 2022 15:33			07 Oct 2022 18:35	1
HS22100361-11	MW-18	06 Oct 2022 14:05			07 Oct 2022 18:35	1
HS22100361-13	DUP-3	05 Oct 2022 15:20			07 Oct 2022 14:21	1

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Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R418890 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS22100361-01	MW-3	05 Oct 2022 18:16			07 Oct 2022 13:03	20
HS22100361-01	MW-3	05 Oct 2022 18:16			07 Oct 2022 12:26	1
HS22100361-02	MW-5S	06 Oct 2022 11:30			07 Oct 2022 13:41	20
HS22100361-02	MW-5S	06 Oct 2022 11:30			07 Oct 2022 12:32	1
HS22100361-03	MW-7S	05 Oct 2022 15:20			07 Oct 2022 19:30	20
HS22100361-03	MW-7S	05 Oct 2022 15:20			07 Oct 2022 15:00	1
HS22100361-04	MW-13	05 Oct 2022 18:12			07 Oct 2022 13:46	20
HS22100361-04	MW-13	05 Oct 2022 18:12			07 Oct 2022 12:37	1
HS22100361-05	MW-19S	06 Oct 2022 09:40			07 Oct 2022 12:58	50
HS22100361-05	MW-19S	06 Oct 2022 09:40			07 Oct 2022 12:11	1
HS22100361-06	MW-20	05 Oct 2022 16:48			07 Oct 2022 13:51	50
HS22100361-06	MW-20	05 Oct 2022 16:48			07 Oct 2022 12:42	1
HS22100361-07	MW-21	05 Oct 2022 15:40			07 Oct 2022 13:56	50
HS22100361-07	MW-21	05 Oct 2022 15:40			07 Oct 2022 12:48	1
HS22100361-13	DUP-3	05 Oct 2022 15:20			07 Oct 2022 19:24	20
HS22100361-13	DUP-3	05 Oct 2022 15:20			07 Oct 2022 14:55	1
Batch ID: R418893 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS22100361-08	MW-14A	06 Oct 2022 14:51			07 Oct 2022 18:26	20
HS22100361-08	MW-14A	06 Oct 2022 14:51			07 Oct 2022 18:21	1
HS22100361-09	MW-15A	06 Oct 2022 13:03			07 Oct 2022 18:58	20
HS22100361-09	MW-15A	06 Oct 2022 13:03			07 Oct 2022 18:53	1
HS22100361-10	MW-17	06 Oct 2022 15:33			07 Oct 2022 19:09	20
HS22100361-10	MW-17	06 Oct 2022 15:33			07 Oct 2022 19:03	1
HS22100361-11	MW-18	06 Oct 2022 14:05			07 Oct 2022 19:19	20
HS22100361-11	MW-18	06 Oct 2022 14:05			07 Oct 2022 19:14	1
Batch ID: R418914 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS22100361-12	MW-16	06 Oct 2022 17:30			08 Oct 2022 12:21	20
HS22100361-12	MW-16	06 Oct 2022 17:30			08 Oct 2022 12:05	1
Batch ID: R418923 (0)	**Test Name :** FERROUS IRON BY SM3500 FE B				**Matrix:** Water	
HS22100361-12	MW-16	06 Oct 2022 17:30			08 Oct 2022 11:00	1
Batch ID: R418924 (0)	**Test Name :** FERROUS IRON BY SM3500 FE D				**Matrix:** Water	
HS22100361-12	MW-16	06 Oct 2022 17:30			08 Oct 2022 10:30	1

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Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R419006 (0)	**Test Name :** PH BY SM4500H+ B-2011				**Matrix:** Water	
HS22100361-01	MW-3	05 Oct 2022 18:16			10 Oct 2022 15:15	1
HS22100361-04	MW-13	05 Oct 2022 18:12			10 Oct 2022 15:15	1
HS22100361-06	MW-20	05 Oct 2022 16:48			10 Oct 2022 15:15	1
HS22100361-07	MW-21	05 Oct 2022 15:40			10 Oct 2022 15:15	1
HS22100361-08	MW-14A	06 Oct 2022 14:51			10 Oct 2022 15:15	1
HS22100361-09	MW-15A	06 Oct 2022 13:03			10 Oct 2022 15:15	1
HS22100361-10	MW-17	06 Oct 2022 15:33			10 Oct 2022 15:15	1
HS22100361-11	MW-18	06 Oct 2022 14:05			10 Oct 2022 15:15	1
Batch ID: R419091 (0)	**Test Name :** PH BY SM4500H+ B-2011				**Matrix:** Water	
HS22100361-02	MW-5S	06 Oct 2022 11:30			11 Oct 2022 13:04	1
HS22100361-05	MW-19S	06 Oct 2022 09:40			11 Oct 2022 13:04	1
HS22100361-12	MW-16	06 Oct 2022 17:30			11 Oct 2022 13:04	1
Batch ID: R419195 (0)	**Test Name :** ALKALINITY BY SM 2320B-2011				**Matrix:** Water	
HS22100361-02	MW-5S	06 Oct 2022 11:30			12 Oct 2022 03:16	1
HS22100361-05	MW-19S	06 Oct 2022 09:40			12 Oct 2022 00:31	1
HS22100361-08	MW-14A	06 Oct 2022 14:51			12 Oct 2022 03:39	1
HS22100361-09	MW-15A	06 Oct 2022 13:03			12 Oct 2022 03:46	1
HS22100361-10	MW-17	06 Oct 2022 15:33			12 Oct 2022 03:53	1
Batch ID: R419364 (0)	**Test Name :** SULFIDE BY SM4500 S2-F-2011				**Matrix:** Water	
HS22100361-02	MW-5S	06 Oct 2022 11:30			13 Oct 2022 17:52	1
HS22100361-05	MW-19S	06 Oct 2022 09:40			13 Oct 2022 17:52	1
HS22100361-08	MW-14A	06 Oct 2022 14:51			13 Oct 2022 17:52	1
HS22100361-09	MW-15A	06 Oct 2022 13:03			13 Oct 2022 17:52	1
HS22100361-10	MW-17	06 Oct 2022 15:33			13 Oct 2022 17:52	1
HS22100361-11	MW-18	06 Oct 2022 14:05			13 Oct 2022 17:52	1
HS22100361-12	MW-16	06 Oct 2022 17:30			13 Oct 2022 17:52	1
Batch ID: R419366 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Water	
HS22100361-01	MW-3	05 Oct 2022 18:16			12 Oct 2022 18:14	1
HS22100361-04	MW-13	05 Oct 2022 18:12			12 Oct 2022 18:14	1
HS22100361-06	MW-20	05 Oct 2022 16:48			12 Oct 2022 18:14	1
HS22100361-07	MW-21	05 Oct 2022 15:40			12 Oct 2022 18:14	1

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Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R419447 (0)	**Test Name :** SPECIFIC CONDUCTANCE BY SM 2510B-2011				**Matrix:** Water	
HS22100361-01	MW-3	05 Oct 2022 18:16			14 Oct 2022 14:00	1
HS22100361-02	MW-5S	06 Oct 2022 11:30			14 Oct 2022 14:00	1
HS22100361-04	MW-13	05 Oct 2022 18:12			14 Oct 2022 14:00	1
HS22100361-05	MW-19S	06 Oct 2022 09:40			14 Oct 2022 14:00	1
HS22100361-06	MW-20	05 Oct 2022 16:48			14 Oct 2022 14:00	1
HS22100361-07	MW-21	05 Oct 2022 15:40			14 Oct 2022 14:00	1
HS22100361-08	MW-14A	06 Oct 2022 14:51			14 Oct 2022 14:00	1
HS22100361-09	MW-15A	06 Oct 2022 13:03			14 Oct 2022 14:00	1
HS22100361-10	MW-17	06 Oct 2022 15:33			14 Oct 2022 14:00	1
HS22100361-11	MW-18	06 Oct 2022 14:05			14 Oct 2022 14:00	1
HS22100361-12	MW-16	06 Oct 2022 17:30			14 Oct 2022 14:00	1
HS22100361-13	DUP-3	05 Oct 2022 15:20			14 Oct 2022 14:00	1
Batch ID: R419454 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Water	
HS22100361-02	MW-5S	06 Oct 2022 11:30			13 Oct 2022 17:25	1
HS22100361-05	MW-19S	06 Oct 2022 09:40			13 Oct 2022 17:25	1
HS22100361-08	MW-14A	06 Oct 2022 14:51			13 Oct 2022 17:25	1
HS22100361-09	MW-15A	06 Oct 2022 13:03			13 Oct 2022 17:25	1
HS22100361-10	MW-17	06 Oct 2022 15:33			13 Oct 2022 17:25	1
HS22100361-11	MW-18	06 Oct 2022 14:05			13 Oct 2022 17:25	1
HS22100361-12	MW-16	06 Oct 2022 17:30			13 Oct 2022 17:25	1
Batch ID: R419458 (0)	**Test Name :** CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993				**Matrix:** Water	
HS22100361-01	MW-3	05 Oct 2022 18:16			14 Oct 2022 15:30	1
HS22100361-02	MW-5S	06 Oct 2022 11:30			14 Oct 2022 15:30	1
HS22100361-03	MW-7S	05 Oct 2022 15:20			14 Oct 2022 15:30	1
HS22100361-04	MW-13	05 Oct 2022 18:12			14 Oct 2022 15:30	1
HS22100361-05	MW-19S	06 Oct 2022 09:40			14 Oct 2022 15:30	1
HS22100361-06	MW-20	05 Oct 2022 16:48			14 Oct 2022 15:30	1
HS22100361-07	MW-21	05 Oct 2022 15:40			14 Oct 2022 15:30	1
HS22100361-08	MW-14A	06 Oct 2022 14:51			14 Oct 2022 15:30	1
HS22100361-09	MW-15A	06 Oct 2022 13:03			14 Oct 2022 15:30	1
HS22100361-10	MW-17	06 Oct 2022 15:33			14 Oct 2022 15:30	1
HS22100361-11	MW-18	06 Oct 2022 14:05			14 Oct 2022 15:30	1
HS22100361-12	MW-16	06 Oct 2022 17:30			14 Oct 2022 15:30	1
HS22100361-13	DUP-3	05 Oct 2022 15:20			14 Oct 2022 15:30	1
Batch ID: R419513 (0)	**Test Name :** ALKALINITY BY SM 2320B-2011				**Matrix:** Water	
HS22100361-11	MW-18	06 Oct 2022 14:05			16 Oct 2022 19:10	1
HS22100361-12	MW-16	06 Oct 2022 17:30			16 Oct 2022 19:17	1
HS22100361-13	DUP-3	05 Oct 2022 15:20			16 Oct 2022 09:00	1

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Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R419523 (0)	**Test Name :** SULFIDE BY SM4500 S2-F-2011				**Matrix:** Water	
HS22100361-03	MW-7S	05 Oct 2022 15:20			12 Oct 2022 16:00	1
HS22100361-13	DUP-3	05 Oct 2022 15:20			12 Oct 2022 16:00	1
Batch ID: R419594 (0)	**Test Name :** FERRIC IRON - BY CALCULATION BY SM3500FED				**Matrix:** Water	
HS22100361-02	MW-5S	06 Oct 2022 11:30			17 Oct 2022 16:11	1
HS22100361-03	MW-7S	05 Oct 2022 15:20			17 Oct 2022 16:11	1
HS22100361-05	MW-19S	06 Oct 2022 09:40			17 Oct 2022 16:11	1
HS22100361-08	MW-14A	06 Oct 2022 14:51			17 Oct 2022 16:11	1
HS22100361-09	MW-15A	06 Oct 2022 13:03			17 Oct 2022 16:11	1
HS22100361-10	MW-17	06 Oct 2022 15:33			17 Oct 2022 16:11	1
HS22100361-11	MW-18	06 Oct 2022 14:05			17 Oct 2022 16:11	1
HS22100361-12	MW-16	06 Oct 2022 17:30			17 Oct 2022 16:11	1
HS22100361-13	DUP-3	05 Oct 2022 15:20			17 Oct 2022 16:11	1
Batch ID: R419601 (0)	**Test Name :** FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED				**Matrix:** Water	
HS22100361-02	MW-5S	06 Oct 2022 11:30			17 Oct 2022 17:04	1
HS22100361-03	MW-7S	05 Oct 2022 15:20			17 Oct 2022 17:04	1
HS22100361-05	MW-19S	06 Oct 2022 09:40			17 Oct 2022 17:04	1
HS22100361-08	MW-14A	06 Oct 2022 14:51			17 Oct 2022 17:04	1
HS22100361-09	MW-15A	06 Oct 2022 13:03			17 Oct 2022 17:04	1
HS22100361-10	MW-17	06 Oct 2022 15:33			17 Oct 2022 17:04	1
HS22100361-11	MW-18	06 Oct 2022 14:05			17 Oct 2022 17:04	1
HS22100361-12	MW-16	06 Oct 2022 17:30			17 Oct 2022 17:04	1
Batch ID: R421361 (0)	**Test Name :** FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED				**Matrix:** Water	
HS22100361-13	DUP-3	05 Oct 2022 15:20			08 Nov 2022 15:14	1

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Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R422793 (0)	**Test Name :** SUBCONTRACT ANALYSIS - RADIUM 228				**Matrix:** Water	
HS22100361-01	MW-3	05 Oct 2022 18:16			30 Nov 2022 09:14	1
HS22100361-01	MW-3	05 Oct 2022 18:16			30 Nov 2022 09:14	1
HS22100361-02	MW-5S	06 Oct 2022 11:30			30 Nov 2022 09:14	1
HS22100361-02	MW-5S	06 Oct 2022 11:30			30 Nov 2022 09:14	1
HS22100361-03	MW-7S	05 Oct 2022 15:20			30 Nov 2022 09:14	1
HS22100361-03	MW-7S	05 Oct 2022 15:20			30 Nov 2022 09:14	1
HS22100361-04	MW-13	05 Oct 2022 18:12			30 Nov 2022 09:14	1
HS22100361-04	MW-13	05 Oct 2022 18:12			30 Nov 2022 09:14	1
HS22100361-05	MW-19S	06 Oct 2022 09:40			30 Nov 2022 09:14	1
HS22100361-05	MW-19S	06 Oct 2022 09:40			30 Nov 2022 09:14	1
HS22100361-06	MW-20	05 Oct 2022 16:48			30 Nov 2022 09:14	1
HS22100361-06	MW-20	05 Oct 2022 16:48			30 Nov 2022 09:14	1
HS22100361-07	MW-21	05 Oct 2022 15:40			30 Nov 2022 09:14	1
HS22100361-07	MW-21	05 Oct 2022 15:40			30 Nov 2022 09:14	1
HS22100361-08	MW-14A	06 Oct 2022 14:51			30 Nov 2022 09:14	1
HS22100361-08	MW-14A	06 Oct 2022 14:51			30 Nov 2022 09:14	1
HS22100361-09	MW-15A	06 Oct 2022 13:03			30 Nov 2022 09:14	1
HS22100361-09	MW-15A	06 Oct 2022 13:03			30 Nov 2022 09:14	1
HS22100361-10	MW-17	06 Oct 2022 15:33			30 Nov 2022 09:14	1
HS22100361-10	MW-17	06 Oct 2022 15:33			30 Nov 2022 09:14	1
HS22100361-11	MW-18	06 Oct 2022 14:05			30 Nov 2022 09:14	1
HS22100361-11	MW-18	06 Oct 2022 14:05			30 Nov 2022 09:14	1
HS22100361-12	MW-16	06 Oct 2022 17:30			30 Nov 2022 09:14	1
HS22100361-12	MW-16	06 Oct 2022 17:30			30 Nov 2022 09:14	1
HS22100361-13	DUP-3	05 Oct 2022 15:20			30 Nov 2022 09:14	1
HS22100361-13	DUP-3	05 Oct 2022 15:20			30 Nov 2022 09:14	1
Batch ID: R423301 (0)	**Test Name :** PH BY SM4500H+ B-2011				**Matrix:** Water	
HS22100361-03	MW-7S	05 Oct 2022 15:20			06 Dec 2022 14:53	1
HS22100361-13	DUP-3	05 Oct 2022 15:20			06 Dec 2022 14:53	1
Batch ID: R423392 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Water	
HS22100361-03	MW-7S	05 Oct 2022 15:20			06 Dec 2022 13:49	1
HS22100361-13	DUP-3	05 Oct 2022 15:20			06 Dec 2022 13:49	1
Batch ID: R423401 (0)	**Test Name :** SPECIFIC CONDUCTANCE BY SM 2510B-2011				**Matrix:** Water	
HS22100361-03	MW-7S	05 Oct 2022 15:20			07 Dec 2022 14:57	1
Batch ID: R424299 (0)	**Test Name :** ALKALINITY BY SM 2320B-2011				**Matrix:** Water	
HS22100361-03	MW-7S	05 Oct 2022 15:20			19 Dec 2022 12:35	1

Revision: 2

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: 184786 (0) **Instrument: HG03** **Method: MERCURY BY SW7470A**

MBLK Sample ID: **MBLK-184786** Units: **mg/L** Analysis Date: **13-Oct-2022 13:36**
Client ID: Run ID: **HG03_419328** SeqNo: **6918332** PrepDate: **13-Oct-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.000200								

LCS Sample ID: **LCS-184786** Units: **mg/L** Analysis Date: **13-Oct-2022 13:42**
Client ID: Run ID: **HG03_419328** SeqNo: **6918333** PrepDate: **13-Oct-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00543	0.000200	0.005	0	109	80 - 120				

MS Sample ID: **HS22100143-01MS** Units: **mg/L** Analysis Date: **13-Oct-2022 13:46**
Client ID: Run ID: **HG03_419328** SeqNo: **6918335** PrepDate: **13-Oct-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00544	0.000200	0.005	-0.00007	110	75 - 125				

MSD Sample ID: **HS22100143-01MSD** Units: **mg/L** Analysis Date: **13-Oct-2022 13:47**
Client ID: Run ID: **HG03_419328** SeqNo: **6918336** PrepDate: **13-Oct-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00531	0.000200	0.005	-0.00007	108	75 - 125	0.00544	2.42	20	

The following samples were analyzed in this batch:

HS22100361-01	HS22100361-02	HS22100361-03	HS22100361-04
HS22100361-06	HS22100361-07	HS22100361-12	HS22100361-13

Revision: 2

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: 184802 (0) **Instrument: ICPMS07** **Method: ICP-MS METALS BY SW6020A**

MBLK Sample ID: **MBLKF1-184802** Units: **mg/L** Analysis Date: **17-Oct-2022 13:41**
Client ID: Run ID: **ICPMS07_419578** SeqNo: **6924323** PrepDate: **13-Oct-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	U	0.00200								
Arsenic	U	0.00200								
Barium	U	0.00400								
Beryllium	U	0.00200								
Boron	U	0.0200								
Cadmium	U	0.00200								
Calcium	U	0.500								
Chromium	U	0.00400								
Cobalt	U	0.00500								
Iron	U	0.200								
Lead	U	0.00200								
Lithium	U	0.00500								
Magnesium	0.01542	0.200								J
Molybdenum	U	0.00500								
Potassium	U	0.200								
Selenium	U	0.00200								
Sodium	U	0.200								
Thallium	U	0.00200								

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: 184802 (0) **Instrument: ICPMS07** **Method: ICP-MS METALS BY SW6020A**

MBLK Sample ID: **MBLK-184802** Units: **mg/L** Analysis Date: **14-Oct-2022 20:36**
Client ID: Run ID: **ICPMS07_419448** SeqNo: **6921823** PrepDate: **13-Oct-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	U	0.00200								
Arsenic	U	0.00200								
Barium	U	0.00400								
Beryllium	U	0.00200								
Boron	U	0.0200								
Cadmium	U	0.00200								
Calcium	U	0.500								
Chromium	U	0.00400								
Cobalt	U	0.00500								
Iron	U	0.200								
Lead	U	0.00200								
Lithium	U	0.00500								
Magnesium	0.01448	0.200								J
Molybdenum	U	0.00500								
Potassium	U	0.200								
Selenium	U	0.00200								
Sodium	U	0.200								
Thallium	U	0.00200								

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: 184802 (0) **Instrument: ICPMS07** **Method: ICP-MS METALS BY SW6020A**

LCS Sample ID: **LCS-184802** Units: **mg/L** Analysis Date: **14-Oct-2022 20:40**
Client ID: Run ID: **ICPMS07_419448** SeqNo: **6921825** PrepDate: **13-Oct-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.05231	0.00200	0.05	0	105	80 - 120				
Arsenic	0.05247	0.00200	0.05	0	105	80 - 120				
Barium	0.05067	0.00400	0.05	0	101	80 - 120				
Beryllium	0.05385	0.00200	0.05	0	108	80 - 120				
Boron	0.5302	0.0200	0.5	0	106	80 - 120				
Cadmium	0.05214	0.00200	0.05	0	104	80 - 120				
Calcium	5.398	0.500	5	0	108	80 - 120				
Chromium	0.05043	0.00400	0.05	0	101	80 - 120				
Cobalt	0.05095	0.00500	0.05	0	102	80 - 120				
Iron	5.197	0.200	5	0	104	80 - 120				
Lead	0.04742	0.00200	0.05	0	94.8	80 - 120				
Magnesium	5.345	0.200	5	0	107	80 - 120				
Molybdenum	0.05185	0.00500	0.05	0	104	80 - 120				
Potassium	5.37	0.200	5	0	107	80 - 120				
Selenium	0.05352	0.00200	0.05	0	107	80 - 120				
Sodium	5.273	0.200	5	0	105	80 - 120				
Thallium	0.04509	0.00200	0.05	0	90.2	80 - 120				

LCS Sample ID: **LCS-184802** Units: **mg/L** Analysis Date: **17-Oct-2022 15:09**
Client ID: Run ID: **ICPMS07_419578** SeqNo: **6924523** PrepDate: **13-Oct-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lithium	0.1116	0.00500	0.1	0	112	80 - 120				

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: 184802 (0) **Instrument:** ICPMS07 **Method:** ICP-MS METALS BY SW6020A

MS Sample ID: **HS22100361-05MS** Units: **mg/L** Analysis Date: **14-Oct-2022 20:45**
Client ID: **MW-19S** Run ID: **ICPMS07_419448** SeqNo: **6921828** PrepDate: **13-Oct-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.05428	0.00200	0.05	0.000108	108	80 - 120				
Arsenic	0.06231	0.00200	0.05	0.007204	110	80 - 120				
Barium	0.07144	0.00400	0.05	0.0164	110	80 - 120				
Beryllium	0.0537	0.00200	0.05	-0.000007	107	80 - 120				
Boron	9.689	0.0200	0.5	8.663	205	80 - 120				SEO
Cadmium	0.05198	0.00200	0.05	0.000179	104	80 - 120				
Calcium	48.08	0.500	5	40.69	148	80 - 120				SO
Chromium	0.05237	0.00400	0.05	0.000082	105	80 - 120				
Cobalt	0.05213	0.00500	0.05	0.000074	104	80 - 120				
Iron	5.354	0.200	5	0.000805	107	80 - 120				
Lead	0.05056	0.00200	0.05	-0.000027	101	80 - 120				
Magnesium	5.346	0.200	5	0.02283	106	80 - 120				
Molybdenum	0.5123	0.00500	0.05	0.4296	165	80 - 120				SO
Potassium	43.93	0.200	5	37.7	125	80 - 120				SO
Selenium	0.05641	0.00200	0.05	0.009441	93.9	80 - 120				
Sodium	698.6	0.200	5	672	531	80 - 120				SEO
Thallium	0.048	0.00200	0.05	0.000138	95.7	80 - 120				

MS Sample ID: **HS22100361-05MS** Units: **mg/L** Analysis Date: **17-Oct-2022 15:11**
Client ID: **MW-19S** Run ID: **ICPMS07_419578** SeqNo: **6924524** PrepDate: **13-Oct-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lithium	0.1158	0.00500	0.1	0.001111	115	80 - 120				

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: 184802 (0) **Instrument: ICPMS07** **Method: ICP-MS METALS BY SW6020A**

MSD Sample ID: **HS22100361-05MSD** Units: **mg/L** Analysis Date: **14-Oct-2022 20:47**
Client ID: **MW-19S** Run ID: **ICPMS07_419448** SeqNo: **6921829** PrepDate: **13-Oct-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.054	0.00200	0.05	0.000108	108	80 - 120	0.05428	0.519	20	
Arsenic	0.06228	0.00200	0.05	0.007204	110	80 - 120	0.06231	0.053	20	
Barium	0.07065	0.00400	0.05	0.0164	108	80 - 120	0.07144	1.11	20	
Beryllium	0.05313	0.00200	0.05	-0.000007	106	80 - 120	0.0537	1.07	20	
Boron	9.824	0.0200	0.5	8.663	232	80 - 120	9.689	1.39	20	SEO
Cadmium	0.05203	0.00200	0.05	0.000179	104	80 - 120	0.05198	0.0961	20	
Calcium	47.37	0.500	5	40.69	134	80 - 120	48.08	1.48	20	SO
Chromium	0.05201	0.00400	0.05	0.000082	104	80 - 120	0.05237	0.695	20	
Cobalt	0.05189	0.00500	0.05	0.000074	104	80 - 120	0.05213	0.458	20	
Iron	5.31	0.200	5	0.000805	106	80 - 120	5.354	0.82	20	
Lead	0.05001	0.00200	0.05	-0.000027	100	80 - 120	0.05056	1.11	20	
Magnesium	5.359	0.200	5	0.02283	107	80 - 120	5.346	0.244	20	
Molybdenum	0.5041	0.00500	0.05	0.4296	149	80 - 120	0.5123	1.62	20	SO
Potassium	43.71	0.200	5	37.7	120	80 - 120	43.93	0.491	20	SO
Selenium	0.05682	0.00200	0.05	0.009441	94.8	80 - 120	0.05641	0.733	20	
Sodium	693.6	0.200	5	672	431	80 - 120	698.6	0.717	20	SEO
Thallium	0.04735	0.00200	0.05	0.000138	94.4	80 - 120	0.048	1.36	20	

MSD Sample ID: **HS22100361-05MSD** Units: **mg/L** Analysis Date: **17-Oct-2022 15:13**
Client ID: **MW-19S** Run ID: **ICPMS07_419578** SeqNo: **6924525** PrepDate: **13-Oct-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lithium	0.1064	0.00500	0.1	0.001111	105	80 - 120	0.1158	8.39	20	

PDS Sample ID: **HS22100361-05PDS** Units: **mg/L** Analysis Date: **17-Oct-2022 13:46**
Client ID: **MW-19S** Run ID: **ICPMS07_419578** SeqNo: **6924326** PrepDate: **13-Oct-2022** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	17.81	0.400	10	8.43	93.8	75 - 125				
Sodium	948.6	4.00	200	752.1	98.2	75 - 125				

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: 184802 (0) **Instrument: ICPMS07** **Method: ICP-MS METALS BY SW6020A**

PDS Sample ID: **HS22100361-05PDS** Units: **mg/L** Analysis Date: **14-Oct-2022 20:49**
Client ID: **MW-19S** Run ID: **ICPMS07_419448** SeqNo: **6921830** PrepDate: **13-Oct-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	51.95	0.500	10	40.69	113	75 - 125				O
Molybdenum	0.5709	0.00500	0.1	0.4296	141	75 - 125				SO
Potassium	47.62	0.200	10	37.7	99.3	75 - 125				

SD Sample ID: **HS22100361-05SD** Units: **mg/L** Analysis Date: **14-Oct-2022 20:43**
Client ID: **MW-19S** Run ID: **ICPMS07_419448** SeqNo: **6921827** PrepDate: **13-Oct-2022** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Antimony	U	0.0100					0.000108	0	10	
Arsenic	0.006729	0.0100					0.007204	0	10	J
Barium	0.01651	0.0200					0.0164	0	10	J
Beryllium	U	0.0100					-0.000007	0	10	
Cadmium	U	0.0100					0.000179	0	10	
Calcium	40.35	2.50					40.69	0.853	10	
Chromium	U	0.0200					0.000082	0	10	
Cobalt	U	0.0250					0.000074	0	10	
Iron	U	1.00					0.000805	0	10	
Lead	U	0.0100					-0.000027	0	10	
Lithium	U	0.0250					0.001111	0	10	
Magnesium	U	1.00					0.02283	0	10	
Molybdenum	0.4164	0.0250					0.4296	3.08	10	
Potassium	38.62	1.00					37.7	2.44	10	
Selenium	0.006873	0.0100					0.009441	0	10	J
Thallium	U	0.0100					0.000138	0	10	

SD Sample ID: **HS22100361-05SD** Units: **mg/L** Analysis Date: **17-Oct-2022 14:37**
Client ID: **MW-19S** Run ID: **ICPMS07_419578** SeqNo: **6924516** PrepDate: **13-Oct-2022** DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Boron	8.805	2.00					8.43	4.44	10	
Sodium	768.3	20.0					752.1	2.15	10	

The following samples were analyzed in this batch:

HS22100361-01	HS22100361-02	HS22100361-03	HS22100361-04
HS22100361-05	HS22100361-06	HS22100361-07	HS22100361-08
HS22100361-09	HS22100361-10	HS22100361-11	HS22100361-12
HS22100361-13			

Revision: 2

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: 184803 (0) **Instrument:** ICPMS07 **Method:** DISSOLVED METALS BY SW6020A (DISSOLVED)

MBLK Sample ID: **MBLK-184803** Units: **mg/L** Analysis Date: **13-Oct-2022 23:33**
Client ID: Run ID: **ICPMS07_419402** SeqNo: **6920050** PrepDate: **13-Oct-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	U	0.200								
Molybdenum	U	0.00500								

LCS Sample ID: **LCS-184803** Units: **mg/L** Analysis Date: **13-Oct-2022 23:35**
Client ID: Run ID: **ICPMS07_419402** SeqNo: **6920051** PrepDate: **13-Oct-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	4.995	0.200	5	0	99.9	80 - 120				
Molybdenum	0.04908	0.00500	0.05	0	98.2	80 - 120				

MS Sample ID: **HS22100361-05MS** Units: **mg/L** Analysis Date: **13-Oct-2022 23:41**
Client ID: **MW-19S** Run ID: **ICPMS07_419402** SeqNo: **6920054** PrepDate: **13-Oct-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	5.091	0.200	5	-0.000909	102	75 - 125				
Molybdenum	0.4829	0.00500	0.05	0.4135	139	75 - 125				SO

MSD Sample ID: **HS22100361-05MSD** Units: **mg/L** Analysis Date: **13-Oct-2022 23:43**
Client ID: **MW-19S** Run ID: **ICPMS07_419402** SeqNo: **6920055** PrepDate: **13-Oct-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	4.96	0.200	5	-0.000909	99.2	75 - 125	5.091	2.61	20	
Molybdenum	0.4602	0.00500	0.05	0.4135	93.5	75 - 125	0.4829	4.8	20	O

PDS Sample ID: **HS22100361-05PDS** Units: **mg/L** Analysis Date: **13-Oct-2022 23:45**
Client ID: **MW-19S** Run ID: **ICPMS07_419402** SeqNo: **6920056** PrepDate: **13-Oct-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	9.716	0.200	10	-0.000909	97.2	75 - 125				
Molybdenum	0.5107	0.00500	0.1	0.4135	97.2	75 - 125				O

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: 184803 (0) **Instrument:** ICPMS07 **Method:** DISSOLVED METALS BY SW6020A (DISSOLVED)

SD Sample ID: **HS22100361-05SD** Units: **mg/L** Analysis Date: **13-Oct-2022 23:39**
Client ID: **MW-19S** Run ID: **ICPMS07_419402** SeqNo: **6920053** PrepDate: **13-Oct-2022** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Iron	U	1.00					-0.000909	0	10	
Molybdenum	0.3824	0.0250					0.4135	7.52	10	

The following samples were analyzed in this batch: HS22100361-02 HS22100361-03 HS22100361-05 HS22100361-08 HS22100361-09 HS22100361-10 HS22100361-11 HS22100361-12 HS22100361-13

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: 187029 (0) **Instrument: HG04** **Method: MERCURY BY SW7470A**

MBLK Sample ID: **MBLK-187029** Units: **mg/L** Analysis Date: **07-Dec-2022 09:37**
Client ID: Run ID: **HG04_423348** SeqNo: **7018227** PrepDate: **06-Dec-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.000200								

LCS Sample ID: **LCS-187029** Units: **mg/L** Analysis Date: **07-Dec-2022 09:39**
Client ID: Run ID: **HG04_423348** SeqNo: **7018228** PrepDate: **06-Dec-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00484	0.000200	0.005	0	96.8	80 - 120				

MS Sample ID: **HS22111667-07MS** Units: **mg/L** Analysis Date: **07-Dec-2022 09:43**
Client ID: Run ID: **HG04_423348** SeqNo: **7018230** PrepDate: **06-Dec-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00517	0.000200	0.005	-0.000002	103	75 - 125				

MSD Sample ID: **HS22111667-07MSD** Units: **mg/L** Analysis Date: **07-Dec-2022 09:44**
Client ID: Run ID: **HG04_423348** SeqNo: **7018231** PrepDate: **06-Dec-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00524	0.000200	0.005	-0.000002	105	75 - 125	0.00517	1.34	20	

The following samples were analyzed in this batch: HS22100361-05 HS22100361-08 HS22100361-09 HS22100361-10 HS22100361-11

Revision: 2

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: R418882 (0) **Instrument:** UV-2450 **Method:** FERROUS IRON BY SM3500 FE B

MBLK Sample ID: **MBLK-R418882** Units: **mg/L** Analysis Date: **07-Oct-2022 14:25**
Client ID: Run ID: **UV-2450_418882** SeqNo: **6912622** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron	U	0.0500				80 - 120				

LCS Sample ID: **LCS-R418882** Units: **mg/L** Analysis Date: **07-Oct-2022 14:25**
Client ID: Run ID: **UV-2450_418882** SeqNo: **6912621** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron	0.254	0.0500	0.25	0	102	80 - 120				

MS Sample ID: **HS22100361-05MS** Units: **mg/L** Analysis Date: **07-Oct-2022 14:25**
Client ID: **MW-19S** Run ID: **UV-2450_418882** SeqNo: **6912624** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron	0.297	0.0500	0.25	0.023	110	75 - 125				

MSD Sample ID: **HS22100361-05MSD** Units: **mg/L** Analysis Date: **07-Oct-2022 14:25**
Client ID: **MW-19S** Run ID: **UV-2450_418882** SeqNo: **6912623** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron	0.295	0.0500	0.25	0.023	109	75 - 125	0.297	0.676	20	

The following samples were analyzed in this batch:

HS22100361-02	HS22100361-03	HS22100361-05	HS22100361-08
HS22100361-09	HS22100361-10	HS22100361-11	HS22100361-13

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: R418883 (0) **Instrument:** UV-2450 **Method:** FERROUS IRON BY SM3500 FE D (DISSOLVED)

MBLK Sample ID: **MBLK-R418883** Units: **mg/L** Analysis Date: **07-Oct-2022 18:35**
Client ID: Run ID: **UV-2450_418883** SeqNo: **6912229** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron, Dissolved	U	0.0500								

LCS Sample ID: **LCS-R418883** Units: **mg/L** Analysis Date: **07-Oct-2022 18:35**
Client ID: Run ID: **UV-2450_418883** SeqNo: **6912228** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron, Dissolved	0.245	0.0500	0.25	0	98.0	80 - 120				

MS Sample ID: **HS22100361-05MS** Units: **mg/L** Analysis Date: **07-Oct-2022 18:35**
Client ID: **MW-19S** Run ID: **UV-2450_418883** SeqNo: **6912231** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron, Dissolved	0.242	0.0500	0.25	0.013	91.6	80 - 120				

MSD Sample ID: **HS22100361-05MSD** Units: **mg/L** Analysis Date: **07-Oct-2022 18:35**
Client ID: **MW-19S** Run ID: **UV-2450_418883** SeqNo: **6912230** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron, Dissolved	0.246	0.0500	0.25	0.013	93.2	80 - 120	0.242	1.64	20	

The following samples were analyzed in this batch:

HS22100361-02	HS22100361-03	HS22100361-05	HS22100361-08
HS22100361-09	HS22100361-10	HS22100361-11	HS22100361-13

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: R418890 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0, REV 2.1, 1993**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **07-Oct-2022 09:07**
Client ID: Run ID: **ICS-Integrion_418890** SeqNo: **6907705** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	U	0.500								
Fluoride	U	0.100								
Nitrogen, Nitrate (As N)	U	0.100								
Nitrogen, Nitrite (As N)	U	0.100								
Sulfate	U	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **07-Oct-2022 09:12**
Client ID: Run ID: **ICS-Integrion_418890** SeqNo: **6907706** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.03	0.500	20	0	100	90 - 110				
Fluoride	4.344	0.100	4	0	109	90 - 110				
Nitrogen, Nitrate (As N)	4.029	0.100	4	0	101	90 - 110				
Nitrogen, Nitrite (As N)	4.016	0.100	4	0	100	90 - 110				
Sulfate	20.02	0.500	20	0	100	90 - 110				

LCSD Sample ID: **LCSD** Units: **mg/L** Analysis Date: **07-Oct-2022 15:10**
Client ID: Run ID: **ICS-Integrion_418890** SeqNo: **6907743** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.09	0.500	20	0	100	90 - 110	20.03	0.269	20	
Fluoride	4.253	0.100	4	0	106	90 - 110	4.344	2.11	20	
Nitrogen, Nitrate (As N)	4.014	0.100	4	0	100	90 - 110	4.029	0.39	20	
Nitrogen, Nitrite (As N)	4.006	0.100	4	0	100	90 - 110	4.016	0.242	20	
Sulfate	20.07	0.500	20	0	100	90 - 110	20.02	0.22	20	

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: R418890 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MS Sample ID: **HS22100361-05MS** Units: **mg/L** Analysis Date: **07-Oct-2022 12:16**
Client ID: **MW-19S** Run ID: **ICS-Integrion_418890** SeqNo: **6907717** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	23.33	0.500	10	13.31	100	80 - 120				
Fluoride	3.575	0.100	2	1.592	99.2	80 - 120				
Nitrogen, Nitrate (As N)	2.03	0.100	2	0	102	80 - 120				
Nitrogen, Nitrite (As N)	0.1892	0.100	2	0	9.46	80 - 120				S
Sulfate	1260	0.500	10	1299	-394	80 - 120				SEO

MS Sample ID: **HS22100357-01MS** Units: **mg/L** Analysis Date: **07-Oct-2022 14:07**
Client ID: Run ID: **ICS-Integrion_418890** SeqNo: **6907733** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	95.93	0.500	10	87.97	79.6	80 - 120				SO
Fluoride	2.819	0.100	2	0.6009	111	80 - 120				
Nitrogen, Nitrate (As N)	2.765	0.100	2	0.7337	102	80 - 120				
Nitrogen, Nitrite (As N)	1.973	0.100	2	0.0234	97.5	80 - 120				
Sulfate	271.8	0.500	10	268.8	30.4	80 - 120				SEO

MSD Sample ID: **HS22100361-05MSD** Units: **mg/L** Analysis Date: **07-Oct-2022 12:21**
Client ID: **MW-19S** Run ID: **ICS-Integrion_418890** SeqNo: **6907718** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	23.35	0.500	10	13.31	100	80 - 120	23.33	0.09	20	
Fluoride	3.553	0.100	2	1.592	98.1	80 - 120	3.575	0.609	20	
Nitrogen, Nitrate (As N)	2.038	0.100	2	0	102	80 - 120	2.03	0.408	20	
Nitrogen, Nitrite (As N)	0.1861	0.100	2	0	9.30	80 - 120	0.1892	1.65	20	S
Sulfate	1261	0.500	10	1299	-381	80 - 120	1260	0.102	20	SEO

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: R418890 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0, REV 2.1, 1993**

MSD Sample ID: **HS22100357-01MSD** Units: **mg/L** Analysis Date: **07-Oct-2022 14:12**
Client ID: Run ID: **ICS-Integrion_418890** SeqNo: **6907734** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	95.86	0.500	10	87.97	78.9	80 - 120	95.93	0.074	20	SO
Fluoride	2.714	0.100	2	0.6009	106	80 - 120	2.819	3.79	20	
Nitrogen, Nitrate (As N)	2.77	0.100	2	0.7337	102	80 - 120	2.765	0.188	20	
Nitrogen, Nitrite (As N)	1.968	0.100	2	0.0234	97.2	80 - 120	1.973	0.274	20	
Sulfate	271	0.500	10	268.8	22.4	80 - 120	271.8	0.295	20	SEO

The following samples were analyzed in this batch: HS22100361-01 HS22100361-02 HS22100361-03 HS22100361-04 HS22100361-05 HS22100361-06 HS22100361-07 HS22100361-13

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: R418893 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0, REV 2.1, 1993**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **07-Oct-2022 17:49**
Client ID: Run ID: **ICS-Integrion_418893** SeqNo: **6907855** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	U	0.500								
Fluoride	U	0.100								
Nitrogen, Nitrate (As N)	U	0.100								
Sulfate	U	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **07-Oct-2022 17:55**
Client ID: Run ID: **ICS-Integrion_418893** SeqNo: **6907856** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.04	0.500	20	0	100	90 - 110				
Fluoride	4.339	0.100	4	0	108	90 - 110				
Nitrogen, Nitrate (As N)	4.03	0.100	4	0	101	90 - 110				
Sulfate	20	0.500	20	0	100.0	90 - 110				

MS Sample ID: **HS22100190-10MS** Units: **mg/L** Analysis Date: **07-Oct-2022 18:05**
Client ID: Run ID: **ICS-Integrion_418893** SeqNo: **6907858** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	12.61	0.500	10	2.487	101	80 - 120				
Fluoride	2.635	0.100	2	0.4622	109	80 - 120				
Nitrogen, Nitrate (As N)	2.203	0.100	2	0.1941	100	80 - 120				
Sulfate	888.9	0.500	10	909.4	-205	80 - 120				SEO

MSD Sample ID: **HS22100190-10MSD** Units: **mg/L** Analysis Date: **07-Oct-2022 18:10**
Client ID: Run ID: **ICS-Integrion_418893** SeqNo: **6907859** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	12.65	0.500	10	2.487	102	80 - 120	12.61	0.293	20	
Fluoride	2.482	0.100	2	0.4622	101	80 - 120	2.635	5.97	20	
Nitrogen, Nitrate (As N)	2.215	0.100	2	0.1941	101	80 - 120	2.203	0.516	20	
Sulfate	891.7	0.500	10	909.4	-177	80 - 120	888.9	0.315	20	SEO

The following samples were analyzed in this batch: HS22100361-08 HS22100361-09 HS22100361-10 HS22100361-11

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: R418914 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **08-Oct-2022 11:54**
Client ID: Run ID: **ICS-Integrion_418914** SeqNo: **6908300** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	U	0.500								
Fluoride	U	0.100								
Nitrogen, Nitrate (As N)	U	0.100								
Sulfate	U	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **08-Oct-2022 11:59**
Client ID: Run ID: **ICS-Integrion_418914** SeqNo: **6908301** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.01	0.500	20	0	100	90 - 110				
Fluoride	4.36	0.100	4	0	109	90 - 110				
Nitrogen, Nitrate (As N)	4.023	0.100	4	0	101	90 - 110				
Sulfate	20.09	0.500	20	0	100	90 - 110				

MS Sample ID: **HS22100361-12MS** Units: **mg/L** Analysis Date: **08-Oct-2022 12:10**
Client ID: **MW-16** Run ID: **ICS-Integrion_418914** SeqNo: **6908303** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	35.53	0.500	10	25.84	96.9	80 - 120				
Fluoride	3.381	0.100	2	1.252	106	80 - 120				
Nitrogen, Nitrate (As N)	2.149	0.100	2	0.1274	101	80 - 120				
Sulfate	882.7	0.500	10	905.9	-232	80 - 120				SEO

MSD Sample ID: **HS22100361-12MSD** Units: **mg/L** Analysis Date: **08-Oct-2022 12:15**
Client ID: **MW-16** Run ID: **ICS-Integrion_418914** SeqNo: **6908304** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	35.59	0.500	10	25.84	97.5	80 - 120	35.53	0.169	20	
Fluoride	3.306	0.100	2	1.252	103	80 - 120	3.381	2.24	20	
Nitrogen, Nitrate (As N)	2.163	0.100	2	0.1274	102	80 - 120	2.149	0.626	20	
Sulfate	885.3	0.500	10	905.9	-206	80 - 120	882.7	0.294	20	SEO

The following samples were analyzed in this batch: HS22100361-12

Revision: 2

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: R418923 (0) **Instrument:** UV-2450 **Method:** FERROUS IRON BY SM3500 FE B

MBLK Sample ID: **MBLK-R418923** Units: **mg/L** Analysis Date: **08-Oct-2022 11:00**
Client ID: Run ID: **UV-2450_418923** SeqNo: **6908550** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron	U	0.0500				80 - 120				

LCS Sample ID: **LCS-R418923** Units: **mg/L** Analysis Date: **08-Oct-2022 11:00**
Client ID: Run ID: **UV-2450_418923** SeqNo: **6908549** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron	0.25	0.0500	0.25	0	100	80 - 120				

MS Sample ID: **HS22100361-12MS** Units: **mg/L** Analysis Date: **08-Oct-2022 11:00**
Client ID: **MW-16** Run ID: **UV-2450_418923** SeqNo: **6908552** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron	0.255	0.0500	0.25	0.001	102	75 - 125				

MSD Sample ID: **HS22100361-12MSD** Units: **mg/L** Analysis Date: **08-Oct-2022 11:00**
Client ID: **MW-16** Run ID: **UV-2450_418923** SeqNo: **6908551** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron	0.258	0.0500	0.25	0.001	103	75 - 125	0.255	1.17	20	

The following samples were analyzed in this batch: HS22100361-12

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: R418924 (0) **Instrument:** UV-2450 **Method:** FERROUS IRON BY SM3500 FE D (DISSOLVED)

MBLK Sample ID: **MBLK-R418924** Units: **mg/L** Analysis Date: **08-Oct-2022 10:30**
Client ID: Run ID: **UV-2450_418924** SeqNo: **6908560** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron, Dissolved	U	0.0500								

LCS Sample ID: **LCS-R418924** Units: **mg/L** Analysis Date: **08-Oct-2022 10:30**
Client ID: Run ID: **UV-2450_418924** SeqNo: **6908559** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron, Dissolved	0.23	0.0500	0.25	0	92.0	80 - 120				

MS Sample ID: **HS22100361-12MS** Units: **mg/L** Analysis Date: **08-Oct-2022 10:30**
Client ID: **MW-16** Run ID: **UV-2450_418924** SeqNo: **6908562** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron, Dissolved	0.25	0.0500	0.25	0.009	96.4	80 - 120				

MSD Sample ID: **HS22100361-12MSD** Units: **mg/L** Analysis Date: **08-Oct-2022 10:30**
Client ID: **MW-16** Run ID: **UV-2450_418924** SeqNo: **6908561** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron, Dissolved	0.248	0.0500	0.25	0.009	95.6	80 - 120	0.25	0.803	20	

The following samples were analyzed in this batch: HS22100361-12

Revision: 2

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: R419006 (0) **Instrument:** WetChem_HS **Method:** PH BY SM4500H+ B-2011

DUP Sample ID: **HS22100366-04DUP** Units: **pH Units** Analysis Date: **10-Oct-2022 15:15**
Client ID: Run ID: **WetChem_HS_419006** SeqNo: **6910336** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.42	0.100					8.4	0.238	10	
Temp Deg C @pH	20.7	0					20.7	0	10	

The following samples were analyzed in this batch:

HS22100361-01	HS22100361-04	HS22100361-06	HS22100361-07
HS22100361-08	HS22100361-09	HS22100361-10	HS22100361-11

Revision: 2

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: R419091 (0) **Instrument:** WetChem_HS **Method:** PH BY SM4500H+ B-2011

DUP Sample ID: **HS22100361-05DUP** Units: **pH Units** Analysis Date: **11-Oct-2022 13:04**
Client ID: **MW-19S** Run ID: **WetChem_HS_419091** SeqNo: **6912411** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	10.8	0.100					10.76	0.371	10	
Temp Deg C @pH	20.3	0					20.2	0.494	10	

The following samples were analyzed in this batch: HS22100361-02 HS22100361-05 HS22100361-12

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: R419195 (0) **Instrument:** ManTech01 **Method:** ALKALINITY BY SM 2320B-2011

MBLK Sample ID: **WBLKW2-091722** Units: **mg/L** Analysis Date: **12-Oct-2022 00:23**
Client ID: Run ID: **ManTech01_419195** SeqNo: **6915034** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	U	5.00								
Alkalinity, Carbonate (As CaCO3)	U	5.00								
Alkalinity, Hydroxide (As CaCO3)	U	5.00								
Alkalinity, Total (As CaCO3)	U	5.00								

LCS Sample ID: **LCS1-101122** Units: **mg/L** Analysis Date: **11-Oct-2022 23:52**
Client ID: Run ID: **ManTech01_419195** SeqNo: **6915030** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Carbonate (As CaCO3)	966.9	5.00	1000	0	96.7	85 - 115				
Alkalinity, Total (As CaCO3)	977.9	5.00	1000	0	97.8	85 - 115				

LCSD Sample ID: **LCSD1-101122** Units: **mg/L** Analysis Date: **12-Oct-2022 00:01**
Client ID: Run ID: **ManTech01_419195** SeqNo: **6915031** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Carbonate (As CaCO3)	975.8	5.00	1000	0	97.6	85 - 115	966.9	0.911	20	
Alkalinity, Total (As CaCO3)	982.8	5.00	1000	0	98.3	85 - 115	977.9	0.493	20	

DUP Sample ID: **HS22100361-05DUP** Units: **mg/L** Analysis Date: **12-Oct-2022 00:39**
Client ID: **MW-19S** Run ID: **ManTech01_419195** SeqNo: **6915036** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	U	5.00					0	0	20	
Alkalinity, Carbonate (As CaCO3)	60.78	5.00					61	0.361	20	
Alkalinity, Hydroxide (As CaCO3)	65.65	5.00					68.69	4.53	20	
Alkalinity, Total (As CaCO3)	126.4	5.00					129.7	2.55	20	

The following samples were analyzed in this batch: HS22100361-02 HS22100361-05 HS22100361-08 HS22100361-09 HS22100361-10

Revision: 2

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: R419364 (0) **Instrument: WetChem_HS** **Method: SULFIDE BY SM4500 S2-F-2011**

MBLK Sample ID: **MBLK-R419364** Units: **mg/L** Analysis Date: **13-Oct-2022 17:52**
Client ID: Run ID: **WetChem_HS_419364** SeqNo: **6918991** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide	U	1.00								

LCS Sample ID: **LCS-R419364** Units: **mg/L** Analysis Date: **13-Oct-2022 17:52**
Client ID: Run ID: **WetChem_HS_419364** SeqNo: **6918990** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide	24	1.00	25	0	96.0	85 - 115				

LCSD Sample ID: **LCSD-R419364** Units: **mg/L** Analysis Date: **13-Oct-2022 17:52**
Client ID: Run ID: **WetChem_HS_419364** SeqNo: **6918989** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide	24.2	1.00	25	0	96.8	85 - 115	24	0.83	20	

MS Sample ID: **HS22100361-05MS** Units: **mg/L** Analysis Date: **13-Oct-2022 17:52**
Client ID: **MW-19S** Run ID: **WetChem_HS_419364** SeqNo: **6923112** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide	24.6	1.00	25	-0.8	102	80 - 120				

MS Sample ID: **HS22100190-10MS** Units: **mg/L** Analysis Date: **13-Oct-2022 17:52**
Client ID: Run ID: **WetChem_HS_419364** SeqNo: **6918992** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide	24.6	1.00	25	-3.4	112	80 - 120				

The following samples were analyzed in this batch:

HS22100361-02	HS22100361-05	HS22100361-08	HS22100361-09
HS22100361-10	HS22100361-11	HS22100361-12	

Revision: 2

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: R419366 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK Sample ID: **WBLK-101222** Units: **mg/L** Analysis Date: **12-Oct-2022 18:14**
Client ID: Run ID: **Balance1_419366** SeqNo: **6919038** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	U	10.0								

LCS Sample ID: **WLCS-101222** Units: **mg/L** Analysis Date: **12-Oct-2022 18:14**
Client ID: Run ID: **Balance1_419366** SeqNo: **6919039** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	1064	10.0	1000	0	106	85 - 115				

DUP Sample ID: **HS22100269-03DUP** Units: **mg/L** Analysis Date: **12-Oct-2022 18:14**
Client ID: Run ID: **Balance1_419366** SeqNo: **6919025** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	1038	10.0					1060	2.1	5	

DUP Sample ID: **HS22100268-01DUP** Units: **mg/L** Analysis Date: **12-Oct-2022 18:14**
Client ID: Run ID: **Balance1_419366** SeqNo: **6919023** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	880	10.0					882	0.227	5	

The following samples were analyzed in this batch: HS22100361-01 HS22100361-04 HS22100361-06 HS22100361-07

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: R419447 (0) **Instrument:** WetChem_HS **Method:** SPECIFIC CONDUCTANCE BY SM 2510B-2011

MBLK Sample ID: **MBLK-R419447** Units: **umhos/cm @ 25.0 °C** Analysis Date: **14-Oct-2022 14:00**
Client ID: Run ID: **WetChem_HS_419447** SeqNo: **6920837** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	U	5.00								

LCS Sample ID: **LCS-R419447** Units: **umhos/cm @ 25.0 °C** Analysis Date: **14-Oct-2022 14:00**
Client ID: Run ID: **WetChem_HS_419447** SeqNo: **6920836** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	1432	5.00	1413	0	101	80 - 120				

DUP Sample ID: **HS22100361-05DUP** Units: **umhos/cm @ 25.0 °C** Analysis Date: **14-Oct-2022 14:00**
Client ID: **MW-19S** Run ID: **WetChem_HS_419447** SeqNo: **6920838** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	3550	5.00					3570	0.562	20	

The following samples were analyzed in this batch:

HS22100361-01	HS22100361-02	HS22100361-04	HS22100361-05
HS22100361-06	HS22100361-07	HS22100361-08	HS22100361-09
HS22100361-10	HS22100361-11	HS22100361-12	HS22100361-13

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: R419454 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK Sample ID: **WBLK-101322** Units: **mg/L** Analysis Date: **13-Oct-2022 17:25**
Client ID: Run ID: **Balance1_419454** SeqNo: **6921052** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	U	10.0								

LCS Sample ID: **WLCS-101322** Units: **mg/L** Analysis Date: **13-Oct-2022 17:25**
Client ID: Run ID: **Balance1_419454** SeqNo: **6921053** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	1040	10.0	1000	0	104	85 - 115				

DUP Sample ID: **HS22100559-03DUP** Units: **mg/L** Analysis Date: **13-Oct-2022 17:25**
Client ID: Run ID: **Balance1_419454** SeqNo: **6921051** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	368	10.0					368	0	5	

DUP Sample ID: **HS22100361-05DUP** Units: **mg/L** Analysis Date: **13-Oct-2022 17:25**
Client ID: **MW-19S** Run ID: **Balance1_419454** SeqNo: **6921034** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	2184	10.0					2212	1.27	5	

The following samples were analyzed in this batch: HS22100361-02 HS22100361-05 HS22100361-08 HS22100361-09 HS22100361-10 HS22100361-11 HS22100361-12

Revision: 2

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: R419458 (0) **Instrument:** WetChem_HS **Method:** CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993

MBLK Sample ID: **MBLK-R419458** Units: **mg/L** Analysis Date: **14-Oct-2022 15:30**
Client ID: Run ID: **WetChem_HS_419458** SeqNo: **6921182** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	U	15.0								

LCS Sample ID: **LCS-R419458** Units: **mg/L** Analysis Date: **14-Oct-2022 15:30**
Client ID: Run ID: **WetChem_HS_419458** SeqNo: **6921181** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	99	15.0	100	0	99.0	85 - 115				

MS Sample ID: **HS22100361-05MS** Units: **mg/L** Analysis Date: **14-Oct-2022 15:30**
Client ID: **MW-19S** Run ID: **WetChem_HS_419458** SeqNo: **6921184** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	66	15.0	50	18	96.0	80 - 120				

MSD Sample ID: **HS22100361-05MSD** Units: **mg/L** Analysis Date: **14-Oct-2022 15:30**
Client ID: **MW-19S** Run ID: **WetChem_HS_419458** SeqNo: **6921183** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	66	15.0	50	18	96.0	80 - 120	66	0	20	

The following samples were analyzed in this batch:

HS22100361-01	HS22100361-02	HS22100361-03	HS22100361-04
HS22100361-05	HS22100361-06	HS22100361-07	HS22100361-08
HS22100361-09	HS22100361-10	HS22100361-11	HS22100361-12
HS22100361-13			

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: R419513 (0) **Instrument: ManTech01** **Method: ALKALINITY BY SM 2320B-2011**

MBLK Sample ID: **WBLKW3-101622** Units: **mg/L** Analysis Date: **16-Oct-2022 16:25**
Client ID: Run ID: **ManTech01_419513** SeqNo: **6922834** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	U	5.00								
Alkalinity, Carbonate (As CaCO3)	U	5.00								
Alkalinity, Hydroxide (As CaCO3)	U	5.00								
Alkalinity, Total (As CaCO3)	U	5.00								

LCS Sample ID: **WLCS3-101622** Units: **mg/L** Analysis Date: **16-Oct-2022 16:35**
Client ID: Run ID: **ManTech01_419513** SeqNo: **6922835** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Carbonate (As CaCO3)	1001	5.00	1000	0	100	85 - 115				
Alkalinity, Total (As CaCO3)	1013	5.00	1000	0	101	85 - 115				

LCSD Sample ID: **WLCSD3-101622** Units: **mg/L** Analysis Date: **16-Oct-2022 16:44**
Client ID: Run ID: **ManTech01_419513** SeqNo: **6922836** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Carbonate (As CaCO3)	964.5	5.00	1000	0	96.4	85 - 115	1001	3.67	20	
Alkalinity, Total (As CaCO3)	988.1	5.00	1000	0	98.8	85 - 115	1013	2.45	20	

DUP Sample ID: **HS22100500-01DUP** Units: **mg/L** Analysis Date: **16-Oct-2022 16:58**
Client ID: Run ID: **ManTech01_419513** SeqNo: **6922838** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	245.5	5.00					247.9	0.953	20	
Alkalinity, Carbonate (As CaCO3)	U	5.00					0	0	20	
Alkalinity, Hydroxide (As CaCO3)	U	5.00					0	0	20	
Alkalinity, Total (As CaCO3)	245.5	5.00					247.9	0.953	20	

The following samples were analyzed in this batch: HS22100361-11 HS22100361-12 HS22100361-13

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: R419523 (0) **Instrument: WetChem_HS** **Method: SULFIDE BY SM4500 S2-F-2011**

MBLK Sample ID: **MBLK-R419523** Units: **mg/L** Analysis Date: **12-Oct-2022 16:00**
Client ID: Run ID: **WetChem_HS_419523** SeqNo: **6923136** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide	U	1.00								

LCS Sample ID: **LCS-R419523** Units: **mg/L** Analysis Date: **12-Oct-2022 16:00**
Client ID: Run ID: **WetChem_HS_419523** SeqNo: **6923135** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide	24	1.00	25	0	96.0	85 - 115				

LCSD Sample ID: **LCSD-R419523** Units: **mg/L** Analysis Date: **12-Oct-2022 16:00**
Client ID: Run ID: **WetChem_HS_419523** SeqNo: **6923134** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide	24.2	1.00	25	0	96.8	85 - 115	24	0.83	20	

MS Sample ID: **HS22100285-06MS** Units: **mg/L** Analysis Date: **12-Oct-2022 16:00**
Client ID: Run ID: **WetChem_HS_419523** SeqNo: **6923137** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide	23.8	1.00	25	-0.2	96.0	80 - 120				

The following samples were analyzed in this batch: HS22100361-03 HS22100361-13

Revision: 2

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: R423301 (0) **Instrument:** WetChem_HS **Method:** PH BY SM4500H+ B-2011

DUP Sample ID: **HS22120071-01DUP** Units: **pH Units** Analysis Date: **06-Dec-2022 14:53**
Client ID: Run ID: **WetChem_HS_423301** SeqNo: **7016771** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.05	0.100					8.03	0.249	10	
Temp Deg C @pH	20.6	0					20.6	0	10	

The following samples were analyzed in this batch: HS22100361-03 HS22100361-13

Revision: 2

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: R423392 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK Sample ID: **WBLK-120622** Units: **mg/L** Analysis Date: **06-Dec-2022 13:49**
Client ID: Run ID: **Balance1_423392** SeqNo: **7018752** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	U	10.0								

LCS Sample ID: **WLCS-120622** Units: **mg/L** Analysis Date: **06-Dec-2022 13:49**
Client ID: Run ID: **Balance1_423392** SeqNo: **7018753** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	1066	10.0	1000	0	107	85 - 115				

DUP Sample ID: **HS22120022-01DUP** Units: **mg/L** Analysis Date: **06-Dec-2022 13:49**
Client ID: Run ID: **Balance1_423392** SeqNo: **7018746** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	800	10.0					808	0.995	5	

DUP Sample ID: **HS22120012-03DUP** Units: **mg/L** Analysis Date: **06-Dec-2022 13:49**
Client ID: Run ID: **Balance1_423392** SeqNo: **7018734** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	342	10.0					342	0	5	

The following samples were analyzed in this batch: HS22100361-03 HS22100361-13

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: R423401 (0) **Instrument:** WetChem_HS **Method:** SPECIFIC CONDUCTANCE BY SM 2510B-2011

MBLK Sample ID: **MBLK-R423401** Units: **umhos/cm @ 25.0 °C** Analysis Date: **07-Dec-2022 14:57**
Client ID: Run ID: **WetChem_HS_423401** SeqNo: **7018871** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	U	5.00								

LCS Sample ID: **LCS-R423401** Units: **umhos/cm @ 25.0 °C** Analysis Date: **07-Dec-2022 14:57**
Client ID: Run ID: **WetChem_HS_423401** SeqNo: **7018870** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	1420	5.00	1413	0	100	80 - 120				

DUP Sample ID: **HS22120031-01DUP** Units: **umhos/cm @ 25.0 °C** Analysis Date: **07-Dec-2022 14:57**
Client ID: Run ID: **WetChem_HS_423401** SeqNo: **7018872** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	1130	5.00					1129	0.0885	20	

The following samples were analyzed in this batch: HS22100361-03

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: HS22100361

QC BATCH REPORT

Batch ID: R424299 (0) **Instrument: ManTech01** **Method: ALKALINITY BY SM 2320B-2011**

MBLK Sample ID: **WBLKW1-221219** Units: **mg/L** Analysis Date: **19-Dec-2022 12:10**
Client ID: Run ID: **ManTech01_424299** SeqNo: **7039327** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	U	5.00								
Alkalinity, Carbonate (As CaCO3)	U	5.00								
Alkalinity, Hydroxide (As CaCO3)	U	5.00								
Alkalinity, Total (As CaCO3)	U	5.00								

LCS Sample ID: **LCS1-221219** Units: **mg/L** Analysis Date: **19-Dec-2022 12:19**
Client ID: Run ID: **ManTech01_424299** SeqNo: **7039328** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Carbonate (As CaCO3)	1004	5.00	1000	0	100	85 - 115				
Alkalinity, Total (As CaCO3)	1032	5.00	1000	0	103	85 - 115				

LCSD Sample ID: **LCSD1-221219** Units: **mg/L** Analysis Date: **19-Dec-2022 12:27**
Client ID: Run ID: **ManTech01_424299** SeqNo: **7039329** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Carbonate (As CaCO3)	993.6	5.00	1000	0	99.4	85 - 115	1004	1.08	20	
Alkalinity, Total (As CaCO3)	1025	5.00	1000	0	102	85 - 115	1032	0.759	20	

DUP Sample ID: **HS22100361-03DUP** Units: **mg/L** Analysis Date: **19-Dec-2022 12:41**
Client ID: **MW-7S** Run ID: **ManTech01_424299** SeqNo: **7039331** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	304.2	5.00					325.7	6.83	20	
Alkalinity, Carbonate (As CaCO3)	U	5.00					0	0	20	
Alkalinity, Hydroxide (As CaCO3)	U	5.00					0	0	20	
Alkalinity, Total (As CaCO3)	304.2	5.00					325.7	6.83	20	

The following samples were analyzed in this batch: HS22100361-03

Client: Altamira
Project: WFEC / CCR Landfill
WorkOrder: **HS22100361**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	22-041-0	27-Mar-2023
California	2919 2022-2023	30-Apr-2023
Dept of Defense	L21-682	31-Dec-2023
Florida	E87611-36	30-Jun-2023
Illinois	2000322022-9	09-May-2023
Kansas	E-10352; 2022-2023	31-Jul-2023
Kentucky	123043, 2022-2023	30-Apr-2023
Louisiana	03087, 2022-2023	30-Jun-2023
Maryland	343, 2022-2023	30-Jun-2023
North Carolina	624-2023	31-Dec-2023
North Dakota	R-193 2022-2023	30-Apr-2023
Oklahoma	2022-141	31-Aug-2023
Texas	T104704231-22-29	30-Apr-2023
Utah	TX026932022-13	31-Jul-2023

Sample Receipt Checklist

Work Order ID: HS22100361 **Date/Time Received:** **07-Oct-2022 09:00**

Client Name: Enviro Clean Services-Tulsa **Received by:** **Paresh M. Giga**

Completed By:	/S/ Corey Grandits	07-Oct-2022 12:23	**Reviewed by:**	/S/ Anna Kinchen	10-Oct-2022 09:50
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **W** Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	

Temperature(s)/Thermometer(s):	1.2uc/1.0c , 3.6uc/3.4c , 1.8uc/1.6c , 1.5uc/1.3c , 2.2uc/2.0c , 3.3uc/3.1c	IR31
Cooler(s)/Kit(s):	47641 , 47803 , 49643 , Lg Red , 49762 , Lg Blue	
Date/Time sample(s) sent to storage:	10/7/2022	

Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

Sample Receipt Checklist

Work Order ID: HS22100361 **Date/Time Received:** **07-Oct-2022 09:00**

Client Name: Enviro Clean Services-Tulsa **Received by:** **Paresh M. Giga**

Completed By:	/S/ Corey Grandits	08-Oct-2022 09:50	**Reviewed by:**	/S/ Anna Kinchen	10-Oct-2022 09:50
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **W** Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	

Temperature(s)/Thermometer(s):	1.9uc/1.7c	IR31
Cooler(s)/Kit(s):	48367	
Date/Time sample(s) sent to storage:	10/8/2022	

Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:			

Login Notes: Limited volume for MW-16, Sulfide only 50ml and unpreserved volume only 100ml received.

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

CHAIN OF CUSTODY RECORD

ALTAMIRA
formerly known as Enviro Clean Cardinal

PROJECT NUMBER:	WFEE1600022/0007
PROJECT NAME:	WFEC/CCR LANDFILL
COC:	1 of 3
CLIENT CONTACT:	HEATHER TIFFANY
CLIENT EMAIL:	HEATHER.TIFFANY@ALTAMIRA-US.COM; LABDATA@ALTAMIRA-US.COM
CLIENT PHONE:	405.618.2021
LABORATORY / LAB PM:	ALS/ANNA KINCHEN
CLIENT ADDRESS:	525 CENTRAL PARK DR #525 OKC, OK 73105
TAT:	STND
LAB ADDRESS:	10450 STANCLIFF RD. #210 HOUSTON, TX 77099
SPECIAL INSTRUCTIONS:	OK; 47641 1.2°; 47803 3.6°; 49643 1.8°; Rus - 1.5°; #31 c/f -0.2°
SHIPMENT METHOD:	FEDEX
TRACKING:	

PARAMETERS

NO.	SAMPLE DESCRIPTION	DATE	TIME	MATRIX	PRES.	NUMBER OF CONTAINERS	FIELD FILTERED (YES / NO)	APP A*	APP B*	NITRATE (SHORT HOLD)	COD	SP. COND.	Fe, TOTAL	Fe, FERROUS & FERRIC (SHORT HOLD)	DISS FERROUS Fe (SHORT HOLD)	DISS Fe, Mo, FERRIC Fe	K, Mg, Na	SULFIDE	HCO3, CO3, HYDROXIDE ALK	HOLD
1	MW-3	10/5/22	1816	W	2,3,9	6	N	X	X	X	X	X								
2	MW-5S	10/6/22	1130	↓	1,2,3,4,9	10	↓	X	X	X	X	X	X	X	X	X	X	X	X	
3	MW-7S	10/5/22	1520		↓	10		X	X	X	X	X	X	X	X	X	X	X	X	
4	MW-13	10/5/22	1812		2,3,9	6		X	X	X	X	X								
5	~~MW-14~~				~~1,2,3,4,9~~	~~10~~		~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	
6	~~MW-15A~~				↓	↓		~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	
7	~~MW-16~~							~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	
8	~~MW-17~~							~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	
9	~~MW-18~~							~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	
10	MW-19S	10/6/22	940		↓	↓		X	X	X	X	X	X	X	X	X	X	X	X	
11	MW-20	10/5/22	1648		2,3,9	6		X	X	X	X	X								
12	MW-21	10/5/22	1540	↓	2,3,9	6		X	X	X	X	X								
13	MW-19S MS	10/6/22	940		1,2,3,4,9	10		X	X	X	X	X	X	X	X	X	X	X	X	
14	MW-19S MSD	10/6/22	940	↓	1,2,3,4,9	10	↓	X	X	X	X	X	X	X	X	X	X	X	X	
15																				

SAMPLER(S) NAME:	Brad VanCleave
DATE:	10/6/22
TIME:	1400
Total # of Containers:	
SAMPLER(S) SIGNATURE:	[signature]
DATE:	10/6/22
TIME:	1400
RELINQUISHED BY:	Brad VanCleave
DATE:	10/6/22
TIME:	1400
RECEIVED BY:	[signature]
DATE:	10/7/22
TIME:	0800
LOGGED BY:	
DATE:	
COOLER TEMP:	

PRESERVATION KEY: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7- 4 Degrees C 8-9035

POINT OF ORIGIN: ☐ Norman ☒ Oklahoma City

Altamira
WFEC / CCR Landfill

HS22100361

CHAIN OF CUSTODY RECORD

ALTAMIRA formerly known as Enviro Clean Cardinal

PROJECT NUMBER: WFEE160022/0007	**PROJECT NAME:** WFEC/CCR LANDFILL
COC: 2 of X	
CLIENT CONTACT: HEATHER TIFFANY	**CLIENT EMAIL:** HEATHER.TIFFANY@ALTAMIRA-US.COM; LABDATA@ALTAMIRA-US.COM
CLIENT PHONE: 405.618.2021	**TAT:** STND
LABORATORY / LAB PM: ALS/ANNA KINCHEN	**CLIENT ADDRESS:** 525 CENTRAL PARK DR #500 OKC, OK 73105
LAB ADDRESS: 10450 STANCLIFF RD #210 HOUSTON, TX 77099	**SPECIAL INSTRUCTIONS:** *&**: PROJECT SPECIFIC LIST; SEE PROJECT NOTES
SHIPMENT METHOD: FEDEX	**TRACKING:**

PARAMETERS

NO.	SAMPLE DESCRIPTION	DATE	TIME	MATRIX	PRES.	NUMBER OF CONTAINERS	FIELD FILTERED (YES / NO)	APP A*	APP B*	NITRATE (SHORT HOLD)	COD	SP COND.	Fe, TOTAL	Fe, FERROUS (SHORT HOLD) & FERRIC HOLD	DISS. FERROUS Fe (SHORT HOLD)	DISS: Fe, Mn, FERRIC Fe	K, Mg, Na	SULFIDE	HCO3, CO3, HYDROXIDE ALK	HOLD
1	~~MW-3~~			W	2,3,9	6		X	X	X	X	X								
2	~~MW-5S~~				1,2,3,4,9	10		X	X	X	X	X	X	X	X	X	X	X	X	
3	~~MW-7S~~				↓	10		X	X	X	X	X	X	X	X	X	X	X	X	
4	~~MW-13~~				2,3,9	6		X	X	X	X	X								
5	MW-14A	10/6/22	1457		1,2,3,4,9	10	Y	X	X	X	X	X	X	X	X	X	X	X	X	
6	MW-15A	10/6/22	1303			10	Y	X	X	X	X	X	X	X	X	X	X	X	X	
7	~~MW-16~~					10		X	X	X	X	X	X	X	X	X	X	X	X	
8	MW-17	10/6/22	1533			10	Y	X	X	X	X	X	X	X	X	X	X	X	X	
9	~~MW-18~~					10		X	X	X	X	X	X	X	X	X	X	X	X	
10	~~MW-19S~~				↓	10		X	X	X	X	X	X	X	X	X	X	X	X	
11	~~MW-20~~				2,3,9	6		X	X	X	X	X								
12	~~MW-21~~			↓	2,3,9	6		X	X	X	X	X								
13	MW-18	10/6/22	1405	W	1,2,3,4,9	10	Y	X	X	X	X	X	X	X	X	X	X	X	X	
14	Temp Blank	—	—	W	—	1	N													
15																				

SAMPLER(S) NAME: [signature]	DATE: 10/6/22 TIME: 2000	Total # of Containers:	SAMPLER(S) SIGNATURE: [signature] DATE: 10/6/22 TIME: 2000
RELINQUISHED BY: [signature]	DATE: 10/6/22 TIME: 2000	RECEIVED BY: [signature]	DATE: 10/7/22 TIME: 0900
LOGGED BY:	DATE:	COOLER TEMP:	

PRESERVATION KEY: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-4 Degrees C 8-

POINT OF ORIGIN: ☐ Norman ☑ Oklahoma City ☐ Tulsa ☐ Yukon ☐ Midlan

Altamira
WFEC / CCR Landfill

HS22100361

CHAIN OF CUSTODY RECORD

ALTAMIRA
formerly known as Enviro Clean Cardinal

PROJECT NUMBER: WFEE160022/0007

PROJECT NAME: WFEC/CCR LANDFILL

COC : _____ of _____

CLIENT CONTACT: HEATHER TIFFANY

CLIENT EMAIL: HEATHER.TIFFANY@ALTAMIRACABOMA.COM

CLIENT PHONE: 405.618.2021

LABORATORY / LAB PM: ALS/ANNA KINCHEN

CLIENT ADDRESS: 525 CENTRAL PARK DR #525 OKC, OK 73105

TAT:

LAB ADDRESS: 10450 STANCLIFF RD #210 HOUSTON, TX 77099

SPECIAL INSTRUCTIONS: **&***: PROJECT SPECIFIC LIST, SEE PROJECT NOTES

SHIPMENT METHOD: FEDEX

TRACKING:

NO.	SAMPLE DESCRIPTION	DATE	TIME	MATRIX	PRES.	NUMBER OF CONTAINERS	FIELD FILTERED (YES / NO)	PARAMETERS: APP A**	APP B**	NITRATE (SHORT HOLD)	COD	SP COND	Fe, TOTAL	FERROUS & SHORT Fe, FERRIC (HOLD)	DISS FERROUS (SHORT HOLD) & DISS Fe (SHORT HOLD)	DISS Fe, NO FERRIC FOR	K, MG, NA	SULFIDE HCO3, CO3, HYDROXIDE ALK	HOLD
1	MW-3			W	2,3,9	6		X	X	X	X	X	X	X	X	X	X	X	
2	MW-5S				1,2,3,4,9	10		X	X	X	X	X	X	X	X	X	X	X	
3	MW-7S				↓	10		X	X	X	X	X	X	X	X	X	X	X	
4	MW-13				2,3,9	6		X	X	X	X	X							
5	MW-14A				1,2,3,4,9	10		X	X	X	X	X	X	X	X	X	X	X	
6	MW-15A							X	X	X	X	X	X	X	X	X	X	V	
7	MW-16	10/6/22	1730					X	X	X	X	X	X	X	X	X	X	X	
8	MW-17							X	X	X	X	X	X	X	X	X	X	X	
9	MW-18							X	X	X	X	X	X	X	X	X	X	X	
10	MW-19S				↓	↓		X	X	X	X	X	X	X	X	X	X	X	
11	MW-20				2,3,9	6		X	X	X	X	X							
12	MW-21				2,3,9	6		X	X	X	X	X							
13	Temp Blank			W	N	1	N												
14																			
15																			

HS22100361

SAMPLER(S) NAME: Bradley VanCleave

DATE: 10/7/22 TIME: 2030

Total # of Containers:

SAMPLER(S) SIGNATURE: Bradley VanCleave

DATE: 10/7/22 TIME: 2030

RELINQUISHED BY: Bradley VanCleave / Seth Bowden DATE: 10/7/22 TIME: 1630

RECEIVED BY: DATE: 10/8/22 TIME: 09:00

LOGGED BY: DATE: COOLER TEMP:

PRESERVATION KEY: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7- 4 Degrees C 8-903

POINT OF ORIGIN: ☐ Norman ☐ Oklahoma City ☐ Tulsa ☐ Yukon ☐ Midland

Altamira
WFEC / CCR Landfill

ALTAMIRA-US, LLC

CHAIN OF CUSTODY RECORD

ALTAMIRA
formerly known as Enviro Clean Cardinal

PROJECT NUMBER: WFEE160022/0008	PROJECT NAME: WFEC/ODEQ	COC: 2 of 3	
CLIENT CONTACT: HEATHER TIFFANY	CLIENT EMAIL: HEATHER.TIFFANY@ALTAMIRALABDATA-US.COM	CLIENT PHONE: 405.618.2021	
LABORATORY / LAB PM: ANNA KINCHEN	CLIENT ADDRESS: 525 CENTRAL PARK DR. #500 OKC, OK 73105	TAT: STND	
LAB ADDRESS: 10450 STANCLIFF RD #210 HOUSTON, TX 77099	SPECIAL INSTRUCTIONS: APP A: BgCa, Cl, F, pH, SO4, TDS		
SHIPMENT METHOD: FEDEX	TRACKING:		

NO.	SAMPLE DESCRIPTION	DATE	TIME	MATRIX	PRES.	NUMBER OF CONTAINERS	FIELD FILTERED (YES / NO)	APP A *	APP B *	Nitrate (Short Hold)	COD	SO4, Cond	Fe, Total	Ferrous + Ferric Fe, Ferrous (Short Hold)	Diss Ferrous (Fe2) (Short Hold)	Diss Fe, Mn, Ferric Fe	K, Mg, Na	Sulfide	HCO3, CO3, Hydroxide Alkalinity	HOLD
1	~~MW-FO1-1~~			W	2,9	2	N	X												
2	~~MW-FO2-1~~							X												
3	~~MW-FO2-2~~							X												
4	~~MW-FO3-1~~							X												
5	~~MW-FO6-1~~							X												
6	MW-FO[illegible]PL 2-1							X												
7	DUP 3	10/5/22	1520	W	1,2,3,4,9	10	Y	X	X	X	X	X	X	X	X	X	X	X	X	
8	CM-2	10/6/22	1021	W	1,2,4,9	6	Y	X		X	X	X	X	X	X	X	X	X	X	
9																				
10																				
11																				
12																				
13																				
14																				
15																				

47641 1.2°
47803 3.6°
49643 1.8°
RB 1.5° #31

HS22100301
Altamira
WFEC / ODEQ

SAMPLER(S) NAME: Brad VanCleave	DATE: 10/6/22 TIME: 1400	Total # of Containers:	SAMPLER(S) SIGNATURE:	DATE: 10/6/22 TIME: 1400	
RELINQUISHED BY: Brad VanCleave	DATE: 10/6/22 TIME: 1400	RECEIVED BY:	DATE: 10/7/22 TIME: 0920	LOGGED BY:	DATE: TIME: COOLER TEMP:

PRESERVATION KEY: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7- 4 Degrees C 8-9035 9-Other :

POINT OF ORIGIN: ☐ Norman ☒ Oklahoma City ☐ Tulsa ☐ Yukon ☐ Midland ☐ Other :

ALTAMIRA-US, LLC

ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

48367

CUSTODY SEAL

Date: 10/7/22 Time: 1630
Name: SETH BRAWNER
Company: ALTAMIRA

Seal Broken By:
Date: 10/08/22

48367

OCT 0 8 2022

ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

48367

CUSTODY SEAL

Date: 10/7/22 Time: 1630
Name: SETH BRAWNER
Company: ALTAMIRA

Seal Broken By:
Date: 10/08/22

48367

ORIGIN ID:SGRA (918) 794-7828
HEATHER TIFFANY
ALTAMIRA
2670 TRENTON RD

NORMAN, OK 73069
UNITED STATES US

SHIP DATE: 22SEP22
ACTWGT: 1.00 LB MAN
CAD: 0221247/CAFE3616
DIMS: 26x14x14 IN

TO SHIPPING DEPT
ALS LABORATORY GROUP
10450 STANCLIFF RD
SUITE 210
HOUSTON TX 77099
(281) 530-5656
REF: WFEC-CCR-IMPOUND-BO 87943-AK
RMA:

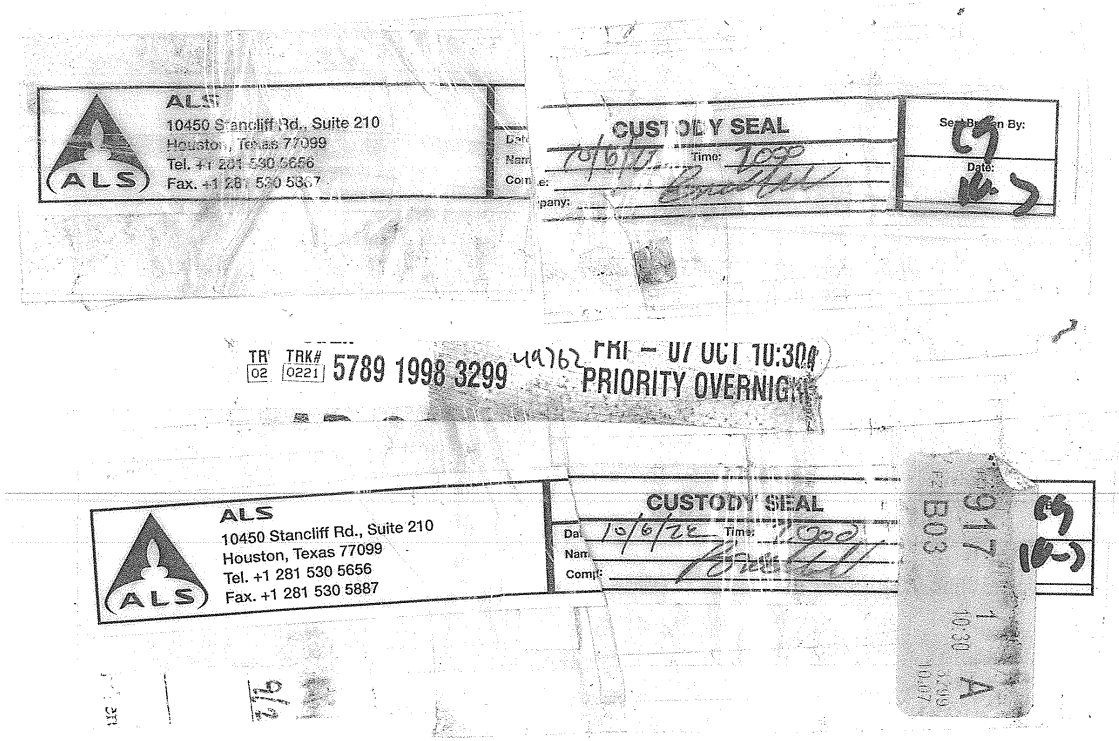
FedEx Express

FedEx
TRK# 0221 5789 1998 3288

SATURDAY 12:00P
PRIORITY OVERNIGH

XO SGRA

77099
TX-US IAH



ATTACHMENT B

DATA SUMMARY TABLES
(LANDFILL CCR UNIT)

ATTACHMENT B
GROUNDWATER SAMPLE DATA TO DATE FOR LANDFILL CCR UNIT
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	MCL or SMCL	Established Background (Det. Mon.)	Established GWPS (Ass. Mon.)	Sample ID:	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	DUP 2	MW-3	MW-3	MW-3 (Shallow)	MW-3 (Deep)
				Sample Date:	25-May-16	27-Jul-16	28-Sep-16	1-Dec-16	31-Jan-17	5-Apr-17	6-Jun-17	6-Jun-17	8-Aug-17	17-May-18	1-Aug-18	9-Aug-18
Detection Monitoring Parameters				***Units***	BACKGROUND 1	BACKGROUND 2	BACKGROUND 3	BACKGROUND 4	BACKGROUND 5	BACKGROUND 6	BACKGROUND 7		BACKGROUND 8	DETECTION MON. #1	EVALUATION SAMPLE	VERIFICATION SAMPLE
Boron	None	1.896	Not Applicable	mg/L	1.09	1.17	1.1	1.7	1.28 J*	0.88	1.15	1.2	1.06	1.23	1.12	1.25
Calcium	None	670.30	Not Applicable	mg/L	255	296	242	405	227	357	315	309	371	227	205	255
Chloride	250	18.51	Not Applicable	mg/L	13.6	12.4	13.8	13.7	14.2 J*	14.9	13.7	13.3 J*	13.2	13.4	14.3	13.4
Fluoride	4	0.6359	Not Applicable	mg/L	0.211	0.442	0.407	0.392	0.399	0.3	0.384	0.354 J*	0.331	0.324	0.338	0.291
pH (laboratory)	6.5 - 8.5	6.485 - 8.018	Not Applicable	S.U.	7.25	7.86	7.6	7.4	7.2	7.1	7.1	7	7	7.3	7.4	7.3
Sulfate	250	1,396	Not Applicable	mg/L	1350	1230	1230	1220	1140	1250	1230	1250	1070	1170	1190	1170
Total Dissolved Solids	500	2,191	Not Applicable	mg/L	2030	2060	1960	1990	2080	2090	2150	2200	2090	2180	2150	2160
Assessment Monitoring Parameters																
Antimony	0.006	Not Applicable	0.006 (MCL)	mg/L	<0.000500	<0.000500	<0.000800	<0.00400	<0.000800	<0.000800	<0.000800	<0.00400	<0.000800	---	---	---
Arsenic	0.010	Not Applicable	0.01 (MCL)	mg/L	0.00196 J	0.00117 J	0.00103 J	<0.00200	0.000602 J	0.00136 J	<0.000400	<0.00400	0.00172 J	---	---	---
Barium	2	Not Applicable	2 (MCL)	mg/L	0.0122	0.0118	0.0114	0.0207	0.0115	0.0116	0.0114	0.0134	0.118	---	---	---
Beryllium	0.004	Not Applicable	0.004 (MCL)	mg/L	<0.00100	<0.00100	<0.000100	<0.000500	<0.000100	<0.000100	<0.000100	<0.000500	<0.00100	---	---	---
Cadmium	0.005	Not Applicable	0.005 (MCL)	mg/L	<0.000400	<0.000400	<0.000100	<0.000500	<0.000100	<0.000100	<0.000100	<0.00100	<0.00100	---	---	---
Chromium	0.1	Not Applicable	0.1 (MCL)	mg/L	<0.000500	<0.000500	<0.000500	<0.00250	<0.000500	<0.000500	<0.000500	<0.00500	<0.000500	---	---	---
Cobalt	None	Not Applicable	0.006 (ACL)	mg/L	<0.000500	<0.000500	0.000239 J	<0.000500	0.000168 J	0.000138 J	<0.000100	<0.00100	0.000153 J	---	---	---
Fluoride	4	Not Applicable	4 (MCL)	mg/L	0.211	0.442	0.407	0.392	0.399	0.3	0.384	0.354 J*	0.331	0.324	0.338	0.291
Lead	0.015	Not Applicable	0.015 (MCL)	mg/L	<0.000200	<0.000200	<0.000100	<0.000500	<0.000100	<0.000100	<0.000100	<0.000500	<0.000100	---	---	---
Lithium	None	Not Applicable	0.235 (UTL)	mg/L	0.158	0.138	0.141	0.247 J	0.148	0.137	0.14	0.151 J	0.165	---	0.125	0.129
Mercury	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	---	---	---
Molybdenum	None	Not Applicable	0.1 (ACL)	mg/L	<0.000500	<0.000500	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.0100	<0.00100	---	<0.00100	<0.00100
Selenium	0.05	Not Applicable	0.05 (MCL)	mg/L	<0.000600	<0.000600	<0.000300	<0.00150	0.000345 J	<0.000300	0.00353	<0.00300	<0.000300	---	---	---
Thallium	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.000500	<0.000500	<0.000800	<0.00400	<0.000800	<0.000800	<0.000800	<0.00400	<0.000800	---	---	---
Ra-226 + Ra-228 (combined)	5	Not Applicable	5 (MCL)	pCi/L	1.07 +/- 0.292	0.868 +/- 0.271	1.05 +/- 0.330	1.67 +/- 0.473	1.09 +/- 0.303	0.899 +/- 0.276	2.03 +/- 0.371	0.843 +/- 0.246	0.967 +/- 0.277	---	---	---
Other Parameters																
Chemical Oxygen Demand (COD)	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<5.00	---	---	---
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	299	---	---	---
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<5.00	---	---	---
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	23.1	---	---	---
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate as N	10	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Potassium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	8.45	---	---	---
Sodium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	697	---	---	---
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	---	---	---	---	---	---	---	---	---	---	---	---
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																
Temperature	None	Not Applicable	Not Applicable	ºC	21.87	24.83	22.37	18.81	20.98	17.2	23.35	---	22.32	23.87	26.5	21.31
pH	6.5 - 8.5	Not Applicable	Not Applicable	S.U.	7.12	7.05	7.06	7.04	7.04	6.27	6.98	---	6.96	7.14	6.7	6.75
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	2342	2807	2804	2810	2804	2805	2767	---	2762	2758	2880	2864
Dissolved Oxygen	None	Not Applicable	Not Applicable	mg/L	0.49	0.26	0.09	0.2	0.3	0.59	0.36	---	0.09	0.7	2.1	3.76
Oxidation-Reduction Potential	None	Not Applicable	Not Applicable	mV	-27.5	-74.7	-92.1	-245.4	-171.1	241.7	-45	---	46.8	-46.3	-11.5	25
Turbidity	None	Not Applicable	Not Applicable	NTU	0.89	0.18	0.18	0.91	0.36	0.15	0.44	---	0.33	0.29	0.02	0.02

Notes:

1. MCL : Maximum Contaminant Level: Values obtained from EPA Primary/Secondary Drinking Water Standards.
   The MCL value for lead is the EPA's Action Level.
2. mg/L : milligrams per liter.
3. pCi/L : picoCuries per liter.
4. S.U. : Standard Units.
5. ºC : degrees Celsius.
6. µmhos/cm : micromhos per centimeter.
7. mV : millivolts.
8. NTU : Nephelometric Turbidity Unit.
9. < : Analyte not detected at the laboratory method detection limit (MDL).
10. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
11. Cells shaded in blue indicate results that are above the laboratory MDL.
12. The sulfate value for sample MW-25R collected June 9, 2017 was originally reported by the laboratory as 331 mg/L. The laboratory reprepared and analyzed the sample. The value for sulfate on this table is the result of the reanalysis.
13. --- : no analysis performed.
14. Data validation based on USEPA "National Functional Guidelines", OSWER 9355.0-132, EPA-540-R-014-002, Revision August 2014 for Organics and OSWER 9355.0-131, EPA-540-R-013-001, Revision August 2014 for Inorganics.
    U ( ) : The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
    UJ : The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
    J* : The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
    R : The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
15. New pumps were installed in MW-5S, MW-7S, MW-19S, and MW-25R in January 2017.
16. # : Data from Initial Assessment Monitoring determined to be invalid due to laboratory issues and are not to be used in statistical evaluation. Resampling was conducted in January 2019 (both filtered and unfiltered). Data from unfiltered analysis from January 2019 is appropriate for statistical evaluation.
17. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT B
GROUNDWATER SAMPLE DATA TO DATE FOR LANDFILL CCR UNIT
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	MCL or SMCL	Established Background (Det. Mon.)	Established GWPS (Ass. Mon.)	Sample ID:	MW-3		MW-3	MW-3	MW-3	MW-3	DUP 3	MW-3	MW-3	MW-3		MW-3
				Sample Date:	4-Oct-18	11-Jan-19	24-Apr-19	2-Oct-19	17-Jun-20	8-Oct-20		31-Mar-21	13-Oct-21	30-Mar-22	6-Jun-22	5-Oct-22
Detection Monitoring Parameters				***Units***	INITIAL ASSESSMENT MON.	INITIAL ASSESSMENT MON. (RESAMPLE) UNFILTERED / FILTERED	FIRST 2019 ASSESSMENT MON.	SECOND 2019 ASSESSMENT MON.	FIRST 2020 ASSESSMENT MON.	SECOND 2020 ASSESSMENT MON.		FIRST 2021 ASSESSMENT MON.	SECOND 2021 ASSESSMENT MON.	FIRST 2022 ASSESSMENT MON.	FIRST 2022 ASSESSMENT MON. (RESAMPLE)	SECOND 2022 ASSESSMENT MON.
Boron	None	1.896	Not Applicable	mg/L	1.06 #	1.05 / 1	1.39	1.06	1.16	0.903	0.946	1.01	0.939	1.06	---	1.09
Calcium	None	670.30	Not Applicable	mg/L	206 #	198 / 225	225	213	214	183	181	207	155	210	---	184
Chloride	250	18.51	Not Applicable	mg/L	13.8 #	13.4 / 16.3	13	13.7	13.7	13.8	13.8	14	12.7	13^	12.1	12.5
Fluoride	4	0.6359	Not Applicable	mg/L	0.318 #	0.373 / 0.52	0.396 J	0.319	0.203	0.328	0.337	0.376	0.258	2.12^	0.36	0.238
pH (laboratory)	6.5 - 8.5	6.485 - 8.018	Not Applicable	S.U.	7.7 #	7.19 / ---	7.64	7.07	6.9	7.36	7.5	7.24	5.99	1.61^	7.51	7.33
Sulfate	250	1,396	Not Applicable	mg/L	1270 #	1220 / 1450	1150	1210	1240	1320	1290	1260	1,200	1790^	1090	1,050
Total Dissolved Solids	500	2,191	Not Applicable	mg/L	2130 #	2110 / 2060	2100	2110	2150	2020	2010	2030	1,970	2700^	1860	1,900
Assessment Monitoring Parameters																
Antimony	0.006	Not Applicable	0.006 (MCL)	mg/L	<0.0008 #	<0.000400 / <0.000400	<0.000400	0.000410 J	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	---	<0.000400
Arsenic	0.010	Not Applicable	0.01 (MCL)	mg/L	<0.004 #	<0.000400 / <0.000400	<0.000400	<0.000400	<0.000400	0.000474 J	0.000464 J	0.000471 J	0.000422 J	0.000576 J	---	<0.000400
Barium	2	Not Applicable	2 (MCL)	mg/L	0.00954 J #	0.0101 / 0.011	0.0128	0.0112	0.013	0.0159	0.0158	0.0141	0.0136	0.0133	---	0.0108
Beryllium	0.004	Not Applicable	0.004 (MCL)	mg/L	<0.001 #	<0.000200 / <0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Cadmium	0.005	Not Applicable	0.005 (MCL)	mg/L	<0.0001 #	<0.000200 / <0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Chromium	0.1	Not Applicable	0.1 (MCL)	mg/L	<0.005 #	<0.000400 / <0.000400	<0.000400	0.00142 J	<0.000400	<0.000400	<0.000400	<0.000400	0.000467 J	<0.000400	---	<0.000400
Cobalt	None	Not Applicable	0.006 (ACL)	mg/L	0.000162 J #	<0.000200 / 0.000208 J	0.000232 J	0.000259 J	0.000289 J	<0.000200	<0.000200	<0.000200	<0.000200	0.000765 J	---	<0.000200
Fluoride	4	Not Applicable	4 (MCL)	mg/L	0.318 #	0.373 / 0.52	0.396 J	0.319	0.203	0.328	0.337	0.376	0.258	2.12^	0.360	0.238
Lead	0.015	Not Applicable	0.015 (MCL)	mg/L	<0.0001 #	<0.000600 / <0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	---	<0.000600
Lithium	None	Not Applicable	0.235 (UTL)	mg/L	0.147 J #	0.152 / 0.148	0.148	0.136	0.145	0.118	0.122	0.138	0.137	0.142	---	0.13
Mercury	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.0001 #	<0.0000300 / <0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	0.0000760 J	0.0000610 J	<0.0000300	---	<0.0000300
Molybdenum	None	Not Applicable	0.1 (ACL)	mg/L	<0.001 #	0.000613 J / 0.000622 J	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	0.000629 J	<0.000600	---	<0.000600
Selenium	0.05	Not Applicable	0.05 (MCL)	mg/L	<0.0003 #	<0.00110 / <0.0011	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	---	<0.00110
Thallium	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.0008 #	0.000560 J / 0.000499 J	<0.000200	0.000466 J	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Ra-226 + Ra-228 (combined)	5	Not Applicable	5 (MCL)	pCi/L	1.45 +/- 0.444 #	<0.67 / ---	<0.69	<0.79	1.02	1.65	1.7	1.43	<0.96	<0.81	---	3.46
Other Parameters																
Chemical Oxygen Demand (COD)	None	Not Applicable	Not Applicable	mg/L	<5 #	<5 / ---	<5.00	<5.00	---	<5.00	<5.00	<5.00	12.0 J	5.0 J	15.0	12.0 J
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	--- / ---	---	---	---	---	---	---	---	---	---	---
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	<5 / ---	---	---	---	---	---	---	---	---	---	---
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	318 / ---	---	---	---	---	---	---	---	---	---	---
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	<5 / ---	---	---	---	---	---	---	---	---	---	---
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	--- / ---	---	---	---	---	---	---	---	---	---	---
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	--- / ---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	--- / ---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	--- / ---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	--- / ---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	--- / ---	---	---	---	---	---	---	---	---	---	---
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	23.7 / 25.3	---	---	---	---	---	---	---	---	---	---
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	--- / ---	---	---	---	---	---	---	---	---	---	---
Nitrate as N	10	Not Applicable	Not Applicable	mg/L	<0.05 #	0.47 / 0.488	1.57	0.2	<0.0300	<0.0300	<0.0300	<0.0600	<0.0600	670	0.137	0.0481 J
Potassium	None	Not Applicable	Not Applicable	mg/L	---	8.17 / 8.4	---	---	---	---	---	---	---	---	---	---
Sodium	None	Not Applicable	Not Applicable	mg/L	---	388 / 429	---	---	---	---	---	---	---	---	---	---
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	2520 #	2730 / ---	---	---	---	2980	2970	2630	2680	20,900	3,030	2660
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	--- / ---	---	---	---	---	---	---	---	---	---	---
Field Parameters																
Temperature	None	Not Applicable	Not Applicable	ºC	23.1	13.1 / ---	18.31	24.37	23.62	23.8	---	15.9	20.4	16.4	25	22.9
pH	6.5 - 8.5	Not Applicable	Not Applicable	S.U.	6.95	6.93 / ---	7.31	7.18	7.15	7.22	---	7.04	7.11	7.29	7.24	7.04
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	2814	2699 / ---	2778	2797	2576	2670	---	2666	2,676	2,098	2,496	2,485
Dissolved Oxygen	None	Not Applicable	Not Applicable	mg/L	0.59	0.7 / ---	1.26	6.86	3.85	0.35	---	0.57	0.54	0.32	0.82	0.38
Oxidation-Reduction Potential	None	Not Applicable	Not Applicable	mV	-37	-12 / ---	-54.6	-34.4	-24.6	-102.6	---	-15.4	-47.3	-115.9	30.4	-78.5
Turbidity	None	Not Applicable	Not Applicable	NTU	4.23	1.8 / 1.04	0.57	1.14	3.36	1.3	---	3.11	2.50	0.33	3.10	2.65

Notes:

1. MCL : Maximum Contaminant Level: Values obtained from EPA Primary/Secondary Drinking Water Standards.
   The MCL value for lead is the EPA's Action Level.
2. mg/L : milligrams per liter.
3. pCi/L : picoCuries per liter.
4. S.U. : Standard Units.
5. ºC : degrees Celsius.
6. µmhos/cm : micromhos per centimeter.
7. mV : millivolts.
8. NTU : Nephelometric Turbidity Unit.
9. < : Analyte not detected at the laboratory method detection limit (MDL).
10. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
11. Cells shaded in blue indicate results that are above the laboratory MDL.
12. The sulfate value for sample MW-25R collected June 9, 2017 was originally reported by the laboratory as 331 mg/L. The laboratory reprepared and analyzed the sample. The value for sulfate on this table is the result of the reanalysis.
13. --- : no analysis performed.
14. Data validation based on USEPA "National Functional Guidelines", OSWER 9355.0-132, EPA-540-R-014-002, Revision August 2014 for Organics and OSWER 9355.0-131, EPA-540-R-013-001, Revision August 2014 for Inorganics.
    U ( ) : The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
    UJ : The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
    J* : The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
    R : The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
15. New pumps were installed in MW-5S, MW-7S, MW-19S, and MW-25R in January 2017.
16. # : Data from Initial Assessment Monitoring determined to be invalid due to laboratory issues and are not to be used in statistical evaluation. Resampling was conducted in January 2019 (both filtered and unfiltered). Data from unfiltered analysis from January 2019 is appropriate for statistical evaluation.
17. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT B
GROUNDWATER SAMPLE DATA TO DATE FOR LANDFILL CCR UNIT
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	MCL or SMCL	Established Background (Det. Mon.)	Established GWPS (Ass. Mon.)	Sample ID: / Sample Date:	MW-5S 13-Dec-16	DUP 3 13-Dec-16	MW-5S 25-Jan-17	MW-5S 3-Feb-17	MW-5S 29-Mar-17	MW-5S 7-Apr-17	MW-5S 1-Jun-17	MW-5S 9-Jun-17	MW-5S 14-Aug-17	MW-5S 22-May-18	MW-5S (Shallow) 1-Aug-18	MW-5S (Deep) 10-Aug-18
Detection Monitoring Parameters				***Units***	BACKGROUND 1		BACKGROUND 2	BACKGROUND 3	BACKGROUND 4	BACKGROUND 5	BACKGROUND 6	BACKGROUND 7	BACKGROUND 8	DETECTION MON. #1	EVALUATION SAMPLE	VERIFICATION SAMPLE
Boron	None	1.896	Not Applicable	mg/L	3.56	4.37	3.02	3.2	3.87	2.34	1.32	1.86	1.29	1.05	1.06	3.09
Calcium	None	670.30	Not Applicable	mg/L	32.9	28.1	27.8	29.9	30.8	37.9	54.7	58.2	46.6	74.7	59.1	24.9 J
Chloride	250	18.51	Not Applicable	mg/L	33.2	30.5	33.2	11.3	28.2	29.8	22.3	13.3	18.7	25	18.7	26.1
Fluoride	4	0.6359	Not Applicable	mg/L	1.84 J*	1.91	1.6	1.59	1.32	1.39	1.06	1.07	1.17	1.38	1.02	1.5
pH (laboratory)	6.5 - 8.5	6.485 - 8.018	Not Applicable	S.U.	8.2	8.3	7.9	7.8	7.8	7.9	7.4	7.5	7.5	7.6	7.7	8
Sulfate	250	626	Not Applicable	mg/L	527	540	504	501	415	469	326	321	301	369	294	384
Total Dissolved Solids	500	1,334	Not Applicable	mg/L	1230	1180	1200	1210	1070	1060	948	1010	980	950	880	1150
Assessment Monitoring Parameters																
Antimony	0.006	Not Applicable	0.006 (MCL)	mg/L	<0.00400	<0.000800	<0.000800	<0.000800	<0.000800	<0.000800	<0.000800	<0.00400	<0.000800	---	---	---
Arsenic	0.010	Not Applicable	0.01 (MCL)	mg/L	0.00202 J	0.00132 J	0.00187 J	0.00209	0.00147 J	0.00117 J	0.00115 J	<0.00200	0.00564 J	---	---	---
Barium	2	Not Applicable	2 (MCL)	mg/L	0.0267	0.0165	0.0212	0.0192	0.0144	0.0177	0.0183	0.023	0.0186	---	---	---
Beryllium	0.004	Not Applicable	0.004 (MCL)	mg/L	<0.000500	<0.000100	<0.000100	<0.000100	<0.00250	0.000419 U	<0.000100	<0.000500	<0.000100	---	---	---
Cadmium	0.005	Not Applicable	0.005 (MCL)	mg/L	<0.000500	<0.000100	<0.000100	<0.000100	0.000111 J	<0.000100	<0.000100	<0.000500	<0.000100	---	---	---
Chromium	0.1	Not Applicable	0.1 (MCL)	mg/L	<0.00250	0.000839 J	<0.000500	<0.00500	U (0.000520)	0.000761 J	<0.000500	<0.00250	U (0.00143)	---	---	---
Cobalt	None	Not Applicable	0.006 (ACL)	mg/L	0.000833 J	<0.000100	0.000214 J	<0.00100	0.00109 J	0.000123 J	<0.000100	0.00122 J	0.000338 J	---	---	---
Fluoride	4	Not Applicable	4 (MCL)	mg/L	1.84 J*	1.91	1.6	1.59	1.32	1.39	1.06	1.07	1.17	1.38	1.02	1.5
Lead	0.015	Not Applicable	0.015 (MCL)	mg/L	<0.000500	<0.000100	0.000126 J	0.000238 J	0.000218 J	0.000177 J	0.000142 J	<0.000500	0.000110 J	---	---	---
Lithium	None	Not Applicable	0.235 (UTL)	mg/L	0.0598 J	0.0582	0.0562	0.0617	0.0511	0.0523	0.0469 J	0.0588 J	0.0518	---	0.05	0.0486
Mercury	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	---	---	---
Molybdenum	None	Not Applicable	0.1 (ACL)	mg/L	0.00880 J	0.00781	0.00745	0.00606	0.0118 J*	0.00722	0.00828	0.00980 J	0.00737	---	0.00497	0.00387
Selenium	0.05	Not Applicable	0.05 (MCL)	mg/L	<0.00150	<0.00150	<0.000300	0.000938 J	0.00234 J	<0.000300	0.000449 J	<0.00150	<0.000300	---	---	---
Thallium	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.00400	<0.000800	<0.000800	<0.000800	<0.000800	<0.000800	<0.000800	<0.00400	<0.000800	---	---	---
Ra-226 + Ra-228 (combined)	5	Not Applicable	5 (MCL)	pCi/L	1.25 +/- 0.479	0.738 +/- 0.354	1.55 +/- 0.466	0.863 +/- 0.332	1.06 +/- 0.305	0.597 +/- 0.264	1.71 +/- 0.392	0.684 +/- 0.239	0.827 +/- 0.274	---	---	---
Other Parameters																
Chemical Oxygen Demand (COD)	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<5.00	---	---	---
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	418	---	---	---
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<5.00	---	---	---
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	5.19	---	---	---
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate as N	10	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Potassium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	4.14	---	---	---
Sodium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	307	---	---	---
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	---	---	---	---	---	---	---	---	---	---	---	---
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																
Temperature	None	Not Applicable	Not Applicable	°C	17.94	---	16.45	14.65	20.07	19.17	20.47	21.58	22.46	20.24	25.07	23.59
pH	6.5 - 8.5	Not Applicable	Not Applicable	S.U.	7.9	---	7.84	7.79	7.72	7.76	7.51	7.73	7.79	7.85	7.19	7.62
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	1899	---	1919	1905	1734	1764	1615	1718	1760	1516	1483	1843
Dissolved Oxygen	None	Not Applicable	Not Applicable	mg/L	0.94	---	0.39	0.33	0.37	0.27	0.07	0.07	0.05	0.13	5.05	1.37
Oxidation-Reduction Potential	None	Not Applicable	Not Applicable	mV	-110.4	---	-157	-82.1	-61.6	-33.2	-79.7	27.3	21.5	-104.7	142.8	-40.1
Turbidity	None	Not Applicable	Not Applicable	NTU	37	---	4.09	2.45	0.83	1.98	1.52	1.01	1.14	0.41	0.02	1.12

Notes:

1. MCL : Maximum Contaminant Level: Values obtained from EPA Primary/Secondary Drinking Water Standards.
   The MCL value for lead is the EPA's Action Level.
2. mg/L : milligrams per liter.
3. pCi/L : picoCuries per liter.
4. S.U. : Standard Units.
5. ºC : degrees Celsius.
6. µmhos/cm : micromhos per centimeter.
7. mV : millivolts.
8. NTU : Nephelometric Turbidity Unit.
9. < : Analyte not detected at the laboratory method detection limit (MDL).
10. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
11. Cells shaded in blue indicate results that are above the laboratory MDL.
12. The sulfate value for sample MW-25R collected June 9, 2017 was originally reported by the laboratory as 331 mg/L. The laboratory reprepared and analyzed the sample. The value for sulfate on this table is the result of the reanalysis.
13. --- : no analysis performed.
14. Data validation based on USEPA "National Functional Guidelines", OSWER 9355.0-132, EPA-540-R-014-002, Revision August 2014 for Organics and OSWER 9355.0-131, EPA-540-R-013-001, Revision August 2014 for Inorganics.
    U ( ) : The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
    UJ : The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
    J* : The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
    R : The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
15. New pumps were installed in MW-5S, MW-7S, MW-19S, and MW-25R in January 2017.
16. # : Data from Initial Assessment Monitoring determined to be invalid due to laboratory issues and are not to be used in statistical evaluation. Resampling was conducted in January 2019 (both filtered and unfiltered). Data from unfiltered analysis from January 2019 is appropriate for statistical evaluation.
17. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT B
GROUNDWATER SAMPLE DATA TO DATE FOR LANDFILL CCR UNIT
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	MCL or SMCL	Established Background (Det. Mon.)	Established GWPS (Ass. Mon.)	Sample ID: / Sample Date:	MW-5S	MW-5S		MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S		MW-5S
					2-Oct-18	10-Jan-19		23-Apr-19	2-Oct-19	18-Jun-20	8-Oct-20	1-Apr-21	14-Oct-21	31-Mar-22	7-Jun-22	6-Oct-22
					INITIAL ASSESSMENT MON.	INITIAL ASSESSMENT MON. (RESAMPLE)		FIRST 2019 ASSESSMENT MON.	SECOND 2019 ASSESSMENT MON.	FIRST 2020 ASSESSMENT MON.	SECOND 2020 ASSESSMENT MON.	FIRST 2021 ASSESSMENT MON.	SECOND 2021 ASSESSMENT MON.	FIRST 2022 ASSESSMENT MON.	FIRST 2022 ASSESSMENT MON. (RESAMPLE)	SECOND 2022 ASSESSMENT MON.
Detection Monitoring Parameters				Units		UNFILTERED	FILTERED									
Boron	None	1.896	Not Applicable	mg/L	2.82 #	2.73	1.82	1.87	2.49	0.811	2.57	2.04	1.82	1.64	---	2.94
Calcium	None	670.30	Not Applicable	mg/L	25 #	27.7	27.8	57	22.5	68.2	19.6	33.4	21.0	53.8	---	24.1
Chloride	250	18.51	Not Applicable	mg/L	28.3 #	30.5	29.9	21.8	25.1	19.5	25.6	23.9	26.4	23^	24.1	25.6
Fluoride	4	0.6359	Not Applicable	mg/L	1.54 #	1.54	1.5	1.11	1.54	0.824	1.51	1.24	1.57	3.24^	1.41	1.4
pH (laboratory)	6.5 - 8.5	6.485 - 8.018	Not Applicable	S.U.	8.7 #	7.65	---	8.11	7.55	7.65	8.21	7.9	8.16	1.68^	8.19	7.89
Sulfate	250	626	Not Applicable	mg/L	447 #	457	472	394	434	408	485	477	499	1540^	503	482
Total Dissolved Solids	500	1,334	Not Applicable	mg/L	1140 #	1120	1210	1090	1180	904	1080	1140	1140	1540^	1170	1100
Assessment Monitoring Parameters																
Antimony	0.006	Not Applicable	0.006 (MCL)	mg/L	<0.0008 #	0.00122 J	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	---	<0.000400
Arsenic	0.010	Not Applicable	0.01 (MCL)	mg/L	0.661 #	0.000737 J	0.000765 J	0.000523 J	0.000736 J	<0.000400	0.000453 J	<0.000400	<0.000400	0.000423 J	---	0.000433 J
Barium	2	Not Applicable	2 (MCL)	mg/L	0.012 #	0.012	0.0116	0.0141	0.00928	0.021	0.00787	0.00867	0.00732	0.0113	---	0.00653
Beryllium	0.004	Not Applicable	0.004 (MCL)	mg/L	<0.0005 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Cadmium	0.005	Not Applicable	0.005 (MCL)	mg/L	<0.0001 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Chromium	0.1	Not Applicable	0.1 (MCL)	mg/L	0.832 #	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	---	<0.000400
Cobalt	None	Not Applicable	0.006 (ACL)	mg/L	<0.0001 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	0.000237 J	---	<0.000200
Fluoride	4	Not Applicable	4 (MCL)	mg/L	1.54 #	1.54	1.5	1.11	1.54	0.824	1.51	1.24	1.57	3.24^	1.41	1.4
Lead	0.015	Not Applicable	0.015 (MCL)	mg/L	<0.0001 #	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	---	<0.000600
Lithium	None	Not Applicable	0.235 (UTL)	mg/L	0.0691 J #	0.0644	0.0642	0.0604	0.0536	0.049	0.0546	0.0496	0.0532	0.0654	---	0.0572
Mercury	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.0001 #	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	0.0000870 J	<0.0000300	<0.0000300	---	<0.0000300
Molybdenum	None	Not Applicable	0.1 (ACL)	mg/L	<0.005 #	0.00512	0.00335 J	0.00485 J	0.00315 J	0.00361 J	0.00244 J	0.00234 J	0.00387 J	0.00257 J	---	0.00210 J
Selenium	0.05	Not Applicable	0.05 (MCL)	mg/L	<0.0003 #	<0.0011	<0.0011	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	---	<0.00110
Thallium	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.0008 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Ra-226 + Ra-228 (combined)	5	Not Applicable	5 (MCL)	pCi/L	0.611 +/- 0.249 #	<0.79	---	<0.64	1.44	1.25	1.15	0.95	1.28	<0.79	---	1.69
Other Parameters																
Chemical Oxygen Demand (COD)	None	Not Applicable	Not Applicable	mg/L	<5.00 #	<5.00	---	<5.00	<5.00	---	<5.00	<5.00	6.00 J	<5.00^	17.0	7.00 J
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	412	444	405	470	<5^	419	430
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	12.6	---	---	---	15	20.5	<5	9.52	<5^	<5	<5
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	427	---	---	---	397	424	405	460	<5^	419	430
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	<5	---	---	---	<5	<5	<5	<5.00	<5^	<5	<5
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<0.0120	<0.0120	0.0170 J	0.0270 J	0.0435 J^	0.0311 J	<0.0120
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<0.0120	<0.0120	<0.0120	<0.0120	<0.0120^	0.0138 J	<0.0120
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.029(J)	<0.0200	<0.020	<0.0200	<0.02^	<0.02	<0.02
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<0.020	<0.020 H	<0.02^	<0.02	<0.02
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<0.020	0.0270 J	0.0435 J^	0.0311 J	<0.02
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<0.020	<0.020	<0.02^	<0.02	<0.02
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	5.73	5.58	---	---	5.16	4.38	4.53	4.60	5.79	---	4.79
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.00308(J)	0.00244 J	0.00287 J	0.00296 J	0.00248 J	---	0.00232 J
Nitrate as N	10	Not Applicable	Not Applicable	mg/L	0.089 J #	0.964	0.916	0.665	0.212	<0.0300	<0.0300	00287 J	0.0984 J	705^	0.0996 J,H	0.243
Potassium	None	Not Applicable	Not Applicable	mg/L	---	4.49	4.27	---	---	3.48	3.94	3.25	3.96	3.74	---	4.17
Sodium	None	Not Applicable	Not Applicable	mg/L	---	405	257	---	---	277	335	312	243	341	---	387
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	1730 #	1870	---	---	---	---	1960	1770	1820	15600^	2,280	1990
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<1	1.97	<1	<1.00	<1^	<1	<1
Field Parameters																
Temperature	None	Not Applicable	Not Applicable	°C	25.3	13.4	---	18.78	25.18	24.37	21.5	14.7	23.7	16.4	19.8	24.9
pH	6.5 - 8.5	Not Applicable	Not Applicable	S.U.	7.61	7.56	---	7.95	7.91	7.9	7.83	7.74	7.85	7.77	7.9	7.73
Specific Conductance	None	Not Applicable	Not Applicable	μmhos/cm	1871	1791	---	1669	1826	1665	1794	1745	1,863	1372	1,820	1,884
Dissolved Oxygen	None	Not Applicable	Not Applicable	mg/L	0.21	0.63	---	0.85	0.45	1.89	0.32	0.81	0.36	0.31	2.7	0.44
Oxidation-Reduction Potential	None	Not Applicable	Not Applicable	mV	-125.1	-30.9	---	19.7	-54.1	-48.2	168.1	283.3	-59.9	46.2	20.5	-33.9
Turbidity	None	Not Applicable	Not Applicable	NTU	3.3	4.51	1.27	1.16	0.94	2.88	1.97	2.85	2.16	1.61	1.72	2.71

Notes:
1. MCL : Maximum Contaminant Level: Values obtained from EPA Primary/Secondary Drinking Water Standards.
   The MCL value for lead is the EPA's Action Level.
2. mg/L : milligrams per liter.
3. pCi/L : picoCuries per liter.
4. S.U. : Standard Units.
5. °C : degrees Celsius.
6. μmhos/cm : micromhos per centimeter.
7. mV : millivolts.
8. NTU : Nephelometric Turbidity Unit.
9. < : Analyte not detected at the laboratory method detection limit (MDL).
10. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
11. Cells shaded in blue indicate results that are above the laboratory MDL.
12. The sulfate value for sample MW-25R collected June 9, 2017 was originally reported by the laboratory as 331 mg/L. The laboratory reprepared and analyzed the sample. The value for sulfate on this table is the result of the reanalysis.
13. --- : no analysis performed.
14. Data validation based on USEPA "National Functional Guidelines", OSWER 9355.0-132, EPA-540-R-014-002, Revision August 2014 for Organics and OSWER 9355.0-131, EPA-540-R-013-001, Revision August 2014 for Inorganics.
    U ( ) : The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
    UJ : The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
    J* : The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
    R : The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
15. New pumps were installed in MW-5S, MW-7S, MW-19S, and MW-25R in January 2017.
16. # : Data from Initial Assessment Monitoring determined to be invalid due to laboratory issues and are not to be used in statistical evaluation. Resampling was conducted in January 2019 (both filtered and unfiltered). Data from unfiltered analysis from January 2019 is appropriate for statistical evaluation.
17. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT B
GROUNDWATER SAMPLE DATA TO DATE FOR LANDFILL CCR UNIT
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	MCL or SMCL	Established Background (Det. Mon.)	Established GWPS (Ass. Mon.)	Sample ID: / Sample Date:	MW-7S 13-Dec-16	MW-7S 25-Jan-17	MW-7S 3-Feb-17	MW-7S 29-Mar-17	MW-7S 7-Apr-17	MW-7S 31-May-17	DUP 1 31-May-17	MW-7S 9-Jun-17	MW-7S 10-Aug-17	MW-7S 17-May-18	MW-7S (Shallow) 3-Aug-18	DUP1 (Shallow) 3-Aug-18	MW-7S (Deep) 10-Aug-18
					BACKGROUND 1	BACKGROUND 2	BACKGROUND 3	BACKGROUND 4	BACKGROUND 5	BACKGROUND 6		BACKGROUND 7	BACKGROUND 8	DETECTION MON. #1	EVALUATION SAMPLE		VERIFICATION SAMPLE
Detection Monitoring Parameters				*Units*													
Boron	None	1.896	Not Applicable	mg/L	3.8	0.891	0.557	<0.875	0.382	1.7	1.92	1.84	2.21	1.25	0.283	0.279	3.31
Calcium	None	670.30	Not Applicable	mg/L	53.8	349	267	411	415	71	168	175	80.6	178	90.3	88.8	142
Chloride	250	18.51	Not Applicable	mg/L	17.7	23.8	19.8	17.5	21.8	14.9	15.5	16.3	16.2	17.6	16.4	16.5	17
Fluoride	4	0.6359	Not Applicable	mg/L	1.02 J*	0.569	0.497	0.368	0.425	0.607	0.58	0.579	0.744	0.509	0.771	0.733	0.664
pH (laboratory)	6.5 - 8.5	6.485 - 8.018	Not Applicable	S.U.	8.4	7.3	7.3	7.2	7.5	7.5	7.4	7.3	7.4	7.6	7.6	7.8	7.7
Sulfate	250	1,281	Not Applicable	mg/L	465	907	893	893	1120	587	606	619	450	860	545	545	623
Total Dissolved Solids	500	1,863	Not Applicable	mg/L	1070	1570	1570	1530	1610	1220	1230	1300	1120	1600	1210	1180	1330
Assessment Monitoring Parameters																	
Antimony	0.006	Not Applicable	0.006 (MCL)	mg/L	0.00634 J	<0.000800	<0.000800	<0.000800	<0.000800	<0.000800	<0.000800	<0.00400	<0.000800	---	---	---	---
Arsenic	0.010	Not Applicable	0.01 (MCL)	mg/L	0.00201 J	0.000728 J	0.000766 J	0.00176 J	0.00176 J	0.00137 J	0.00128 J	0.00310 J	0.00150 J	---	---	---	---
Barium	2	Not Applicable	2 (MCL)	mg/L	0.0411	0.0462	0.0427	0.036	0.0335	0.0292	0.0346	0.0446	0.0308	---	---	---	---
Beryllium	0.004	Not Applicable	0.004 (MCL)	mg/L	<0.000500	<0.000100	<0.000100	<0.00250	<0.000100	<0.000100	<0.000100	<0.000500	<0.000100	---	---	---	---
Cadmium	0.005	Not Applicable	0.005 (MCL)	mg/L	<0.000500	<0.000100	<0.000100	0.000115 J	<0.000100	<0.000100	<0.000100	<0.000500	<0.000100	---	---	---	---
Chromium	0.1	Not Applicable	0.1 (MCL)	mg/L	U (0.00333)	0.000680 J	<0.00500	<0.000500	<0.000500	0.000731 J	<0.000500	<0.00250	U (0.000637)	---	---	---	---
Cobalt	None	Not Applicable	0.006 (ACL)	mg/L	0.00120 J	0.000648 J	<0.00100	0.000735 J	0.000439 J	0.000349 J	0.000333 J	0.00208 J	0.000696 J	---	---	---	---
Fluoride	4	Not Applicable	4 (MCL)	mg/L	1.02 J*	0.569	0.497	0.368	0.425	0.607	0.58	0.579	0.744	0.509	0.771	0.733	0.664
Lead	0.015	Not Applicable	0.015 (MCL)	mg/L	<0.000500	0.000333 J	<0.000100	0.000157 J	<0.000100	<0.000100	<0.000100	<0.000500	<0.000100	---	---	---	---
Lithium	None	Not Applicable	0.235 (UTL)	mg/L	0.0697 J	0.0462 J	0.0499 J	0.0395 J	0.0400 J	0.0637	0.07	0.0766 J	0.0609	---	0.0667	0.0656	0.0613
Mercury	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.000150	<0.000150	<0.000150	<0.000150	<0.000100	<0.000150	<0.000150	<0.000150	<0.000150	---	---	---	---
Molybdenum	None	Not Applicable	0.1 (ACL)	mg/L	<0.00500	0.00174 J	0.00160 J	<0.00500	0.00153 J	0.00186 J	0.00179 J	<0.00500	0.00171 J	---	0.00127 J	0.00128 J	<0.00100
Selenium	0.05	Not Applicable	0.05 (MCL)	mg/L	U (0.00158)	<0.000300	0.00103 J	<0.00150	<0.000300	<0.000300	<0.000300	<0.00150	<0.000300	---	---	---	---
Thallium	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.00400	<0.000800	<0.000800	<0.000800	<0.000800	<0.000800	<0.000800	<0.00400	<0.000800	---	---	---	---
Ra-226 + Ra-228 (combined)	5	Not Applicable	5 (MCL)	pCi/L	1.13 +/- 1.07 U	1.51 +/- 0.445	1.15 +/- 0.362	0.649 +/- 0.257	0.808 +/- 0.292	0.531 +/- 0.268	0.559 +/- 0.233	0.952 +/- 0.279	0.891 +/- 0.247	---	---	---	---
Other Parameters																	
Chemical Oxygen Demand (COD)	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<5.00	---	---	---	---
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	311	---	---	---	---
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<5.00	---	---	---	---
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	10.7	---	---	---	---
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate as N	10	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Potassium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	4.95	---	---	---	---
Sodium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	273	---	---	---	---
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	---	---	---	---	---	---	---	---	---	---	---	---	---
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																	
Temperature	None	Not Applicable	Not Applicable	ºC	16.83	14.77	15.53	18.89	16.83	21.67	---	19.85	24.46	19.6	29.34	---	25.21
pH	6.5 - 8.5	Not Applicable	Not Applicable	S.U.	7.88	7.17	7.2	7.18	7.22	7.27	---	7.19	7.22	7.4	6.92	---	7.22
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	1614	2010	2029	2216	2205	1925	---	1929	1680	2101	1822	---	1932
Dissolved Oxygen	None	Not Applicable	Not Applicable	mg/L	0.47	0.43	0.19	0.27	0.25	0.09	---	0.05	0.08	0.22	1.61	---	2.95
Oxidation-Reduction Potential	None	Not Applicable	Not Applicable	mV	-165.8	-141	-164.4	-68	-104	-196	---	107.4	57.6	-58.8	-20.8	---	-30.7
Turbidity	None	Not Applicable	Not Applicable	NTU	81.8	33.7	3.34	1.12	8.31	1.82	---	1.12	3.45	2.29	3.37	---	1.76

Notes:

1. MCL : Maximum Contaminant Level: Values obtained from EPA Primary/Secondary Drinking Water Standards.
   The MCL value for lead is the EPA's Action Level.
2. mg/L : milligrams per liter.
3. pCi/L : picoCuries per liter.
4. S.U. : Standard Units.
5. ºC : degrees Celsius.
6. µmhos/cm : micromhos per centimeter.
7. mV : millivolts.
8. NTU : Nephelometric Turbidity Unit.
9. < : Analyte not detected at the laboratory method detection limit (MDL).
10. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
11. Cells shaded in blue indicate results that are above the laboratory MDL.
12. The sulfate value for sample MW-25R collected June 9, 2017 was originally reported by the laboratory as 331 mg/L. The laboratory reprepared and analyzed the sample. The value for sulfate on this table is the result of the reanalysis.
13. --- : no analysis performed.
14. Data validation based on USEPA "National Functional Guidelines", OSWER 9355.0-132, EPA-540-R-014-002, Revision August 2014 for Organics and OSWER 9355.0-131, EPA-540-R-013-001, Revision August 2014 for Inorganics.
    U ( ) : The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
    UJ : The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
    J* : The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
    R : The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
15. New pumps were installed in MW-5S, MW-7S, MW-19S, and MW-25R in January 2017.
16. # : Data from Initial Assessment Monitoring determined to be invalid due to laboratory issues and are not to be used in statistical evaluation. Resampling was conducted in January 2019 (both filtered and unfiltered). Data from unfiltered analysis from January 2019 is appropriate for statistical evaluation.
17. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT B
GROUNDWATER SAMPLE DATA TO DATE FOR LANDFILL CCR UNIT
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	MCL or SMCL	Established Background (Det. Mon.)	Established GWPS (Ass. Mon.)	Sample ID:	MW-7S	MW-7S		MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	DUP 2	MW-7S	MW-7S		MW-7S	DUP 3
				Sample Date:	4-Oct-18	10-Jan-19		23-Apr-19	1-Oct-19	17-Jun-20	9-Oct-20	30-Mar-21		15-Oct-21	31-Mar-22	Jun-22	5-Oct-22	
Detection Monitoring Parameters				***Units***	INITIAL ASSESSMENT MON.	INITIAL ASSESSMENT MON. (RESAMPLE) UNFILTERED	FILTERED	FIRST 2019 ASSESSMENT MON.	SECOND 2019 ASSESSMENT MON.	FIRST 2020 ASSESSMENT MON.	SECOND 2020 ASSESSMENT MON.	FIRST 2021 ASSESSMENT MON.		SECOND 2021 ASSESSMENT MON.	FIRST 2022 ASSESSMENT MON.	FIRST 2022 ASSESSMENT MON. (RESAMPLE)	SECOND 2022 ASSESSMENT MON.	
Boron	None	1.896	Not Applicable	mg/L	2.7 #	0.839	1.12	0.848	1.99	1.33	2.29	0.677	0.681	2.18	0.646	---	2.7	3.07
Calcium	None	670.30	Not Applicable	mg/L	76 #	277	293	271	81.1	160	90.2	254	219	97.1	302	---	100	111
Chloride	250	18.51	Not Applicable	mg/L	16.1 #	18.7	19.7	19.7	16.3	18	16.9	20.5	19.4	16.8	19.9	---	16.9	16.7
Fluoride	4	0.6359	Not Applicable	mg/L	0.764 #	0.422	0.35	0.376	0.729	0.479	0.713	0.444	0.415	0.746	0.515	---	0.711	0.824
pH (laboratory)	6.5 - 8.5	6.485 - 8.018	Not Applicable	S.U.	8 #	7.34	---	7.82	7.39	7.55	7.79	7.32	7.53	7.84	7.88	---	7.81	8.01
Sulfate	250	1,281	Not Applicable	mg/L	1600 #	1200	1110	1040	633	970	759	1200	1190	690	1190	---	687	687
Total Dissolved Solids	500	1,863	Not Applicable	mg/L	1230 #	1670	1890	1890	1270	1680	1340	2060	2000	1290	1920	---	1350	1260
Assessment Monitoring Parameters																		
Antimony	0.006	Not Applicable	0.006 (MCL)	mg/L	<0.0008 #	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	---	<0.000400	<0.000400
Arsenic	0.010	Not Applicable	0.01 (MCL)	mg/L	<0.004 #	0.000413 J	<0.000400	0.00116 J	0.000412 J	0.000650 J	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	---	<0.000400	<0.000400
Barium	2	Not Applicable	2 (MCL)	mg/L	0.021 #	0.0371	0.0387	0.0372	0.0139	0.0244	0.0142	0.0295	0.0302	0.0154	0.0336	---	0.0148	0.0167
Beryllium	0.004	Not Applicable	0.004 (MCL)	mg/L	<0.001 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200	<0.000200
Cadmium	0.005	Not Applicable	0.005 (MCL)	mg/L	<0.0001 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200	<0.000200
Chromium	0.1	Not Applicable	0.1 (MCL)	mg/L	<0.005 #	<0.000400	<0.000400	<0.000400	0.000994 J	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	0.000494 J	---	0.000669 J	0.00143 J
Cobalt	None	Not Applicable	0.006 (ACL)	mg/L	0.000222 J #	0.000270 J	0.000304 J	0.00153 J	<0.000200	0.000838 J	<0.000200	<0.000200	<0.000200	0.000259 J	0.00110 J	---	<0.000200	0.000215 J
Fluoride	4	Not Applicable	4 (MCL)	mg/L	0.764 #	0.422	0.35	0.376	0.729	0.479	0.713	0.444	0.415	0.746	0.515	---	0.711	0.824
Lead	0.015	Not Applicable	0.015 (MCL)	mg/L	<0.0001 #	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	---	<0.000600	<0.000600
Lithium	None	Not Applicable	0.235 (UTL)	mg/L	0.0714 J #	0.0558	0.0606	0.0593	0.0608	0.0681	0.065	0.0472	0.0468	0.0645	0.0533	---	0.0685	0.0778
Mercury	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.0001 #	<0.0000300	<0.0000300	<0.0000300	<0.0000300	0.0000350 J	<0.0000300	0.000104 J	0.0000320 J	<0.0000300	<0.0000300	---	<0.0000300	<0.0000300
Molybdenum	None	Not Applicable	0.1 (ACL)	mg/L	<0.01 #	0.00105 J	0.00107 J	0.000952 J	0.000798 J	0.00105 J	0.00106 J	0.000755 J	0.000763 J	0.00115 J	0.000973 J	---	0.00103 J	0.00134 J
Selenium	0.05	Not Applicable	0.05 (MCL)	mg/L	<0.0003 #	<0.0011	<0.0011	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	---	<0.00110	<0.00110
Thallium	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.0008 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200	<0.000200
Ra-226 + Ra-228 (combined)	5	Not Applicable	5 (MCL)	pCi/L	2.07 +/- 0.453 #	1.34	---	0.9	<0.71	1.05	1.2	1.73	1.92	1.95	1.11	---	1.38	2.72
Other Parameters																		
Chemical Oxygen Demand (COD)	None	Not Applicable	Not Applicable	mg/L	<5 #	5.0 J	---	<5.00	<5.00	---	8.00 J	<5.00	<5.00	7.00 J	<5.00	---	<5.00	16
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	264	315	180	177	343	205	---	32.6	297
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	<5	---	---	---	<5	<5	<5	<5	<5.00	<5	---	<5.00	7.48
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	222	---	---	---	264	315	180	177	343	205	---	32.6	289
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	<5	---	---	---	<5	<5	<5	<5	<5.00	<5	---	<5.00	<5.00
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.278	0.111 J	0.0145 J	0.0156 J	0.310	<0.0120	---	0.158 J	0.186 J
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.034(J)	0.235	0.0154 J	0.0234 J	0.134 J	<0.0120	---	0.113 J	0.0883 J
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.306	0.216	<0.02	<0.02	0.207	<0.02	---	0.127	0.107
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<0.02	<0.02	<0.0200 H	<0.02	---	0.114	<0.0200
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<0.02	<0.02	0.103	<0.02	---	0.0310 J	0.079
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<0.02	0.0234 J	0.134	<0.02	---	<0.02	0.0883
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	19	18.7	---	---	17.1	12	16.9	17.4	12.2	20	---	12.2	13.8
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.000987(J)	0.00103 J	0.000846 J	0.000941 J	0.00121 J	0.000830 J	---	0.00112 J	0.00108 J
Nitrate as N	10	Not Applicable	Not Applicable	mg/L	0.118 #	0.557	0.644	<0.0300	<0.0300	<0.0300	<0.0300	<0.0600	<0.0600	0.0940 J	0.0613 J	---	0.155	0.147
Potassium	None	Not Applicable	Not Applicable	mg/L	---	4.67	4.79	---	---	5.33	5.1	4.06	4.18	5.14	4.56	---	5.34	6
Sodium	None	Not Applicable	Not Applicable	mg/L	---	274	294	---	---	313	272	230	197	261	272	---	313	352
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	1610 #	2240	---	---	---	---	2110	2380	2380	1860	2,530	---	2,000	2050
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<1	1.48	<1	<1	<1.00	<1	---	<1	<1
Field Parameters																		
Temperature	None	Not Applicable	Not Applicable	ºC	25	12.8	---	17.92	25.27	21.95	23.1	16.8	---	22.5	14.2	---	26.8	---
pH	6.5 - 8.5	Not Applicable	Not Applicable	S.U.	7.35	7.08	---	7.42	7.53	7.37	7.52	7.24	---	7.47	7.32	---	7.37	---
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	1887	2180	---	2326	1944	2097	1945	2377	---	1,973	2,385	---	2,015	---
Dissolved Oxygen	None	Not Applicable	Not Applicable	mg/L	0.45	0.23	---	0.84	0.51	0.49	0.33	0.31	---	0.30	0.38	---	0.39	---
Oxidation-Reduction Potential	None	Not Applicable	Not Applicable	mV	-129.1	-6.3	---	-61.6	-133.8	-67.6	-90.1	83.3	---	-107.8	-30.3	---	-179.9	---
Turbidity	None	Not Applicable	Not Applicable	NTU	8.01	0.67	0.64	0.71	0.88	2.49	0.85	5.81	---	3.15	2.42	---	2.91	---

Notes:

1. MCL : Maximum Contaminant Level: Values obtained from EPA Primary/Secondary Drinking Water Standards.
   The MCL value for lead is the EPA's Action Level.
2. mg/L : milligrams per liter.
3. pCi/L : picoCuries per liter.
4. S.U. : Standard Units.
5. ºC : degrees Celsius.
6. µmhos/cm : micromhos per centimeter.
7. mV : millivolts.
8. NTU : Nephelometric Turbidity Unit.
9. < : Analyte not detected at the laboratory method detection limit (MDL).
10. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
11. Cells shaded in blue indicate results that are above the laboratory MDL.
12. The sulfate value for sample MW-25R collected June 9, 2017 was originally reported by the laboratory as 331 mg/L. The laboratory reprepared and analyzed the sample. The value for sulfate on this table is the result of the reanalysis.
13. --- : no analysis performed.
14. Data validation based on USEPA "National Functional Guidelines", OSWER 9355.0-132, EPA-540-R-014-002, Revision August 2014 for Organics and OSWER 9355.0-131, EPA-540-R-013-001, Revision August 2014 for Inorganics.
    U ( ) : The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
    UJ : The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
    J* : The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
    R : The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
15. New pumps were installed in MW-5S, MW-7S, MW-19S, and MW-25R in January 2017.
16. # : Data from Initial Assessment Monitoring determined to be invalid due to laboratory issues and are not to be used in statistical evaluation. Resampling was conducted in January 2019 (both filtered and unfiltered). Data from unfiltered analysis from January 2019 is appropriate for statistical evaluation.
17. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT B
GROUNDWATER SAMPLE DATA TO DATE FOR LANDFILL CCR UNIT
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	MCL or SMCL	Established Background (Det. Mon.)	Established GWPS (Ass. Mon.)	Sample ID: / Sample Date:	MW-13 25-May-16	DUP-2 25-May-16	MW-13 26-Jul-16	MW-13 27-Sep-16	MW-13 29-Nov-16	MW-13 30-Jan-17	MW-13 30-Mar-17	MW-13 6-Jun-17	MW-13 4-Aug-17	MW-13 21-May-18	MW-13 (Shallow) 1-Aug-18	MW-13 (Deep) 9-Aug-18
					BACKGROUND 1		BACKGROUND 2	BACKGROUND 3	BACKGROUND 4	BACKGROUND 5	BACKGROUND 6	BACKGROUND 7	BACKGROUND 8	DETECTION MON. #1	EVALUATION SAMPLE	VERIFICATION SAMPLE
Detection Monitoring Parameters				*Units*												
Boron	None	Background Well (Not Applicable)	Not Applicable	mg/L	1.38	1.4	1.1	1.36	1.41	1.43	2	1.34	1.24	1.3	1.41	3.86
Calcium	None		Not Applicable	mg/L	341	362	440	302	306	485	343	421	313	251	249	284
Chloride	250		Not Applicable	mg/L	13.7	13.5	13.1	14.0 J	12.5	12.6	12.2	13	12.1 J*	13.4	13.6	33.2
Fluoride	4		Not Applicable	mg/L	0.192	0.183	0.389	0.674	0.324	0.395	0.181	0.329	0.248 J*	0.281	0.364	0.743
pH (laboratory)	6.5 - 8.5		Not Applicable	S.U.	7.16	7.28	7.84	7.7	7.3	7.1	7	6.9	6.9	7	7.5	7.7
Sulfate	250		Not Applicable	mg/L	1570	1,680 J*	1450	1360	1340	1320	1360	1320	1,350 J*	1320	1250	1440
Total Dissolved Solids	500		Not Applicable	mg/L	2220	2190	2340	2,380 J	2230	2230	2250	2410	2370	2400	2130	2560
Assessment Monitoring Parameters																
Antimony	0.006	Not Applicable	Background Well (Not Applicable)	mg/L	<0.000500	<0.000500	<0.000500	<0.000800	<0.000800	<0.000800	<0.00400	<0.000800	<0.000800	---	---	---
Arsenic	0.010	Not Applicable		mg/L	0.00394	0.00377	0.00244	0.00177 J	0.00180 J	0.00170 J	<0.00200	<0.000400	0.0057	---	---	---
Barium	2	Not Applicable		mg/L	0.0267	0.0263	0.0259	0.0198	0.0184	0.0182	0.033	0.0168	0.0177	---	---	---
Beryllium	0.004	Not Applicable		mg/L	<0.00100	<0.00100	<0.00100	<0.000100	<0.000100	<0.000100	<0.000500	<0.000100	<0.000100	---	---	---
Cadmium	0.005	Not Applicable		mg/L	<0.000400	<0.000400	<0.000400	<0.000100	<0.000100	<0.000100	<0.000500	<0.000100	<0.000100	---	---	---
Chromium	0.1	Not Applicable		mg/L	<0.000500	0.000637 J	<0.000500	<0.000500	0.00109 J	<0.000500	<0.00250	<0.000500	<0.000500	---	---	---
Cobalt	None	Not Applicable		mg/L	<0.000500	0.000507 J	<0.000500	0.000376 J	0.000366 J	0.000329 J	<0.000500	0.000519 J	0.000275 J	---	---	---
Fluoride	4	Not Applicable		mg/L	0.192	0.183	0.389	0.674	0.324	0.395	0.181	0.329	0.248 J*	0.281	0.364	0.743
Lead	0.015	Not Applicable		mg/L	<0.000200	<0.000200	<0.000200	<0.000100	<0.000100	<0.000100	<0.000500	<0.000100	<0.000100	---	---	---
Lithium	None	Not Applicable		mg/L	0.176	0.179	0.184	0.156	0.156	0.173	0.0449 J	0.157	0.164	---	0.14	0.115
Mercury	0.002	Not Applicable		mg/L	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	---	---	---
Molybdenum	None	Not Applicable		mg/L	0.0097	0.0092	0.00557	0.029	0.00444	0.00393	0.00345	0.00316	0.00286	---	0.00211	0.0022
Selenium	0.05	Not Applicable		mg/L	<0.000600	<0.000600	<0.000600	<0.000300	0.000512 J	<0.000300	<0.00150	0.00402	U (0.00192)	---	---	---
Thallium	0.002	Not Applicable		mg/L	<0.000500	<0.000500	<0.000500	<0.000800	<0.000800	<0.000800	<0.00400	<0.000800	<0.000800	---	---	---
Ra-226 + Ra-228 (combined)	5	Not Applicable		pCi/L	1.96 +/- 0.373	1.57 +/- 0.321	1.50 +/- 0.327	1.43 +/- 0.352	1.75 +/- 0.486	1.41 +/- 0.357	1.73 +/- 0.350	1.75 +/- 0.389	1.51 +/- 0.320	---	---	---
Other Parameters																
Chemical Oxygen Demand (COD)	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<5.00	---	---	---
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	307	---	---	---
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<5.00	---	---	---
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	26.4	---	---	---
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate as N	10	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Potassium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	8.32	---	---	---
Sodium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	349	---	---	---
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	---	---	---	---	---	---	---	---	---	---	---	---
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																
Temperature	None	Not Applicable	Not Applicable	ºC	21.68	---	21.6	21.3	20.26	20.49	19.38	22.73	22.75	21.37	27.06	25.52
pH	6.5 - 8.5	Not Applicable	Not Applicable	S.U.	7.08	---	7.23	7.02	6.99	6.96	7.05	6.97	6.94	7.07	6.72	6.49
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	2507	---	2939	2622	3002	2967	3006	2990	2920	2887	3010	3213
Dissolved Oxygen	None	Not Applicable	Not Applicable	mg/L	0.41	---	0.28	0.09	0.35	0.33	0.3	0.18	0.09	1.25	2.22	1.37
Oxidation-Reduction Potential	None	Not Applicable	Not Applicable	mV	0.6	---	-103.3	-136.8	-178.8	-179.1	-93.3	-10.6	-68.7	-48.9	49.1	187.6
Turbidity	None	Not Applicable	Not Applicable	NTU	4.12	---	1.91	0.26	1.14	0.5	1.38	1.93	0.87	0.28	0.02	0.02

Notes:

1. MCL : Maximum Contaminant Level: Values obtained from EPA Primary/Secondary Drinking Water Standards.
   The MCL value for lead is the EPA's Action Level.
2. mg/L : milligrams per liter.
3. pCi/L : picoCuries per liter.
4. S.U. : Standard Units.
5. ºC : degrees Celsius.
6. µmhos/cm : micromhos per centimeter.
7. mV : millivolts.
8. NTU : Nephelometric Turbidity Unit.
9. < : Analyte not detected at the laboratory method detection limit (MDL).
10. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
11. Cells shaded in blue indicate results that are above the laboratory MDL.
12. The sulfate value for sample MW-25R collected June 9, 2017 was originally reported by the laboratory as 331 mg/L. The laboratory reprepared and analyzed the sample. The value for sulfate on this table is the result of the reanalysis.
13. --- : no analysis performed.
14. Data validation based on USEPA "National Functional Guidelines", OSWER 9355.0-132, EPA-540-R-014-002, Revision August 2014 for Organics and OSWER 9355.0-131, EPA-540-R-013-001, Revision August 2014 for Inorganics.
    U ( ) : The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
    UJ : The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
    J* : The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
    R : The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
15. New pumps were installed in MW-5S, MW-7S, MW-19S, and MW-25R in January 2017.
16. # : Data from Initial Assessment Monitoring determined to be invalid due to laboratory issues and are not to be used in statistical evaluation. Resampling was conducted in January 2019 (both filtered and unfiltered). Data from unfiltered analysis from January 2019 is appropriate for statistical evaluation.
17. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT B
GROUNDWATER SAMPLE DATA TO DATE FOR LANDFILL CCR UNIT
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	MCL or SMCL	Established Background (Det. Mon.)	Established GWPS (Ass. Mon.)	Sample ID:	MW-13	MW-13		DUP 2		MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13		MW-13
				Sample Date:	4-Oct-18	11-Jan-19				25-Apr-19	3-Oct-19	17-Jun-20	14-Oct-20	31-Mar-21	15-Oct-21	1-Apr-22	Jun-22	Oct-22
Detection Monitoring Parameters				***Units***	INITIAL ASSESSMENT MON.	INITIAL ASSESSMENT MON. (RESAMPLE) UNFILTERED	FILTERED	FILTERED	UNFILTERED	FIRST 2019 ASSESSMENT MON.	SECOND 2019 ASSESSMENT MON.	FIRST 2020 ASSESSMENT MON.	SECOND 2020 ASSESSMENT MON.	FIRST 2021 ASSESSMENT MON.	SECOND 2021 ASSESSMENT MON.	FIRST 2022 ASSESSMENT MON.	FIRST 2022 ASSESSMENT MON. (RESAMPLE)	SECOND 2022 ASSESSMENT MON.
Boron	None	Background Well (Not Applicable)	Not Applicable	mg/L	2.01 #	2.14	1.67	1.76	1.72	3.07	2.01	1.39	1.48	1.66	1.43	3.00	---	3.08
Calcium	None		Not Applicable	mg/L	299 #	270	360	334	348	130	182	243	242	284	237	116	---	135
Chloride	250		Not Applicable	mg/L	12.8 #	15.1	13.7	13.8	13.1	28.2	17.3	13.8	13.9	13.8	14.8	30.0	---	14.4
Fluoride	4		Not Applicable	mg/L	0.285 #	0.342	0.99	0.31	0.444	0.652	0.422	0.231	0.257	0.344	0.294	0.453 J	---	0.263
pH (laboratory)	6.5 - 8.5		Not Applicable	S.U.	7.6 #	7.16	---	7.35	---	7.95	6.75	6.71	7.55	7.32	7.57	7.91	---	7.33
Sulfate	250		Not Applicable	mg/L	1400 #	1450	1420	1450	1440	1450	1380	1390	1480	1470	1570	1,510	---	1380
Total Dissolved Solids	500		Not Applicable	mg/L	2350 #	2350	2220	2270	2260	2590	2350	2450	2360	2320	2360	2,520	---	2460
Assessment Monitoring Parameters																		
Antimony	0.006	Not Applicable	Background Well (Not Applicable)	mg/L	<00008 #	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	---	<0.000400
Arsenic	0.010	Not Applicable		mg/L	<0.004 #	<0.000400	<0.000400	<0.000400	0.000412 J	0.000979 J	0.000401 J	<0.000400	<0.000400	<0.000400	<0.000400	0.000569 J	---	0.000423 J
Barium	2	Not Applicable		mg/L	0.0196 J #	0.014	0.0164	0.0152	0.015	0.0146	0.0114	0.0116	0.0107	0.0114	0.0112	0.0104	---	0.01
Beryllium	0.004	Not Applicable		mg/L	<0.001 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Cadmium	0.005	Not Applicable		mg/L	<0.0001 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Chromium	0.1	Not Applicable		mg/L	<0.005 #	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	---	<0.000400
Cobalt	None	Not Applicable		mg/L	<0.0001 #	<0.000200	0.000229 J	<0.000200	<0.000200	0.000265 J	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	0.000435 J	---	<0.000200
Fluoride	4	Not Applicable		mg/L	0.285 #	0.342	0.99	0.31	0.444	0.652	0.422	0.231	0.257	0.344	0.294	0.453 J	---	0.263
Lead	0.015	Not Applicable		mg/L	<0.0001 #	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	---	<0.000600
Lithium	None	Not Applicable		mg/L	0.174 J #	0.17	0.194	0.181	0.176	0.131	0.139	0.156	0.146	0.166	0.163	0.120	---	0.131
Mercury	0.002	Not Applicable		mg/L	<0.00015 #	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	0.0000990 J	0.0000490 J	<0.0000300	---	<0.0000300
Molybdenum	None	Not Applicable		mg/L	<0.01 #	0.00155 J	0.00178 J	0.00149 J	0.00176 J	0.00276 J	0.00210 J	0.000934 J	0.000865 J	0.000959 J	0.000917 J	0.00117 J	---	0.00101 J
Selenium	0.05	Not Applicable		mg/L	0.000429 J #	<0.0011	<0.0011	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	---	<0.00110
Thallium	0.002	Not Applicable		mg/L	<0.0008 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Ra-226 + Ra-228 (combined)	5	Not Applicable		pCi/L	1.46 +/- 0.346 #	2.12	---	1.14	---	1.65	1.81	2.09	2.67	2.47	1.75	1.46	---	3.01
Other Parameters																		
Chemical Oxygen Demand (COD)	None	Not Applicable	Not Applicable	mg/L	<5 #	<5	---	<5	---	<5.00	6.00 J	---	<5.00	<5.00	5.00 J	<5.00	---	13.0 J
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	<5	---	<5	---	---	---	---	---	---	---	---	---	---
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	354	---	343	---	---	---	---	---	---	---	---	---	---
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	<5	---	<5	---	---	---	---	---	---	---	---	---	---
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	27	30.7	30.4	29.6	---	---	---	---	---	---	---	---	---
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate as N	10	Not Applicable	Not Applicable	mg/L	0.061 J #	<0.03	<0.03	<0.03	<0.03	<0.150	0.191	<0.0300	<0.0600	<0.0600	0.0613 J	0.304 J	---	0.297
Potassium	None	Not Applicable	Not Applicable	mg/L	---	8.43	8.61	8.43	8.64	---	---	---	---	---	---	---	---	---
Sodium	None	Not Applicable	Not Applicable	mg/L	---	557	416	447	418	---	---	---	---	---	---	---	---	---
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	2570 #	3090	---	2960	---	---	---	---	3280	2940	3050	3,840	---	3250
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																		
Temperature	None	Not Applicable	Not Applicable	ºC	25.7	12.4	---	---	---	20.41	27	21.69	21.8	16.9	21.4	17.3	---	24.8
pH	6.5 - 8.5	Not Applicable	Not Applicable	S.U.	7.41	7.39	---	---	---	7.8	7.63	7.48	7.54	7.49	7.56	7.55	---	7.49
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	3728	3569	---	---	---	3688	3751	3474	3576	3616	3,688	3,658	---	3616
Dissolved Oxygen	None	Not Applicable	Not Applicable	mg/L	0.41	0.66	---	---	---	1.68	2.61	1.18	0.39	0.49	0.44	0.33	---	0.8
Oxidation-Reduction Potential	None	Not Applicable	Not Applicable	mV	30.1	-8.8	---	---	---	-119.2	-95.1	-41.6	156.8	76.4	-435.2	22.4	---	-126.4
Turbidity	None	Not Applicable	Not Applicable	NTU	5.63	2.27	0.76	---	---	4.66	1.28	4.95	3.21	3.76	8.30	3.27	---	2.42

Notes:

1. MCL : Maximum Contaminant Level: Values obtained from EPA Primary/Secondary Drinking Water Standards.
   The MCL value for lead is the EPA's Action Level.
2. mg/L : milligrams per liter.
3. pCi/L : picoCuries per liter.
4. S.U. : Standard Units.
5. ºC : degrees Celsius.
6. µmhos/cm : micromhos per centimeter.
7. mV : millivolts.
8. NTU : Nephelometric Turbidity Unit.
9. < : Analyte not detected at the laboratory method detection limit (MDL).
10. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
11. Cells shaded in blue indicate results that are above the laboratory MDL.
12. The sulfate value for sample MW-25R collected June 9, 2017 was originally reported by the laboratory as 331 mg/L. The laboratory reprepared and analyzed the sample. The value for sulfate on this table is the result of the reanalysis.
13. --- : no analysis performed.
14. Data validation based on USEPA "National Functional Guidelines", OSWER 9355.0-132, EPA-540-R-014-002, Revision August 2014 for Organics and OSWER 9355.0-131, EPA-540-R-013-001, Revision August 2014 for Inorganics.
    U ( ) : The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
    UJ : The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
    J* : The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
    R : The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
15. New pumps were installed in MW-5S, MW-7S, MW-19S, and MW-25R in January 2017.
16. # : Data from Initial Assessment Monitoring determined to be invalid due to laboratory issues and are not to be used in statistical evaluation. Resampling was conducted in January 2019 (both filtered and unfiltered). Data from unfiltered analysis from January 2019 is appropriate for statistical evaluation.
17. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT B
GROUNDWATER SAMPLE DATA TO DATE FOR LANDFILL CCR UNIT
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	MCL or SMCL	Established Background (Det. Mon.)	Established GWPS (Ass. Mon.)	Sample ID:	MW-14A	MW-14A	MW-14A	MW-14A	MW-14A	DUP-2	MW-14A	MW-14A	MW-14A	MW-14A	MW-14A (Shallow)	MW-14A (Deep)	DUP1 (Deep)
				Sample Date:	25-May-16	23-Aug-16	28-Sep-16	30-Nov-16	31-Jan-17	31-Jan-17	30-Mar-17	2-Jun-17	9-Aug-17	17-May-18	1-Aug-18	9-Aug-18	9-Aug-18
Detection Monitoring Parameters				***Units***	BACKGROUND 1	BACKGROUND 2	BACKGROUND 3	BACKGROUND 4	BACKGROUND 5		BACKGROUND 6	BACKGROUND 7	BACKGROUND 8	DETECTION MON. #1	EVALUATION SAMPLE	VERIFICATION SAMPLE	
Boron	None	Background Well (Not Applicable)	Not Applicable	mg/L	0.92	0.92	0.894	1.02	0.984	1.04	1.01	1.03	0.764	1.14	0.925	1.8	1.53
Calcium	None		Not Applicable	mg/L	500	380	327	328	544	503	451	530	672	313	341	746	358
Chloride	250		Not Applicable	mg/L	17.7	17.1	15.5	15.2	15.7	15.8	16.3	14.8	13.8	15.3	15	16	14.7
Fluoride	4		Not Applicable	mg/L	0.17	0.472	0.402	0.384	0.372	0.385	0.228	0.232	0.312	0.292	0.333	0.296	0.253
pH (laboratory)	6.5 - 8.5		Not Applicable	S.U.	7.12	7.7	7.6	7.6	7.1	7.1	7.1	7	6.9	7.4	7.3	7.1	7.2
Sulfate	250		Not Applicable	mg/L	2020	1670	1730	1600	1590	1610	1710	1440	1420	1790	1580	1600	1510
Total Dissolved Solids	500		Not Applicable	mg/L	2680	2650	2530	2670	2540	2570	2650	2630	2680	2700	2700	2730	2700
Assessment Monitoring Parameters																	
Antimony	0.006	Not Applicable	Background Well (Not Applicable)	mg/L	<0.000500	<0.000800	<0.000800	<0.00800	<0.000800	<0.000800	<0.00400	<0.000800	<0.000800	---	---	---	---
Arsenic	0.010	Not Applicable		mg/L	0.00363	0.000714 J	0.00171 J	<0.00400	0.00153 J	0.00173 J	<0.00200	0.00150 J	0.00306	---	---	---	---
Barium	2	Not Applicable		mg/L	0.0239	0.018	0.019	0.0156 J	0.0177	0.0179	0.0329	0.0179	0.182	---	---	---	---
Beryllium	0.004	Not Applicable		mg/L	<0.00100	<0.000100	<0.000100	<0.00100	<0.000100	<0.000100	<0.000500	<0.000100	<0.00100	---	---	---	---
Cadmium	0.005	Not Applicable		mg/L	<0.000400	<0.000100	<0.000100	<0.00100	<0.000100	<0.000100	<0.000500	<0.000100	<0.00100	---	---	---	---
Chromium	0.1	Not Applicable		mg/L	<0.000500	<0.000500	<0.000500	<0.00500	<0.000500	<0.000500	<0.00250	<0.000500	<0.000500	---	---	---	---
Cobalt	None	Not Applicable		mg/L	0.000730 J	0.000258 J	0.000708 J	<0.00100	0.000334 J	0.000342 J	<0.000500	<0.000100	0.000350 J	---	---	---	---
Fluoride	4	Not Applicable		mg/L	0.17	0.472	0.402	0.384	0.372	0.385	0.228	0.232	0.312	0.292	0.333	0.296	0.253
Lead	0.015	Not Applicable		mg/L	<0.000200	<0.000100	<0.000100	<0.00100	<0.000100	<0.000100	<0.000500	<0.000100	<0.000100	---	---	---	---
Lithium	None	Not Applicable		mg/L	0.167	0.147	0.147	0.175 J	0.16	0.164	0.235 J	0.147	0.16	---	0.149	0.328 J	0.134
Mercury	0.002	Not Applicable		mg/L	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	---	---	---	---
Molybdenum	None	Not Applicable		mg/L	0.00477	0.00237	0.00524 J	<0.0100	0.00253	0.00238	<0.00500	0.00246	0.00223	---	<0.00100	<0.0100	0.00144 J
Selenium	0.05	Not Applicable		mg/L	<0.000600	0.000342 J	<0.000300	<0.00300	<0.000300	<0.000300	<0.00150	<0.000300	<0.000300	---	---	---	---
Thallium	0.002	Not Applicable		mg/L	<0.000500	<0.000800	<0.000800	<0.00800	<0.000800	<0.000800	<0.00400	<0.000800	<0.000800	---	---	---	---
Ra-226 + Ra-228 (combined)	5	Not Applicable		pCi/L	1.60 +/- 0.364	1.62 +/- 0.381	1.90 +/- 0.394	2.02 +/- 0.498	1.39 +/- 0.366	1.38 +/- 0.385	1.73 +/- 0.346	1.49 +/- 0.351	1.51 +/- 0.326	---	---	---	---
Other Parameters																	
Chemical Oxygen Demand (COD)	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<5.00	---	---	---	---
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	280	---	---	---	---
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<5.00	---	---	---	---
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	24.4	---	---	---	---
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate as N	10	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Potassium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	7.88	---	---	---	---
Sodium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	518	---	---	---	---
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	---	---	---	---	---	---	---	---	---	---	---	---	---
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																	
Temperature	None	Not Applicable	Not Applicable	ºC	20.93	22.4	21.96	17.51	17.76	---	18.84	19.83	21.41	22.9	25.6	21.33	---
pH	6.5 - 8.5	Not Applicable	Not Applicable	S.U.	7.01	7.13	7.01	6.95	6.97	---	7.08	6.88	6.75	7.1	6.82	6.47	---
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	2781	3345	3365	3434	3350	---	3390	3201	3186	3301	3415	3410	---
Dissolved Oxygen	None	Not Applicable	Not Applicable	mg/L	0.34	0.39	0.06	0.25	0.68	---	0.26	0.34	0.1	0.24	252	1.65	---
Oxidation-Reduction Potential	None	Not Applicable	Not Applicable	mV	127.6	-26.6	-94.3	-219.1	-88.7	---	-77.1	-30.1	97.7	-48.5	0.2	68.3	---
Turbidity	None	Not Applicable	Not Applicable	NTU	6.74	0.79	0.27	0.68	0.26	---	0.16	0.4	0.71	0.37	1.53	0.02	---

Notes:

1. MCL : Maximum Contaminant Level: Values obtained from EPA Primary/Secondary Drinking Water Standards.
   The MCL value for lead is the EPA's Action Level.
2. mg/L : milligrams per liter.
3. pCi/L : picoCuries per liter.
4. S.U. : Standard Units.
5. ºC : degrees Celsius.
6. µmhos/cm : micromhos per centimeter.
7. mV : millivolts.
8. NTU : Nephelometric Turbidity Unit.
9. < : Analyte not detected at the laboratory method detection limit (MDL).
10. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
11. Cells shaded in blue indicate results that are above the laboratory MDL.
12. The sulfate value for sample MW-25R collected June 9, 2017 was originally reported by the laboratory as 331 mg/L. The laboratory reprepared and analyzed the sample. The value for sulfate on this table is the result of the reanalysis.
13. --- : no analysis performed.
14. Data validation based on USEPA "National Functional Guidelines", OSWER 9355.0-132, EPA-540-R-014-002, Revision August 2014 for Organics and OSWER 9355.0-131, EPA-540-R-013-001, Revision August 2014 for Inorganics.
    U ( ) : The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
    UJ : The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
    J* : The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
    R : The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
15. New pumps were installed in MW-5S, MW-7S, MW-19S, and MW-25R in January 2017.
16. # : Data from Initial Assessment Monitoring determined to be invalid due to laboratory issues and are not to be used in statistical evaluation. Resampling was conducted in January 2019 (both filtered and unfiltered). Data from unfiltered analysis from January 2019 is appropriate for statistical evaluation.
17. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT B
GROUNDWATER SAMPLE DATA TO DATE FOR LANDFILL CCR UNIT
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	MCL or SMCL	Established Background (Det. Mon.)	Established GWPS (Ass. Mon.)	Sample ID:	MW-14A	MW-14A		MW-14A	MW-14A	MW-14A	MW-14A	MW-14A	MW-14A	MW-14		MW-14A
				Sample Date:	4-Oct-18	11-Jan-19		24-Apr-19	2-Oct-19	17-Jun-20	8-Oct-20	31-Mar-21	13-Oct-21	30-Mar-22	Jun-22	Oct-22
Detection Monitoring Parameters				*Units*	INITIAL ASSESSMENT MON.	INITIAL ASSESSMENT MON. (RESAMPLE) UNFILTERED	FILTERED	FIRST 2019 ASSESSMENT MON.	SECOND 2019 ASSESSMENT MON.	FIRST 2020 ASSESSMENT MON.	SECOND 2020 ASSESSMENT MON.	FIRST 2021 ASSESSMENT MON.	SECOND 2021 ASSESSMENT MON.	FIRST 2022 ASSESSMENT MON.	FIRST 2022 ASSESSMENT MON. (RESAMPLE)	SECOND 2022 ASSESSMENT MON.
Boron	None	Background Well (Not Applicable)	Not Applicable	mg/L	1.18 #	1.42	1.16	1.23	0.98	0.907	0.882	0.839	0.857	0.918	---	1.01
Calcium	None		Not Applicable	mg/L	319 #	402	388	314	306	280	278	298	263	330	---	313
Chloride	250		Not Applicable	mg/L	14.2 #	14	14.8	13.5	14.2	13.3	14.9	14.3	12.8	13.8	---	12.5
Fluoride	4		Not Applicable	mg/L	0.281 #	0.269	0.375	0.377 J	0.286	0.23	0.254 J	0.284	0.221	0.406 J	---	0.324
pH (laboratory)	6.5 - 8.5		Not Applicable	S.U.	7.6 #	7.28	---	7.61	7.18	7.44	7.41	7.7	6.74	7.99	---	7.06
Sulfate	250		Not Applicable	mg/L	1650 #	1660	1630	1540	1580	1650	1770	1680	1690	1,610	---	1600
Total Dissolved Solids	500		Not Applicable	mg/L	2710 #	2590	2580	2680	2750	2780	2630	2680	2630	2,690	---	2580
Assessment Monitoring Parameters																
Antimony	0.006	Not Applicable	Background Well (Not Applicable)	mg/L	<0.0008 #	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	---	<0.000400
Arsenic	0.010	Not Applicable		mg/L	<0.004 #	<0.000400	<0.000400	<0.000400	<0.000400	<0.00040	<0.000400	<0.000400	<0.000400	<0.000400	---	<0.000400
Barium	2	Not Applicable		mg/L	0.0232 #	0.017	0.0173	0.0147	0.0118	0.0132	0.0114	0.0117	0.0121	0.0120	---	0.0103
Beryllium	0.004	Not Applicable		mg/L	<0.001 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Cadmium	0.005	Not Applicable		mg/L	<0.0001 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Chromium	0.1	Not Applicable		mg/L	<0.005 #	<0.000400	<0.000400	<0.000400	0.00110 J	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	---	0.000465 J
Cobalt	None	Not Applicable		mg/L	0.000297 J #	0.000348 J	0.000324 J	0.000425 J	<0.000200	<0.000200	<0.000200	<0.000200	0.000257 J	0.00120 J	---	<0.000200
Fluoride	4	Not Applicable		mg/L	0.281 #	0.269	0.375	0.377 J	0.286	0.23	0.254	0.284	0.221	0.406 J	---	0.324
Lead	0.015	Not Applicable		mg/L	<0.0001 #	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	---	<0.000600
Lithium	None	Not Applicable		mg/L	0.161 J #	0.166	0.172	0.155	0.154	0.151	0.146	0.152	0.151	0.180	---	0.158
Mercury	0.002	Not Applicable		mg/L	<0.00015 #	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	0.0000500 J	0.0000300 J	<0.0000300	---	<0.0000300
Molybdenum	None	Not Applicable		mg/L	<0.01 #	0.00170 J	0.00143 J	0.00104 J	0.000709 J	0.000760 J	<0.000600	<0.000600	<0.000600	<0.000600	---	<0.000600
Selenium	0.05	Not Applicable		mg/L	<0.0003 #	<0.0011	<0.0011	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	---	<0.00110
Thallium	0.002	Not Applicable		mg/L	<0.0008 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Ra-226 + Ra-228 (combined)	5	Not Applicable		pCi/L	1.65 +/- 0.369 #	2.6	---	0.97	1.79	2.02	1.42	1.76	1.68	1.33	---	4.68
Other Parameters																
Chemical Oxygen Demand (COD)	None	Not Applicable	Not Applicable	mg/L	<5	<5	---	<5.00	5.00 J	---	<5.00	<5.00	6.00 J	6.00 J	---	12.0 J
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	327	327	332	348	330	---	321
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	<5	---	---	---	<5	<5	<5	<5.00	<5	---	<5
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	321	---	---	---	327	327	332	348	330	---	321
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	<5	---	---	---	<5	<5	<5	<5.00	<5	---	<5
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.771(J)	0.236	0.162 J	1.22	0.249	---	0.803
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<0.0120	0.169 J	0.150 J	0.357	0.189	---	0.475
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.098	0.184	0.055	0.285	0.13	---	0.578
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	0.0340 J	<0.0200 H	0.142	---	0.489
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	0.107	0.935	0.119	---	0.225
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	0.116	0.357	0.0470 J	---	<0.0200
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	28.8	27.9	---	---	26.6	26.2	25.9	26.5	29.2	---	25.4
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.000768(J)	0.000621 J	0.00165 J	<0.000600	<0.000600	---	<0.000600
Nitrate as N	10	Not Applicable	Not Applicable	mg/L	0.087 J #	0.478	0.509	1.64	<0.0300	0.316	<0.150	<0.0600	<0.0600	0.484 J	---	0.0777 J
Potassium	None	Not Applicable	Not Applicable	mg/L	---	8.64	8.37	---	---	7.66	7.94	7.87	7.84	8.73	---	7.8
Sodium	None	Not Applicable	Not Applicable	mg/L	---	516	467	---	---	382	388	413	388	503	---	424
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	3000 #	3270	---	---	---	---	3660	3260	3320	3,490	---	3540
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<1	<1	<1	3.08	<1	---	<1
Field Parameters																
Temperature	None	Not Applicable	Not Applicable	ºC	23.1	16.2	---	17.75	24.4	21	23.7	15.84	20.0	15.2	---	25.2
pH	6.5 - 8.5	Not Applicable	Not Applicable	S.U.	6.93	6.9	---	7.28	7.1	7.04	7.1	7.33	7.00	7.17	---	6.9
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	3491	3251	---	3386	3435	3107	3394	4453	2,989	3,300	---	3400
Dissolved Oxygen	None	Not Applicable	Not Applicable	mg/L	0.31	0.19	---	1.45	0.62	0.79	0.59	0.34	0.40	0.66	---	0.57
Oxidation-Reduction Potential	None	Not Applicable	Not Applicable	mV	13.1	19.5	---	4.6	27.7	-45.7	107.1	20.5	-128.9	35.2	---	-70
Turbidity	None	Not Applicable	Not Applicable	NTU	3.17	4.89	0.94	2.06	3.88	4.71	2.96	3.52	9.38	2.40	---	1.24

Notes:

1. MCL : Maximum Contaminant Level: Values obtained from EPA Primary/Secondary Drinking Water Standards.
   The MCL value for lead is the EPA's Action Level.
2. mg/L : milligrams per liter.
3. pCi/L : picoCuries per liter.
4. S.U. : Standard Units.
5. ºC : degrees Celsius.
6. µmhos/cm : micromhos per centimeter.
7. mV : millivolts.
8. NTU : Nephelometric Turbidity Unit.
9. < : Analyte not detected at the laboratory method detection limit (MDL).
10. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
11. Cells shaded in blue indicate results that are above the laboratory MDL.
12. The sulfate value for sample MW-25R collected June 9, 2017 was originally reported by the laboratory as 331 mg/L. The laboratory reprepared and analyzed the sample. The value for sulfate on this table is the result of the reanalysis.
13. --- : no analysis performed.
14. Data validation based on USEPA "National Functional Guidelines", OSWER 9355.0-132, EPA-540-R-014-002, Revision August 2014 for Organics and OSWER 9355.0-131, EPA-540-R-013-001, Revision August 2014 for Inorganics.
    U ( ) : The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
    UJ : The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
    J* : The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
    R : The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
15. New pumps were installed in MW-5S, MW-7S, MW-19S, and MW-25R in January 2017.
16. # : Data from Initial Assessment Monitoring determined to be invalid due to laboratory issues and are not to be used in statistical evaluation. Resampling was conducted in January 2019 (both filtered and unfiltered). Data from unfiltered analysis from January 2019 is appropriate for statistical evaluation.
17. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT B
GROUNDWATER SAMPLE DATA TO DATE FOR LANDFILL CCR UNIT
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	MCL or SMCL	Established Background (Det. Mon.)	Established GWPS (Ass. Mon.)	Sample ID: / Sample Date:	MW-15A 26-May-16	MW-15A 23-Aug-16	MW-15A 28-Sep-16	MW-15A 30-Nov-16	DUP 1 30-Nov-16	MW-15A 30-Jan-17	MW-15A 30-Mar-17	MW-15A 1-Jun-17	MW-15A 9-Aug-17	MW-15A 24-May-18	MW-15A (Shallow) 1-Aug-18	MW-15A (Deep) 10-Aug-18
Detection Monitoring Parameters				*Units*	BACKGROUND 1	BACKGROUND 2	BACKGROUND 3	BACKGROUND 4		BACKGROUND 5	BACKGROUND 6	BACKGROUND 7	BACKGROUND 8	DETECTION MON. #1	EVALUATION SAMPLE	VERIFICATION SAMPLE
Boron	None	1.896	Not Applicable	mg/L	3.33	3.57	4.52	4.44	5.36	4.64	2.01	3.54	3.38	4.83	3.7	4.14
Calcium	None	670.30	Not Applicable	mg/L	152	154	181	209	279	151	117	183	156	160	93.4	129
Chloride	250	18.51	Not Applicable	mg/L	27.1	26.6	27.9	27	26.5	25.4	27.4	28.1	25.7	26.9	26.6	26.5
Fluoride	4	0.6359	Not Applicable	mg/L	1.23	1.32	1.49	1.32	1.33	1.4	1.15	1.09	1.37	1.76	1.2	1.17
pH (laboratory)	6.5 - 8.5	6.485 - 8.018	Not Applicable	S.U.	7.66	8.1	8	7.6	7.7	7.6	7.4	7.5	7.5	7.6	7.8	7.8
Sulfate	250	1,824	Not Applicable	mg/L	1450	1570	1580	1630	1610	1580	1760	1610	1720	1690	1510	1490
Total Dissolved Solids	500	2,774	Not Applicable	mg/L	2470	2420	2410	2540	2530	2460	2640	2600	2710	2660	2490	2610
Assessment Monitoring Parameters																
Antimony	0.006	Not Applicable	0.006 (MCL)	mg/L	<0.000500	<0.000800	<0.000800	<0.00800	<0.00400	<0.000800	<0.00400	<0.000800	<0.00400	---	---	---
Arsenic	0.010	Not Applicable	0.01 (MCL)	mg/L	0.00242	0.00218	0.00205	<0.00400	0.00407 J	0.00156 J	<0.00200	0.00218	0.00259 J	---	---	---
Barium	2	Not Applicable	2 (MCL)	mg/L	0.0269	0.0338	0.0273	0.026	0.0383	0.0255	0.0167	0.0232	0.0217	---	---	---
Beryllium	0.004	Not Applicable	0.004 (MCL)	mg/L	<0.00100	<0.000100	<0.000100	<0.00100	<0.000500	<0.000100	<0.000500	<0.000100	<0.000500	---	---	---
Cadmium	0.005	Not Applicable	0.005 (MCL)	mg/L	<0.000400	<0.000100	<0.000100	<0.00100	<0.000500	<0.000100	<0.000500	<0.000100	<0.000500	---	---	---
Chromium	0.1	Not Applicable	0.1 (MCL)	mg/L	0.000638 J	<0.000500	<0.000500	<0.00500	<0.00250	<0.000500	<0.00250	<0.000500	<0.00250	---	---	---
Cobalt	None	Not Applicable	0.006 (ACL)	mg/L	0.000664 J	0.000467 J	0.000659 J	<0.00100	0.000661 J	0.000346 J	<0.000500	0.000215 J	<0.000500	---	---	---
Fluoride	4	Not Applicable	4 (MCL)	mg/L	1.23	1.32	1.49	1.32	1.33	1.4	1.15	1.09	1.37	1.76	1.2	1.17
Lead	0.015	Not Applicable	0.015 (MCL)	mg/L	0.000264 J	<0.000100	<0.000100	<0.00100	<0.000500	<0.000100	<0.000500	<0.000100	<0.000500	---	---	---
Lithium	None	Not Applicable	0.235 (UTL)	mg/L	0.0748	0.0646	0.0575	0.0630 J	0.0766 J	0.059	0.0437 J	0.0552	0.0538 J	---	0.0669	0.0594
Mercury	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	0.000175 J	<0.000150	<0.000100	---	---	---
Molybdenum	None	Not Applicable	0.1 (ACL)	mg/L	0.306	0.208	0.256	0.276	0.343	0.261	0.182	0.235	0.255	---	0.202	0.182
Selenium	0.05	Not Applicable	0.05 (MCL)	mg/L	<0.000600	<0.000300	<0.000300	<0.00300	<0.00150	0.000357 J	<0.00150	0.000539 J	0.00161 J	---	---	---
Thallium	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.000500	<0.000800	<0.000800	<0.00800	<0.00400	<0.000800	<0.00400	<0.000800	<0.00400	---	---	---
Ra-226 + Ra-228 (combined)	5	Not Applicable	5 (MCL)	pCi/L	1.01 +/- 0.268	0.846 +/- 0.371	0.636 +/- 0.292	1.38 +/- 0.431	1.33 +/- 0.426	1.21 +/- 0.359	1.36 +/- 0.333	1.86 +/- 0.390	2.19 +/- 0.392	---	---	---
Other Parameters																
Chemical Oxygen Demand (COD)	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<5.00	---	---	---
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	130	---	---	---
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<5.00	---	---	---
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	9.36	---	---	---
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate as N	10	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Potassium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	5.28	---	---	---
Sodium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	541	---	---	---
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	---	---	---	---	---	---	---	---	---	---	---	---
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																
Temperature	None	Not Applicable	Not Applicable	°C	20.05	24.8	21.87	18.2	---	20.43	19.34	20.24	22.68	21.24	25.05	23.28
pH	6.5 - 8.5	Not Applicable	Not Applicable	S.U.	7.73	7.72	7.69	7.59	---	7.5	7.6	7.47	7.42	7.72	7.42	7.43
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	3050	3373	3442	3430	---	3488	3520	3498	3524	3505	3548	3578
Dissolved Oxygen	None	Not Applicable	Not Applicable	mg/L	0.16	0.37	0.06	0.33	---	0.29	0.22	0.08	0.06	0.14	1.62	1.23
Oxidation-Reduction Potential	None	Not Applicable	Not Applicable	mV	66.1	-61.7	-96.7	-211.9	---	-140.6	-81.1	-82.3	43.1	-101.3	133.1	140.8
Turbidity	None	Not Applicable	Not Applicable	NTU	4.97	0.7	0.18	0.31	---	0.52	0.66	0.53	1.31	0.39	5.5	1.68

Notes:

1. MCL : Maximum Contaminant Level: Values obtained from EPA Primary/Secondary Drinking Water Standards.
   The MCL value for lead is the EPA's Action Level.
2. mg/L : milligrams per liter.
3. pCi/L : picoCuries per liter.
4. S.U. : Standard Units.
5. °C : degrees Celsius.
6. µmhos/cm : micromhos per centimeter.
7. mV : millivolts.
8. NTU : Nephelometric Turbidity Unit.
9. < : Analyte not detected at the laboratory method detection limit (MDL).
10. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
11. Cells shaded in blue indicate results that are above the laboratory MDL.
12. The sulfate value for sample MW-25R collected June 9, 2017 was originally reported by the laboratory as 331 mg/L. The laboratory reprepared and analyzed the sample. The value for sulfate on this table is the result of the reanalysis.
13. --- : no analysis performed.
14. Data validation based on USEPA "National Functional Guidelines", OSWER 9355.0-132, EPA-540-R-014-002, Revision August 2014 for Organics and OSWER 9355.0-131, EPA-540-R-013-001, Revision August 2014 for Inorganics.
    U ( ) : The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
    UJ : The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
    J* : The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
    R : The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
15. New pumps were installed in MW-5S, MW-7S, MW-19S, and MW-25R in January 2017.
16. # : Data from Initial Assessment Monitoring determined to be invalid due to laboratory issues and are not to be used in statistical evaluation. Resampling was conducted in January 2019 (both filtered and unfiltered). Data from unfiltered analysis from January 2019 is appropriate for statistical evaluation.
17. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT B
GROUNDWATER SAMPLE DATA TO DATE FOR LANDFILL CCR UNIT
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	MCL or SMCL	Established Background (Det. Mon.)	Established GWPS (Ass. Mon.)	Sample ID:	MW-15A	DUP 2	MW-15A		MW-15A	MW-15A	MW-15A	MW-15A	MW-15A	MW-15A	MW-15A		MW-15A
				Sample Date:	2-Oct-18	2-Oct-18	10-Jan-19		25-Apr-19	2-Oct-19	18-Jun-20	8-Oct-20	31-Mar-21	13-Oct-21	30-Mar-22	Jun-22	Oct-22
Detection Monitoring Parameters				*Units*	INITIAL ASSESSMENT MON.		INITIAL ASSESSMENT MON. (RESAMPLE) UNFILTERED	INITIAL ASSESSMENT MON. (RESAMPLE) FILTERED	FIRST 2019 ASSESSMENT MON.	SECOND 2019 ASSESSMENT MON.	FIRST 2020 ASSESSMENT MON.	SECOND 2020 ASSESSMENT MON.	FIRST 2021 ASSESSMENT MON.	SECOND 2021 ASSESSMENT MON.	FIRST 2022 ASSESSMENT MON.	FIRST 2022 ASSESSMENT MON. (RESAMPLE)	SECOND 2022 ASSESSMENT MON.
Boron	None	1.896	Not Applicable	mg/L	3.76 #	3.77 #	3.52	5.48	3.61	3.19	4.57	3.33	3.35	2.14	3.35	---	3.11
Calcium	None	670.30	Not Applicable	mg/L	170 #	171 #	129	187	92	82.4	141	89.8	78.6	96.6	119	---	113
Chloride	250	18.51	Not Applicable	mg/L	26.6 #	26.5 #	26.3	26.9	21.9	25.9	26.3	26.5	27.3	25.7	27.0	---	26.2
Fluoride	4	0.6359	Not Applicable	mg/L	1.21 #	1.2 #	1.22	1.46	1.02	1.24	0.86	1.14	1.13	1.01	1.31	---	1.31
pH (laboratory)	6.5 - 8.5	6.485 - 8.018	Not Applicable	S.U.	8.2 #	8.2 #	7.02	---	8.02	7.58	7.68	7.77	7.93	7.45	8.08	---	7.74
Sulfate	250	1,824	Not Applicable	mg/L	1570 #	1580 #	1610	1540	1310	1510	1680	1650	1590	1580	1,540	---	1510
Total Dissolved Solids	500	2,774	Not Applicable	mg/L	2650 #	2570 #	2590	2640	2570	2500	2520	2460	2420	2370	2,450	---	2370
Assessment Monitoring Parameters																	
Antimony	0.006	Not Applicable	0.006 (MCL)	mg/L	<0.0008 #	<0.0008 #	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	---	<0.000400
Arsenic	0.010	Not Applicable	0.01 (MCL)	mg/L	0.00179 J #	0.00166 J #	0.000626 J	0.00122 J	0.000663 J	0.000676 J	0.000965 J	0.000592 J	0.000523 J	0.00113 J	0.000661 J	---	0.000790 J
Barium	2	Not Applicable	2 (MCL)	mg/L	0.0226 #	0.0229 #	0.023	0.0192	0.0217	0.0216	0.0291	0.0199	0.0186	0.0224	0.0222	---	0.0215
Beryllium	0.004	Not Applicable	0.004 (MCL)	mg/L	<0.0001 #	<0.0001 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Cadmium	0.005	Not Applicable	0.005 (MCL)	mg/L	<0.0001 #	<0.0001 #	0.000231 J	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Chromium	0.1	Not Applicable	0.1 (MCL)	mg/L	0.00119 J #	<0.0005 #	<0.000400	<0.000400	<0.000400	<0.000400	0.000900 J	<0.000400	<0.000400	0.000502 J	<0.000400	---	<0.000400
Cobalt	None	Not Applicable	0.006 (ACL)	mg/L	0.000293 J #	0.000210 J #	<0.000200	0.000374 J	0.000231 J	0.000257 J	0.000402 J	0.000221 J	<0.000200	0.000296 J	0.000651 J	---	<0.000200
Fluoride	4	Not Applicable	4 (MCL)	mg/L	1.21 #	1.2 #	1.22	1.46	1.02	1.24	0.86	1.14	1.13	1.01	1.31	---	1.31
Lead	0.015	Not Applicable	0.015 (MCL)	mg/L	0.000386 J #	0.000145 J #	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	---	<0.000600
Lithium	None	Not Applicable	0.235 (UTL)	mg/L	0.0613 #	0.0598 #	0.0701	0.0582	0.0858	0.0743	0.111	0.0709	0.073	0.0627	0.0815	---	0.0643
Mercury	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.000100 #	<0.000100 #	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	0.0000420 J	<0.0000300	<0.0000300	---	0.0000390 J
Molybdenum	None	Not Applicable	0.1 (ACL)	mg/L	0.233 #	0.228 #	0.205	0.244	0.219	0.196	0.269	0.167	0.168	0.149	0.181	---	0.149
Selenium	0.05	Not Applicable	0.05 (MCL)	mg/L	0.000459 J #	0.000353 J #	<0.0011	<0.0011	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	---	<0.00110
Thallium	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.0008 #	<0.0008 #	0.000565 J	0.000375 J	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Ra-226 + Ra-228 (combined)	5	Not Applicable	5 (MCL)	pCi/L	1.28 +/- 0.294 #	1.66 +/- 0.358 #	1.46	---	<0.87	2.03	1.67	1.72	1.45	2.04	1.61	---	1.69
Other Parameters																	
Chemical Oxygen Demand (COD)	None	Not Applicable	Not Applicable	mg/L	9.51 J #	7.46 J #	7.00 J	---	<5.00	18	---	5.00 J	<5.00	11.0 J	7.00 J	---	11.0 J
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	209	204	196	226	193	---	189
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	<5	---	---	---	<5	<5	<5	<5.00	<5	---	<5
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	149	---	---	---	209	204	196	226	193	---	189
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	---	<5	---	---	---	<5	<5	<5	<5.00	<5	---	<5
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	0.0535(J)	0.0496 J	0.0492 J	0.368	0.236	---	0.208
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	<0.0120	0.165 J	0.133 J	0.590	0.234	---	0.367
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	0.0410(J)	0.0210 J	0.054	0.284	0.2	---	0.089
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	0.0320 J	<0.0200 H	0.243	---	0.358
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<0.02	0.0840	0.0360 J	---	<0.0200
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	0.101	0.590	<0.02	---	<0.0200
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	---	12.4	10.9	---	---	165	11	10.9	10.2	12.3	---	10.3
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	0.168	0.153	0.159	0.181	0.159	---	0.149
Nitrate as N	10	Not Applicable	Not Applicable	mg/L	0.068 J #	0.065 J #	1.42	0.616	1.72	0.287	<0.0600	<0.150	1.14	0.0704 J	0.894	---	0.246
Potassium	None	Not Applicable	Not Applicable	mg/L	---	---	5.98	5.47	---	---	8.24	5.15	5.47	4.97	5.91	---	4.96
Sodium	None	Not Applicable	Not Applicable	mg/L	---	---	746	703	---	---	1040	627	594	421	680	---	609
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	3490 #	3480 #	3540	---	---	---	---	3780	3400	3370	3,620	---	3590
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	1.12	<1	<1	<1.00	<1	---	<1
Field Parameters																	
Temperature	None	Not Applicable	Not Applicable	°C	23.1	---	18.5	---	20.72	27.05	24.09	22.2	16.37	22.4	18.1	---	25.6
pH	6.5 - 8.5	Not Applicable	Not Applicable	S.U.	7.53	---	7.45	---	7.82	7.71	7.73	7.71	7.82	7.61	7.65	---	7.58
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	3563	---	3449	---	3544	3575	3337	3422	4,645	3,431	3,386	---	3393
Dissolved Oxygen	None	Not Applicable	Not Applicable	mg/L	0.21	---	0.41	---	1.24	0.71	1.39	0.28	4.97	0.38	0.51	---	0.4
Oxidation-Reduction Potential	None	Not Applicable	Not Applicable	mV	-69.9	---	98	---	-22.1	-79.5	-50.3	167.2	13.8	-59.9	93.7	---	-85.1
Turbidity	None	Not Applicable	Not Applicable	NTU	4.11	---	1.13	1.09	0.55	0.84	2.6	1.73	0.88	3.34	2.38	---	0.9

Notes:

1. MCL : Maximum Contaminant Level: Values obtained from EPA Primary/Secondary Drinking Water Standards.
   The MCL value for lead is the EPA's Action Level.
2. mg/L : milligrams per liter.
3. pCi/L : picoCuries per liter.
4. S.U. : Standard Units.
5. °C : degrees Celsius.
6. µmhos/cm : micromhos per centimeter.
7. mV : millivolts.
8. NTU : Nephelometric Turbidity Unit.
9. < : Analyte not detected at the laboratory method detection limit (MDL).
10. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
11. Cells shaded in blue indicate results that are above the laboratory MDL.
12. The sulfate value for sample MW-25R collected June 9, 2017 was originally reported by the laboratory as 331 mg/L. The laboratory reprepared and analyzed the sample. The value for sulfate on this table is the result of the reanalysis.
13. --- : no analysis performed.
14. Data validation based on USEPA "National Functional Guidelines", OSWER 9355.0-132, EPA-540-R-014-002, Revision August 2014 for Organics and OSWER 9355.0-131, EPA-540-R-013-001, Revision August 2014 for Inorganics.
    U ( ) : The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
    UJ : The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
    J* : The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
    R : The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
15. New pumps were installed in MW-5S, MW-7S, MW-19S, and MW-25R in January 2017.
16. # : Data from Initial Assessment Monitoring determined to be invalid due to laboratory issues and are not to be used in statistical evaluation. Resampling was conducted in January 2019 (both filtered and unfiltered). Data from unfiltered analysis from January 2019 is appropriate for statistical evaluation.
17. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT B
GROUNDWATER SAMPLE DATA TO DATE FOR LANDFILL CCR UNIT
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	MCL or SMCL	Established Background (Det. Mon.)	Established GWPS (Ass. Mon.)	Sample ID:	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	DUP 3	MW-16	MW-16 (Shallow)	MW-16 (Deep)
				Sample Date:	1-Jun-16	23-Aug-16	29-Sep-16	6-Dec-16	1-Feb-17	6-Apr-17	7-Jun-17	11-Aug-17	11-Aug-17	22-May-18	1-Aug-18	10-Aug-18
Detection Monitoring Parameters				***Units***	BACKGROUND 1	BACKGROUND 2	BACKGROUND 3	BACKGROUND 4	BACKGROUND 5	BACKGROUND 6	BACKGROUND 7	BACKGROUND 8		DETECTION MON. #1	EVALUATION SAMPLE	VERIFICATION SAMPLE
Boron	None	1.896	Not Applicable	mg/L	1.39	1.44	2.84	2.38	2.43	1.64	1.64	1.79	1.74	1.95	1.9	2.39 J
Calcium	None	670.30	Not Applicable	mg/L	365	242	192	311	153	241	357 J*	238	235	122	159	185
Chloride	250	18.51	Not Applicable	mg/L	<35.0	20.2	23.2	22.9	26.5	16.7 J*	15.3 J*	18	17.7	21.3	20.6	29.6
Fluoride	4	0.6359	Not Applicable	mg/L	0.843	1.02	1.36	0.936 J*	1.03	0.759 J*	0.721 J*	0.817	0.801	1.01	0.963	1.17
pH (laboratory)	6.5 - 8.5	6.485 - 8.018	Not Applicable	S.U.	7.05	7.8	7.6	7.6	7.6	7.3	7.2	7.2	7.2	7.5	7.5	7.8
Sulfate	250	1,494	Not Applicable	mg/L	1340	1040	1070	1390	915	1180	995	1020	1020	933	938	998
Total Dissolved Solids	500	1,883	Not Applicable	mg/L	1790	1780	1760	1790	1860	1740	1690	1710	1730	1820	1810	1930
Assessment Monitoring Parameters																
Antimony	0.006	Not Applicable	0.006 (MCL)	mg/L	<0.00250	<0.000800	<0.000800	<0.00400	<0.000800	<0.000800	<0.00400	<0.000800	<0.000800	---	---	---
Arsenic	0.010	Not Applicable	0.01 (MCL)	mg/L	<0.00250	0.00101 J	U (0.00164)	<0.00200	0.000757 J	0.00122 J	<0.00400	0.000409 J	0.000453 J	---	---	---
Barium	2	Not Applicable	2 (MCL)	mg/L	0.027	0.0291	0.0262	0.0461	0.0235	0.0246	0.027	0.024	0.024	---	---	---
Beryllium	0.004	Not Applicable	0.004 (MCL)	mg/L	<0.00500	<0.000100	<0.000100	<0.000500	<0.000100	U (0.000375)	<0.000500	<0.000100	<0.000100	---	---	---
Cadmium	0.005	Not Applicable	0.005 (MCL)	mg/L	<0.00200	<0.000100	<0.000100	<0.000500	<0.000100	<0.000100	<0.00100	<0.000100	<0.000100	---	---	---
Chromium	0.1	Not Applicable	0.1 (MCL)	mg/L	0.00604 J	<0.000500	0.0579	<0.00250	<0.000500	<0.000500	<0.00500	<0.000500	<0.000500	---	---	---
Cobalt	None	Not Applicable	0.006 (ACL)	mg/L	<0.00250	0.000340 J	0.000498 J	<0.000500	<0.000100	<0.000100	<0.00100	0.000354 J	0.000343 J	---	---	---
Fluoride	4	Not Applicable	4 (MCL)	mg/L	0.843	1.02	1.36	0.936 J*	1.03	0.759 J*	0.721 J*	0.817	0.801	1.01	0.963	1.17
Lead	0.015	Not Applicable	0.015 (MCL)	mg/L	<0.000200	<0.000100	<0.000100	<0.000500	<0.000100	<0.000100	<0.000500	<0.000100	<0.000100	---	---	---
Lithium	None	Not Applicable	0.235 (UTL)	mg/L	0.0495 J	0.0509	0.0470 J	0.0760 J	0.0632	0.0525	0.0534 J	0.0480 J	0.0472 J	---	0.0571	0.0491
Mercury	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.000150	<0.000150	<0.000150	<0.000150 UJ	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	---	---	---
Molybdenum	None	Not Applicable	0.1 (ACL)	mg/L	0.135 J	0.134	0.0949	0.17	0.114	0.177	0.218	0.181	0.181	---	0.145	0.154
Selenium	0.05	Not Applicable	0.05 (MCL)	mg/L	<0.00300	<0.000300	U (0.000418)	<0.00150	0.000307 J	<0.000300	<0.00300	<0.000300	<0.000300	---	---	---
Thallium	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.000500	<0.000800	<0.000800	<0.00400	<0.000800	<0.000800	<0.00400	<0.000800	<0.000800	---	---	---
Ra-226 + Ra-228 (combined)	5	Not Applicable	5 (MCL)	pCi/L	1.28 +/- 0.305	1.01 +/- 0.359	1.11 +/- 0.324	0.925 +/- 0.572	1.09 +/- 0.398	0.504 +/- 0.260	0.608 +/- 0.256	1.55 +/- 0.391	0.994 +/- 0.366	---	---	---
Other Parameters																
Chemical Oxygen Demand (COD)	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<5.00	<5.00	---	---	---
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	238	215	---	---	---
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<5.00	<5.00	---	---	---
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	----	---	---	---
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	----	---	---	---
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	----	---	---	---
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	----	---	---	---
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	----	---	---	---
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	----	---	---	---
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	10.3	10.1	---	---	---
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	----	---	---	---
Nitrate as N	10	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Potassium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	3.33	3.28	---	---	---
Sodium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	272	270	---	---	---
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	---	---	---	---	---	---	---	---	---	---	---	---
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	----	---	---	---
Field Parameters																
Temperature	None	Not Applicable	Not Applicable	ºC	18.9	23.5	21.62	16.91	19.27	17.92	20.46	24.61	---	22.87	23.7	23.74
pH	6.5 - 8.5	Not Applicable	Not Applicable	S.U.	7.24	7.33	7.32	7.14	7.49	7.23	7.1	7.09	---	7.57	7.11	7.3
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	2066	2327	2492	2395	2620	2275	2256	2330	---	2463	2436	2678
Dissolved Oxygen	None	Not Applicable	Not Applicable	mg/L	0.38	2.53	0.31	0.25	0.59	0.81	0.04	0.16	---	0.37	1.59	2.7
Oxidation-Reduction Potential	None	Not Applicable	Not Applicable	mV	-47.3	46	-106.4	-135.8	-104.9	10.2	0.4	60.3	---	-83.7	186.4	150.4
Turbidity	None	Not Applicable	Not Applicable	NTU	2.18	0.85	0.33	0.98	0.18	0.63	0.61	1.11	---	1.21	3.49	2.96

Notes:

1. MCL : Maximum Contaminant Level: Values obtained from EPA Primary/Secondary Drinking Water Standards.
   The MCL value for lead is the EPA's Action Level.
2. mg/L : milligrams per liter.
3. pCi/L : picoCuries per liter.
4. S.U. : Standard Units.
5. ºC : degrees Celsius.
6. µmhos/cm : micromhos per centimeter.
7. mV : millivolts.
8. NTU : Nephelometric Turbidity Unit.
9. < : Analyte not detected at the laboratory method detection limit (MDL).
10. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
11. Cells shaded in blue indicate results that are above the laboratory MDL.
12. The sulfate value for sample MW-25R collected June 9, 2017 was originally reported by the laboratory as 331 mg/L. The laboratory reprepared and analyzed the sample. The value for sulfate on this table is the result of the reanalysis.
13. --- : no analysis performed.
14. Data validation based on USEPA "National Functional Guidelines", OSWER 9355.0-132, EPA-540-R-014-002, Revision August 2014 for Organics and OSWER 9355.0-131, EPA-540-R-013-001, Revision August 2014 for Inorganics.
    U ( ) : The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
    UJ : The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
    J* : The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
    R : The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
15. New pumps were installed in MW-5S, MW-7S, MW-19S, and MW-25R in January 2017.
16. # : Data from Initial Assessment Monitoring determined to be invalid due to laboratory issues and are not to be used in statistical evaluation. Resampling was conducted in January 2019 (both filtered and unfiltered). Data from unfiltered analysis from January 2019 is appropriate for statistical evaluation.
17. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT B
GROUNDWATER SAMPLE DATA TO DATE FOR LANDFILL CCR UNIT
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	MCL or SMCL	Established Background (Det. Mon.)	Established GWPS (Ass. Mon.)	Sample ID:	MW-16	MW-16		MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16		MW-16
				Sample Date:	2-Oct-18	16-Jan-19		23-Apr-19	3-Oct-19	18-Jun-20	13-Oct-20	1-Apr-21	14-Oct-21	1-Apr-22	7-Jun-22	6-Oct-22
Detection Monitoring Parameters				***Units***	INITIAL ASSESSMENT MON.	INITIAL ASSESSMENT MON. (RESAMPLE) UNFILTERED	FILTERED	FIRST 2019 ASSESSMENT MON.	SECOND 2019 ASSESSMENT MON.	FIRST 2020 ASSESSMENT MON.	SECOND 2020 ASSESSMENT MON.	FIRST 2021 ASSESSMENT MON.	SECOND 2021 ASSESSMENT MON.	FIRST 2022 ASSESSMENT MON.	FIRST 2022 ASSESSMENT MON. (RESAMPLE)	SECOND 2022 ASSESSMENT MON.
Boron	None	1.896	Not Applicable	mg/L	2.05 #	2.23	2.38	1.85	1.53	1.43	1.78	1.57	1.61	1.85	---	2.54
Calcium	None	670.30	Not Applicable	mg/L	221 #	215	215	192	149	186	166	140	158	153	---	132
Chloride	250	18.51	Not Applicable	mg/L	18 #	19	18.8	15.8	23.8	14.7	14.8	14.4	16.2	16.6^	15.0	25.8
Fluoride	4	0.6359	Not Applicable	mg/L	0.832 #	0.82	1.11	0.741	1.07	0.694	0.893	0.916	0.964	1.3^	1.01	1.25
pH (laboratory)	6.5 - 8.5	6.485 - 8.018	Not Applicable	S.U.	8.2 #	7.33	---	7.88	7.01	7.6	7.63	7.83	7.75	7.42^	7.92	7.85
Sulfate	250	1,494	Not Applicable	mg/L	959 #	1020	1030	974	1020	1030	929	1070	1110	1100^	1090	996
Total Dissolved Solids	500	1,883	Not Applicable	mg/L	1780 #	1740	1670	1740	1810	1610	1610	1790	1590	1670^	1700	1,690
Assessment Monitoring Parameters																
Antimony	0.006	Not Applicable	0.006 (MCL)	mg/L	<0.0008 #	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	---	<0.000400
Arsenic	0.010	Not Applicable	0.01 (MCL)	mg/L	<0.002 #	<0.000400	<0.000400	<0.000400	0.000465 J	<0.000400	<0.000400	<0.000400	0.000417 J	<0.000400	---	<0.000400
Barium	2	Not Applicable	2 (MCL)	mg/L	0.0203 #	0.0226	0.0224	0.0178	0.0133	0.0142	0.0156	0.0123	0.0143	0.0127	---	0.0132
Beryllium	0.004	Not Applicable	0.004 (MCL)	mg/L	<0.0005 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Cadmium	0.005	Not Applicable	0.005 (MCL)	mg/L	<0.0001 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	0.000218 J	<0.000200	---	<0.000200
Chromium	0.1	Not Applicable	0.1 (MCL)	mg/L	<0.0025 #	<0.000400	<0.000400	<0.000400	<0.000400	0.000423 J	0.000416 J	0.00141 J	<0.000400	<0.000400	---	<0.000400
Cobalt	None	Not Applicable	0.006 (ACL)	mg/L	0.000172 J #	<0.000200	<0.000200	<0.000200	0.000375 J	<0.000200	<0.000200	<0.000200	0.000415 J	0.000507 J	---	<0.000200
Fluoride	4	Not Applicable	4 (MCL)	mg/L	0.832 #	0.82	1.11	0.741	1.07	0.694	0.893	0.916	0.964	1.3^	1.01	1.25
Lead	0.015	Not Applicable	0.015 (MCL)	mg/L	<0.0001 #	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	---	<0.000600
Lithium	None	Not Applicable	0.235 (UTL)	mg/L	0.0607 J #	0.0689	0.0632	0.0586	0.0424	0.046	0.0477	0.0454	0.0466	0.0496	---	0.0534
Mercury	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.000100 #	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	0.0000570 J	0.000158 J	<0.0000300	---	<0.0000300
Molybdenum	None	Not Applicable	0.1 (ACL)	mg/L	0.169 #	0.18	0.18	0.193	0.149	0.172	0.149	0.166	0.163	0.146	---	0.113
Selenium	0.05	Not Applicable	0.05 (MCL)	mg/L	<0.0003 #	<0.0011	<0.0011	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	---	<0.00110
Thallium	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.0008 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Ra-226 + Ra-228 (combined)	5	Not Applicable	5 (MCL)	pCi/L	1.07 +/- 0.288 #	1.01	---	<0.62	0.81	1.18	1.35	0.99	1.82	<0.78	---	1.94
Other Parameters																
Chemical Oxygen Demand (COD)	None	Not Applicable	Not Applicable	mg/L	<5.00 #	<5	---	<5.00	<5.00	---	<5.00	<5.00	7.00 J	7.00 J ^	<5.00	6.00 J
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	232	233	228	264	94^	258	288
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	<5	---	---	---	<5	<5	<5	<5.00	<5^	<5	10.7
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	256	---	---	---	232	233	228	264	94^	258	277
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	<5	---	---	---	<5	<5	<5	<5.00	<5^	<5	<5
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.0358(J)	0.125 J	0.0536 J	0.369	0.0158 J^	0.0145 J	0.0547 J
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.0160(J)	0.0694 J	0.0140 J	0.190 J	<0.0120^	<0.0120	0.0203 J
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.0380(J)	0.0240 J	<0.020	0.191	<0.02^	<0.02	<0.0200
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<0.020	<0.0200 H	<0.02^	<0.02	<0.0200
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	0.0536	0.178	<0.02^	<0.02	0.0547
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<0.02	0.190	<0.02^	<0.02	0.0203 J
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	10.2	10.2	---	---	8.44	7.59	7.65	7.38	8.4	---	7.24
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.173	0.16	0.18	0.189	0.131	---	0.112
Nitrate as N	10	Not Applicable	Not Applicable	mg/L	0.133 #	<0.03	<0.03	0.854	<0.0300	<0.0600	<0.0600	0.687	<0.0300	50.4^	0.0630 J,H	0.127
Potassium	None	Not Applicable	Not Applicable	mg/L	---	4.18	4.07	---	---	2.85	3.09	3.12	3.18	3.58	---	3.61
Sodium	None	Not Applicable	Not Applicable	mg/L	---	405	394	---	---	309	316	325	295	389	---	415
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	2240 #	2340	---	---	---	---	2400	2420	2340	2500^	2,910	2,650
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<1	1.4	<1	<1.00	<1	<1	<1
Field Parameters				***Units***												
Temperature	None	Not Applicable	Not Applicable	°C	25.4	14.8	---	19.31	24.89	21.9	23.5	16.32	23.0	15.9	20.0	23.1
pH	6.5 - 8.5	Not Applicable	Not Applicable	S.U.	7.53	7.21	---	7.56	7.82	7.66	7.69	8.12	7.74	7.67	7.74	7.36
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	2816	2273	---	2330	2836	2438	2615	3178	2,699	1,865	2,358	2,412
Dissolved Oxygen	None	Not Applicable	Not Applicable	mg/L	0.25	1.37	---	0.83	3.67	2.18	1.99	0.46	3.3	1.06	0.42	1.55
Oxidation-Reduction Potential	None	Not Applicable	Not Applicable	mV	-131.8	278.9	---	28.7	-191.5	-56.9	60.2	57.7	-167.2	20.9	-25.9	-51.7
Turbidity	None	Not Applicable	Not Applicable	NTU	2.89	6.82	1.03	2.53	1.48	3.09	0.75	2.16	4.38	0.25	1.84	1.55

Notes:

1. MCL : Maximum Contaminant Level: Values obtained from EPA Primary/Secondary Drinking Water Standards.
   The MCL value for lead is the EPA's Action Level.
2. mg/L : milligrams per liter.
3. pCi/L : picoCuries per liter.
4. S.U. : Standard Units.
5. °C : degrees Celsius.
6. µmhos/cm : micromhos per centimeter.
7. mV : millivolts.
8. NTU : Nephelometric Turbidity Unit.
9. < : Analyte not detected at the laboratory method detection limit (MDL).
10. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
11. Cells shaded in blue indicate results that are above the laboratory MDL.
12. The sulfate value for sample MW-25R collected June 9, 2017 was originally reported by the laboratory as 331 mg/L. The laboratory reprepared and analyzed the sample. The value for sulfate on this table is the result of the reanalysis.
13. --- : no analysis performed.
14. Data validation based on USEPA "National Functional Guidelines", OSWER 9355.0-132, EPA-540-R-014-002, Revision August 2014 for Organics and OSWER 9355.0-131, EPA-540-R-013-001, Revision August 2014 for Inorganics.
    U ( ) : The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
    UJ : The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
    J* : The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
    R : The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
15. New pumps were installed in MW-5S, MW-7S, MW-19S, and MW-25R in January 2017.
16. # : Data from Initial Assessment Monitoring determined to be invalid due to laboratory issues and are not to be used in statistical evaluation. Resampling was conducted in January 2019 (both filtered and unfiltered). Data from unfiltered analysis from January 2019 is appropriate for statistical evaluation.
17. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT B
GROUNDWATER SAMPLE DATA TO DATE FOR LANDFILL CCR UNIT
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	MCL or SMCL	Established Background (Det. Mon.)	Established GWPS (Ass. Mon.)	Sample ID:	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	DUP 2	MW-17	MW-17 (Shallow)	MW-17 (Deep)
				Sample Date:	1-Jun-16	3-Aug-16	30-Sep-16	2-Dec-16	1-Feb-17	29-Mar-17	1-Jun-17	10-Aug-17	10-Aug-17	21-May-18	1-Aug-18	10-Aug-18
					BACKGROUND 1	BACKGROUND 2	BACKGROUND 3	BACKGROUND 4	BACKGROUND 5	BACKGROUND 6	BACKGROUND 7	BACKGROUND 8		DETECTION MON. #1	EVALUATION SAMPLE	VERIFICATION SAMPLE
Detection Monitoring Parameters				*Units*												
Boron	None	1.896	Not Applicable	mg/L	0.634	0.586	0.854	0.838 J	0.817	<0.875	0.713	0.666	0.64	0.588	0.659	0.845 J
Calcium	None	670.30	Not Applicable	mg/L	750	529	540	535	441	727	564	528	537	436	549	787
Chloride	250	18.51	Not Applicable	mg/L	4.08	3.64	3.46	5.58 J*	3.45	3.04	3.11	3.28	3.37	3.15	3.84	3.27
Fluoride	4	0.6359	Not Applicable	mg/L	0.322	0.365	0.58	0.480 J*	0.488	0.266	0.361	0.328	0.323	0.324	0.47	0.317
pH (laboratory)	6.5 - 8.5	6.485 - 8.018	Not Applicable	S.U.	6.82	6.8	7.5	7.6	7.1	6.9	6.8	6.9	6.8	6.9	7.2	7
Sulfate	250	1,557	Not Applicable	mg/L	1170	1300	1250	1470	1200	1140	1310	1450	1300	1140	1310	1340
Total Dissolved Solids	500	2,343	Not Applicable	mg/L	1980	2070	1980	2260	2050	1870	2180	2140	2140	2360	2340	2380
Assessment Monitoring Parameters																
Antimony	0.006	Not Applicable	0.006 (MCL)	mg/L	<0.000500	<0.00100	<0.000800	<0.00800	<0.000800	<0.000800	<0.000800	<0.000800	<0.000800	---	---	---
Arsenic	0.010	Not Applicable	0.01 (MCL)	mg/L	0.00204	0.00154 J	0.00226	<0.00400	0.000663 J	0.00251	0.00154 J	<0.000400	<0.000400	---	---	---
Barium	2	Not Applicable	2 (MCL)	mg/L	0.00545	0.00299	0.00460 J	<0.00100	0.00344	U (0.00333)	0.00160 J	0.00236	0.00293	---	---	---
Beryllium	0.004	Not Applicable	0.004 (MCL)	mg/L	<0.00100	<0.00200	<0.000100	<0.00100	<0.000100	<0.00250	<0.000100	<0.000100	<0.000100	---	---	---
Cadmium	0.005	Not Applicable	0.005 (MCL)	mg/L	<0.000400	<0.000800	<0.000100	<0.00100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	---	---	---
Chromium	0.1	Not Applicable	0.1 (MCL)	mg/L	<0.000500	<0.00100	<0.000500	<0.00500	0.00140 J	<0.000500	<0.000500	<0.000500	<0.000500	---	---	---
Cobalt	None	Not Applicable	0.006 (ACL)	mg/L	<0.000500	<0.00100	0.000225 J	<0.00100	<0.000100	<0.000500	<0.000100	<0.000100	<0.000100	---	---	---
Fluoride	4	Not Applicable	4 (MCL)	mg/L	0.322	0.365	0.58	0.480 J*	0.488	0.266	0.361	0.328	0.323	0.324	0.47	0.317
Lead	0.015	Not Applicable	0.015 (MCL)	mg/L	<0.000200	<0.000200	<0.000100	<0.00100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	---	---	---
Lithium	None	Not Applicable	0.235 (UTL)	mg/L	0.14	0.174	0.155 J	0.158 J	0.146	0.121	0.133	0.148	0.143	---	0.128	0.131
Mercury	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	---	---	---
Molybdenum	None	Not Applicable	0.1 (ACL)	mg/L	0.000840 J	<0.00100	0.00135 J	<0.0100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	---	<0.00100	<0.00100
Selenium	0.05	Not Applicable	0.05 (MCL)	mg/L	<0.000600	<0.00120	U (0.000709)	<0.00300	0.000526 J	<0.00150	<0.000300	<0.000300	<0.000300	---	---	---
Thallium	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.000500	<0.00100	<0.000800	<0.00800	<0.000800	<0.000800	<0.000800	<0.000800	<0.000800	---	---	---
Ra-226 + Ra-228 (combined)	5	Not Applicable	5 (MCL)	pCi/L	0.539 +/- 0.261	0.265 +/- 0.260 U	1.32 +/- 0.425	0.536 +/- 0.356	0.195 +/- 0.273 U	0.311 +/- 0.238 U	0.479 +/- 0.271	0.531 +/- 0.221	0.183 +/- 0.207 U	---	---	---
Other Parameters																
Chemical Oxygen Demand (COD)	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<5.00	<5.00	---	---	---
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	260	259	---	---	---
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<5.00	<5.00	---	---	---
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	36.6	36	---	---	---
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate as N	10	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Potassium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	5.15	5.14	---	---	---
Sodium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	34.5	34.4	---	---	---
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	---	---	---	---	---	---	---	---	---	---	---	---
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																
Temperature	None	Not Applicable	Not Applicable	ºC	20.98	23.28	20.36	19.58	21.96	20.3	20.57	21.98	---	20.98	25.04	22.3
pH	6.5 - 8.5	Not Applicable	Not Applicable	S.U.	6.91	6.71	6.83	6.79	6.84	6.88	6.68	6.69	---	6.92	6.64	6.8
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	2052	2230	2402	2405	2386	2396	2443	2417	---	2416	2606	2569
Dissolved Oxygen	None	Not Applicable	Not Applicable	mg/L	1.07	3.66	0.43	0.95	0.63	0.79	0.22	0.29	---	0.21	5.57	4.59
Oxidation-Reduction Potential	None	Not Applicable	Not Applicable	mV	42.5	4	-99.6	-183.4	-84	-55.9	-87.3	65.7	---	-49.2	172.9	209.4
Turbidity	None	Not Applicable	Not Applicable	NTU	0.53	0.92	0.4	0.43	0.11	0.21	0.24	0.81	---	0.52	4.63	14.5

Notes:

1. MCL : Maximum Contaminant Level: Values obtained from EPA Primary/Secondary Drinking Water Standards.
   The MCL value for lead is the EPA's Action Level.
2. mg/L : milligrams per liter.
3. pCi/L : picoCuries per liter.
4. S.U. : Standard Units.
5. ºC : degrees Celsius.
6. µmhos/cm : micromhos per centimeter.
7. mV : millivolts.
8. NTU : Nephelometric Turbidity Unit.
9. < : Analyte not detected at the laboratory method detection limit (MDL).
10. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
11. Cells shaded in blue indicate results that are above the laboratory MDL.
12. The sulfate value for sample MW-25R collected June 9, 2017 was originally reported by the laboratory as 331 mg/L. The laboratory reprepared and analyzed the sample. The value for sulfate on this table is the result of the reanalysis.
13. --- : no analysis performed.
14. Data validation based on USEPA "National Functional Guidelines", OSWER 9355.0-132, EPA-540-R-014-002, Revision August 2014 for Organics and OSWER 9355.0-131, EPA-540-R-013-001, Revision August 2014 for Inorganics.
    U ( ) : The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
    UJ : The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
    J* : The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
    R : The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
15. New pumps were installed in MW-5S, MW-7S, MW-19S, and MW-25R in January 2017.
16. # : Data from Initial Assessment Monitoring determined to be invalid due to laboratory issues and are not to be used in statistical evaluation. Resampling was conducted in January 2019 (both filtered and unfiltered). Data from unfiltered analysis from January 2019 is appropriate for statistical evaluation.
17. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT B
GROUNDWATER SAMPLE DATA TO DATE FOR LANDFILL CCR UNIT
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	MCL or SMCL	Established Background (Det. Mon.)	Established GWPS (Ass. Mon.)	Sample ID:	MW-17	MW-17		MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17		MW-17
				Sample Date:	3-Oct-18	10-Jan-19		25-Apr-19	3-Oct-19	18-Jun-20	12-Oct-20	31-Mar-21	14-Oct-21	31-Mar-22	7-Jun-22	6-Oct-22
Detection Monitoring Parameters				***Units***	INITIAL ASSESSMENT MON.	INITIAL ASSESSMENT MON. (RESAMPLE) FILTERED	UNFILTERED	FIRST 2019 ASSESSMENT MON.	SECOND 2019 ASSESSMENT MON.	FIRST 2020 ASSESSMENT MON.	SECOND 2020 ASSESSMENT MON.	FIRST 2021 ASSESSMENT MON.	SECOND 2021 ASSESSMENT MON.	FIRST 2022 ASSESSMENT MON.	FIRST 2022 ASSESSMENT MON. (RESAMPLE)	SECOND 2022 ASSESSMENT MON.
Boron	None	1.896	Not Applicable	mg/L	0.567 #	0.766	0.729	0.796	0.622	0.652	0.64	0.539	0.700	0.593	---	0.902
Calcium	None	670.30	Not Applicable	mg/L	461 #	591	499	499	555	494	453	467	428	435	---	541
Chloride	250	18.51	Not Applicable	mg/L	4.81 #	3.44	4.16	3.65	3.75	4.29	4.04	4.06	4.02	5.24^	4.16	4.25
Fluoride	4	0.6359	Not Applicable	mg/L	0.393 #	0.337	0.27	0.392 J	0.37	0.211	0.366	0.412	0.317	<0.250^	0.371	0.34
pH (laboratory)	6.5 - 8.5	6.485 - 8.018	Not Applicable	S.U.	7.5 #	6.59	---	7.53	6.37	7.38	7.51	7.34	7.12	1.87^	7.67	7.04
Sulfate	250	1,557	Not Applicable	mg/L	821 #	1480	1200	1100	1310	1390	1,220 H	1310	1390	1970^	1,460	1,320
Total Dissolved Solids	500	2,343	Not Applicable	mg/L	1670 #	2300	1870	2400	2160	2230	2160	2200	2210	2340^	2,220	2,170
Assessment Monitoring Parameters																
Antimony	0.006	Not Applicable	0.006 (MCL)	mg/L	<0.0008 #	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	---	<0.000400
Arsenic	0.010	Not Applicable	0.01 (MCL)	mg/L	<0.0004 #	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	0.000582 J	---	<0.000400
Barium	2	Not Applicable	2 (MCL)	mg/L	0.00231 #	<0.00190	0.00250 J	<0.00190	<0.00190	<0.00190	<0.00190	<0.00190	<0.00190	<0.00190	---	<0.00190
Beryllium	0.004	Not Applicable	0.004 (MCL)	mg/L	<0.0001 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Cadmium	0.005	Not Applicable	0.005 (MCL)	mg/L	<0.0001 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Chromium	0.1	Not Applicable	0.1 (MCL)	mg/L	0.0022 #	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	0.00108 J	---	<0.000400
Cobalt	None	Not Applicable	0.006 (ACL)	mg/L	<0.0001 #	0.000238 J	<0.000200	0.000313 J	<0.000200	0.000281 J	<0.000200	0.000239 J	0.000275 J	0.00148 J	---	<0.000200
Fluoride	4	Not Applicable	4 (MCL)	mg/L	0.393 #	0.337	0.27	0.392 J	0.37	0.211	0.366	0.412	0.317	<0.250^	0.371	0.34
Lead	0.015	Not Applicable	0.015 (MCL)	mg/L	<0.0001 #	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	---	<0.000600
Lithium	None	Not Applicable	0.235 (UTL)	mg/L	0.122 #	0.159	0.148	0.151	0.138	0.147	0.123	0.114	0.140	0.104	---	0.147
Mercury	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.000100 #	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	0.000142 J	0.0000540 J	<0.0000300	---	0.000151 J
Molybdenum	None	Not Applicable	0.1 (ACL)	mg/L	<0.001 #	<0.000600	<0.000600	0.000671 J	<0.000600	<0.000600	<0.000600	0.000950 J	<0.000600	<0.000600	---	<0.000600
Selenium	0.05	Not Applicable	0.05 (MCL)	mg/L	0.000675 J #	<0.0011	<0.0011	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	0.00149 J	---	<0.00110
Thallium	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.0008 #	<0.000200	<0.000200	<0.000200	0.000539 J	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Ra-226 + Ra-228 (combined)	5	Not Applicable	5 (MCL)	pCi/L	1.27 +/- 0.335 #	<0.78	---	<0.75	<0.76	<0.68	<0.69	<0.84	0.97	<0.79	---	1.48
Other Parameters																
Chemical Oxygen Demand (COD)	None	Not Applicable	Not Applicable	mg/L	6.13 J #	<5.00	---	<5.00	<5.00	---	<5.00	<5.00	7.00 J	8.00 J ^	<5.00	<5.00
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	284	273	269	288	<5^	269	276
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	<5	---	---	---	<5	<5	<5	<5.00	<5^	<5	<5
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	280	---	---	---	284	273	269	288	<5^	269	276
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	<5	---	---	---	<5	<5	<5	<5.00	<5^	<5	<5
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<0.0120	<0.0120	0.0541 J	<0.0120	0.0325 J ^	<0.0120	<0.0120
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<0.0120	<0.0120	<0.0120	0.0198 J	<0.012^	<0.0120	0.0581 J
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.02(J)	<0.02	<0.02	<0.0200	<0.02^	0.0220 J,H	<0.0200
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<0.02	<0.0200 H	<0.02^	<0.02 H	<0.0200
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	0.0541	<0.0200	0.0325 J ^	<0.02	<0.0200
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<0.02	<0.0200	<0.02^	<0.02	0.0581
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	38.1	31.3	---	---	37.8	30.9	29.3	34.6	30.9	---	33.7
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.00123(J)	<0.000600	0.00292 J	<0.000600	<0.000600	---	<0.000600
Nitrate as N	10	Not Applicable	Not Applicable	mg/L	0.276 #	<0.03	0.519	<0.150	<0.0300	<0.0600	<0.0600	<0.0300	<0.0600	420 H ^	0.0834 J,H	0.0756 J
Potassium	None	Not Applicable	Not Applicable	mg/L	---	5.37	4.9	---	---	5.15	4.42	4.19	4.94	4.5	---	4.99
Sodium	None	Not Applicable	Not Applicable	mg/L	---	35.7	32.9	---	---	35.6	29.2	28.2	32.5	35.2	---	32.8
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	1920 #	2450	---	---	---	---	2610	2460	2390	11900 ^	2,920	2,570
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<1	<1	<1	1.12	<1^	<1	<1
Field Parameters				***Units***												
Temperature	None	Not Applicable	Not Applicable	°C	23.3	15.9	---	19.26	23.63	21.2	23.2	21.04	22.9	18.3	22.5	25.9
pH	6.5 - 8.5	Not Applicable	Not Applicable	S.U.	6.7	6.67	---	7.09	6.88	6.8	6.88	6.88	6.90	7.08	7.04	6.79
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	2548	2416	---	2470	2458	2344	2393	3321	2,467	1,811	2,369	2,441
Dissolved Oxygen	None	Not Applicable	Not Applicable	mg/L	0.44	0.51	---	1.8	0.8	1.35	0.41	0.27	0.52	1.86	0.8	1.94
Oxidation-Reduction Potential	None	Not Applicable	Not Applicable	mV	237.5	57.8	---	2.4	148.3	-28.1	129.9	-2.5	61.7	103.6	81.5	37.8
Turbidity	None	Not Applicable	Not Applicable	NTU	5.4	1.24	0.69	0.63	0.65	2.28	0.58	0.75	1.80	0.85	1.61	1.94

Notes:

1. MCL : Maximum Contaminant Level: Values obtained from EPA Primary/Secondary Drinking Water Standards.
   The MCL value for lead is the EPA's Action Level.
2. mg/L : milligrams per liter.
3. pCi/L : picoCuries per liter.
4. S.U. : Standard Units.
5. °C : degrees Celsius.
6. µmhos/cm : micromhos per centimeter.
7. mV : millivolts.
8. NTU : Nephelometric Turbidity Unit.
9. < : Analyte not detected at the laboratory method detection limit (MDL).
10. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
11. Cells shaded in blue indicate results that are above the laboratory MDL.
12. The sulfate value for sample MW-25R collected June 9, 2017 was originally reported by the laboratory as 331 mg/L. The laboratory reprepared and analyzed the sample. The value for sulfate on this table is the result of the reanalysis.
13. --- : no analysis performed.
14. Data validation based on USEPA "National Functional Guidelines", OSWER 9355.0-132, EPA-540-R-014-002, Revision August 2014 for Organics and OSWER 9355.0-131, EPA-540-R-013-001, Revision August 2014 for Inorganics.
    U ( ) : The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
    UJ : The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
    J* : The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
    R : The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
15. New pumps were installed in MW-5S, MW-7S, MW-19S, and MW-25R in January 2017.
16. # : Data from Initial Assessment Monitoring determined to be invalid due to laboratory issues and are not to be used in statistical evaluation. Resampling was conducted in January 2019 (both filtered and unfiltered). Data from unfiltered analysis from January 2019 is appropriate for statistical evaluation.
17. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT B
GROUNDWATER SAMPLE DATA TO DATE FOR LANDFILL CCR UNIT
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	MCL or SMCL	Established Background (Det. Mon.)	Established GWPS (Ass. Mon.)	Sample ID:	MW-18	MW-18	MW-18	DUP 2	MW-18	MW-18	MW-18	MW-18	MW-18	MW-18	MW-18 (Shallow)	MW-18 (Deep)
				Sample Date:	1-Jun-16	3-Aug-16	30-Sep-16	30-Sep-16	2-Dec-16	31-Jan-17	5-Apr-17	7-Jun-17	10-Aug-17	18-May-18	2-Aug-18	10-Aug-18
Detection Monitoring Parameters				***Units***	BACKGROUND 1	BACKGROUND 2	BACKGROUND 3		BACKGROUND 4	BACKGROUND 5	BACKGROUND 6	BACKGROUND 7	BACKGROUND 8	DETECTION MON. #1	EVALUATION SAMPLE	VERIFICATION SAMPLE
Boron	None	1.896	Not Applicable	mg/L	5.91	6.45	6.88	6.15	6.82	9.71	8.51	6.39	6.51	6.71	4.86	6.65
Calcium	None	670.30	Not Applicable	mg/L	39.7	36.9	34.7	35.8	34.5	34.1	30.5	37.3 J*	28.7	28.1	36.1	31.1
Chloride	250	18.51	Not Applicable	mg/L	6.77	6.71	6.67	6.8	6.02	6.31	5.94	5.54 J*	6.1	5.19	8.04	5.33
Fluoride	4	0.6359	Not Applicable	mg/L	1.15	1.26	1.49	1.6	1.38	1.29	1.43	1.38 J*	1.38	1.37	1.26	1.35
pH (laboratory)	6.5 - 8.5	6.485 - 8.018	Not Applicable	S.U.	10.4	10.3	10	10	10.2	10.3	10.6	10.7	10.7	10.1	7.8	10.2
Sulfate	250	1,820	Not Applicable	mg/L	1430	1800	1320	1320	1300	1090	1170	1200	1070	1120	996	1030
Total Dissolved Solids	500	2,006	Not Applicable	mg/L	2000	1910	1870	1860	1860	1830	1800	1850	1850	1740	1660	1730
Assessment Monitoring Parameters																
Antimony	0.006	Not Applicable	0.006 (MCL)	mg/L	<0.00250	<0.00100	<0.000800	<0.000800	<0.00800	<0.000800	<0.000800	<0.00400	<0.000800	---	---	---
Arsenic	0.010	Not Applicable	0.01 (MCL)	mg/L	0.00331 J	0.00476	0.00296	0.00307	0.00402 J	0.00334	0.00295	<0.00400	0.00329	---	---	---
Barium	2	Not Applicable	2 (MCL)	mg/L	0.00489	0.00472	0.00551	0.00512 J	0.00232 J	0.00526	0.00375	0.00485 J	0.00402	---	---	---
Beryllium	0.004	Not Applicable	0.004 (MCL)	mg/L	<0.00500	<0.00200	<0.000100	<0.000500	<0.00100	<0.000100	<0.000100	<0.000500	<0.000100	---	---	---
Cadmium	0.005	Not Applicable	0.005 (MCL)	mg/L	<0.00200	<0.000800	<0.000100	<0.000100	<0.00100	0.000242 J	0.000123 J	<0.00100	<0.000100	---	---	---
Chromium	0.1	Not Applicable	0.1 (MCL)	mg/L	<0.00250	<0.00100	<0.000500	<0.00250	<0.00500	<0.000500	<0.000500	<0.00500	<0.000500	---	---	---
Cobalt	None	Not Applicable	0.006 (ACL)	mg/L	<0.00250	<0.00100	<0.000100	<0.000100	<0.00100	<0.000100	<0.000100	<0.00100	<0.000100	---	---	---
Fluoride	4	Not Applicable	4 (MCL)	mg/L	1.15	1.26	1.49	1.6	1.38	1.29	1.43	1.38 J*	1.38	1.37	1.26	1.35
Lead	0.015	Not Applicable	0.015 (MCL)	mg/L	<0.000200	<0.000200	<0.000100	<0.000100	<0.00100	<0.000100	<0.000100	<0.000500	<0.000100	---	---	---
Lithium	None	Not Applicable	0.235 (UTL)	mg/L	<0.0100	0.00315 J	<0.00300	<0.0150	<0.0300	0.00305 J	<0.00300	<0.0150	<0.00300	---	0.0144 J	<0.00300
Mercury	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	---	---	---
Molybdenum	None	Not Applicable	0.1 (ACL)	mg/L	0.43	0.433	0.392	0.417	0.434	0.403	0.4	0.442	0.39	---	0.113	0.319
Selenium	0.05	Not Applicable	0.05 (MCL)	mg/L	0.00503 J	0.00399 J	0.00231	0.00317	0.00301 J	0.00268	0.00177 J	<0.00300	0.00278	---	---	---
Thallium	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.000500	<0.00100	<0.000800	<0.000800	<0.00800	<0.000800	<0.000800	<0.00400	<0.000800	---	---	---
Ra-226 + Ra-228 (combined)	5	Not Applicable	5 (MCL)	pCi/L	0.201 +/- 0.213 U	0.206 +/- 0.318 U	0.449 +/- 0.289	0.550 +/- 0.308	0.201 +/- 0.260 U	0.00496 +/- 0.256 U	0.282 +/- 0.201 U	0.146 +/- 0.228 U	0.445 +/- 0.200	---	---	---
Other Parameters																
Chemical Oxygen Demand (COD)	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	52.6	---	---	---
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<5.00	---	---	---
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	25.3	---	---	---
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<0.220	---	---	---
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate as N	10	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Potassium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	22	---	---	---
Sodium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	523	---	---	---
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	---	---	---	---	---	---	---	---	---	---	---	---
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																
Temperature	None	Not Applicable	Not Applicable	°C	19.74	24.14	19.59	---	18.78	18.45	18.46	22.5	22.11	21.12	24.1	22.37
pH	6.5 - 8.5	Not Applicable	Not Applicable	S.U.	10.88	10.45	10.95	---	10.88	10.67	10.6	10.55	10.54	10.74	9.71	10.41
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	2622	2884	2900	---	2854	2764	2698	2685	2716	2530	2568	2658
Dissolved Oxygen	None	Not Applicable	Not Applicable	mg/L	2.65	0.15	0.05	---	0.2	0.21	0.09	0.06	0.03	0.17	4.03	0.9
Oxidation-Reduction Potential	None	Not Applicable	Not Applicable	mV	-22.2	-41.7	-100	---	-225.5	-192.6	62.6	-11	28.2	-139.8	-65.1	-119.7
Turbidity	None	Not Applicable	Not Applicable	NTU	0.33	0.61	0.33	---	0.15	0.39	0.36	1.03	1.21	0.22	0.02	0.02

Notes:

1. MCL : Maximum Contaminant Level: Values obtained from EPA Primary/Secondary Drinking Water Standards.
   The MCL value for lead is the EPA's Action Level.
2. mg/L : milligrams per liter.
3. pCi/L : picoCuries per liter.
4. S.U. : Standard Units.
5. °C : degrees Celsius.
6. µmhos/cm : micromhos per centimeter.
7. mV : millivolts.
8. NTU : Nephelometric Turbidity Unit.
9. < : Analyte not detected at the laboratory method detection limit (MDL).
10. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
11. Cells shaded in blue indicate results that are above the laboratory MDL.
12. The sulfate value for sample MW-25R collected June 9, 2017 was originally reported by the laboratory as 331 mg/L. The laboratory reprepared and analyzed the sample. The value for sulfate on this table is the result of the reanalysis.
13. --- : no analysis performed.
14. Data validation based on USEPA "National Functional Guidelines", OSWER 9355.0-132, EPA-540-R-014-002, Revision August 2014 for Organics and OSWER 9355.0-131, EPA-540-R-013-001, Revision August 2014 for Inorganics.
    U ( ) : The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
    UJ : The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
    J* : The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
    R : The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
15. New pumps were installed in MW-5S, MW-7S, MW-19S, and MW-25R in January 2017.
16. # : Data from Initial Assessment Monitoring determined to be invalid due to laboratory issues and are not to be used in statistical evaluation. Resampling was conducted in January 2019 (both filtered and unfiltered). Data from unfiltered analysis from January 2019 is appropriate for statistical evaluation.
17. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT B
GROUNDWATER SAMPLE DATA TO DATE FOR LANDFILL CCR UNIT
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	MCL or SMCL	Established Background (Det. Mon.)	Established GWPS (Ass. Mon.)	Sample ID:	MW-18	MW-18		MW-18	MW-18	MW-18	MW-18	MW-18	MW-18	MW-18	DUP 3	MW-18	MW-18
				Sample Date:	3-Oct-18	14-Jan-19		25-Apr-19	1-Oct-19	17-Jun-20	12-Oct-20	31-Mar-21	14-Oct-21	31-Mar-22	31-Mar-22	Jun-22	Oct-22
Detection Monitoring Parameters				***Units***	INITIAL ASSESSMENT MON.	INITIAL ASSESSMENT MON. (RESAMPLE) UNFILTERED	FILTERED	FIRST 2019 ASSESSMENT MON.	SECOND 2019 ASSESSMENT MON.	FIRST 2020 ASSESSMENT MON.	SECOND 2020 ASSESSMENT MON.	FIRST 2021 ASSESSMENT MON.	SECOND 2021 ASSESSMENT MON.	FIRST 2022 ASSESSMENT MON.		FIRST 2022 ASSESSMENT MON. (RESAMPLE)	SECOND 2022 ASSESSMENT MON.
Boron	None	1.896	Not Applicable	mg/L	5.77 #	6.89	7.17	6.05	5.29	5.49	5.43	4.32	4.61	4.65	5.06	---	5.2
Calcium	None	670.30	Not Applicable	mg/L	25.1 #	31.8	30.8	33.1	25.6	21.6	20	19.3	19.3	23.9	25.3	---	17.7
Chloride	250	18.51	Not Applicable	mg/L	5.5 #	5.59	5.14	4.79	5.07	4.06	4.22	4.2	4.39	4.86	4.60	---	3.88
Fluoride	4	0.6359	Not Applicable	mg/L	1.37 #	1.32	1.44	1.25	1.47	1.28	1.66	1.71	1.90	2.10	1.92	---	1.84
pH (laboratory)	6.5 - 8.5	6.485 - 8.018	Not Applicable	S.U.	9.8 #	10.4	---	10.2	10.3	9.35	10.2	10.5	9.95	9.69	9.30	---	10.2
Sulfate	250	1,820	Not Applicable	mg/L	1090 #	1110	1120	933	1020	888	794	904	896	837	842	---	804
Total Dissolved Solids	500	2,006	Not Applicable	mg/L	1760 #	1630	1660	1680	1550	1340	1270	1260	1320	1,300	1,310	---	1250
Assessment Monitoring Parameters																	
Antimony	0.006	Not Applicable	0.006 (MCL)	mg/L	<0.0008 #	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	---	0.000555 J
Arsenic	0.010	Not Applicable	0.01 (MCL)	mg/L	0.00319 #	0.0032	0.00325	0.00308	0.00264	0.00272	0.00276	0.00238	0.00299	0.00290	0.00302	---	0.00315
Barium	2	Not Applicable	2 (MCL)	mg/L	0.00374 #	0.00393 J	0.00407	0.00401	0.00327 J	0.00294 J	0.00288 J	0.00305 J	0.00283 J	0.00305 J	0.00332 J	---	0.00269 J
Beryllium	0.004	Not Applicable	0.004 (MCL)	mg/L	<0.0001 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Cadmium	0.005	Not Applicable	0.005 (MCL)	mg/L	<0.0001 #	0.000374 J	0.000431 J	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	0.000298 J	0.000202 J	0.000207 J	---	<0.000200
Chromium	0.1	Not Applicable	0.1 (MCL)	mg/L	0.000512 J #	<0.00040	<0.00040	0.000477 J	<0.000400	<0.000400	<0.000400	<0.000400	0.000968 J	<0.000400	0.000495 J	---	<0.000400
Cobalt	None	Not Applicable	0.006 (ACL)	mg/L	<0.0001 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Fluoride	4	Not Applicable	4 (MCL)	mg/L	1.37 #	1.32	1.44	1.25	1.47	1.28	1.66	1.71	1.90	2.10	1.92	---	1.84
Lead	0.015	Not Applicable	0.015 (MCL)	mg/L	<0.0001 #	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	---	<0.000600
Lithium	None	Not Applicable	0.235 (UTL)	mg/L	0.0105 J #	0.00290 J	0.00258 J	0.00173 J	0.00372 J	0.00226 J	0.00276 J	0.00339 J	0.00301 J	0.00329 J	0.00347 J	---	0.00257 J
Mercury	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.000100 #	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	0.0000500 J	0.000247	<0.0000300	<0.0000300	---	<0.0000300
Molybdenum	None	Not Applicable	0.1 (ACL)	mg/L	0.33 #	0.333	0.332	0.342	0.257	0.194	0.18	0.195	0.209	0.206	0.222	---	0.183
Selenium	0.05	Not Applicable	0.05 (MCL)	mg/L	0.0019 J #	0.00506	0.00501	0.00577	0.00166 J	0.0037	0.00347	0.00234	0.00137 J	0.00247	0.00157 J	---	0.00208
Thallium	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.0008 #	0.000323 J	0.000563 J	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Ra-226 + Ra-228 (combined)	5	Not Applicable	5 (MCL)	pCi/L	0.387 +/- 0.253 U #	<0.77	---	<0.77	<0.71	<0.74	<0.71	<0.88	1.05	<0.79	<0.8	---	2.01
Other Parameters																	
Chemical Oxygen Demand (COD)	None	Not Applicable	Not Applicable	mg/L	8.9 J #	<5	---	<5.00	11.0 J	---	5.00 J	<5.00	9.00 J	5.00 J	5.00 J	---	6.00 J
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	71	69.9	65.5	73.8	63.6	89.1	---	61.6
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	42.2	---	---	---	60.6	64.3	46.8	55.8	58.6	64.7	---	56.5
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	<5	---	---	---	<5	<5	<5	<5.00	<5	24.4	---	<5
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	32.9	---	---	---	10.4	5.63	18.7	17.9	<5	<5	---	5.06
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<0.0120	<0.0120	<0.0120	<0.0120	<0.0120	<0.0120	---	<0.0120
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<0.0120	<0.0120	<0.0120	<0.0120	<0.0120	<0.0120	---	<0.0120
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.02(J)	<0.020	<0.02	<0.0200	<0.0200	<0.02	---	<0.0200
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<0.02	<0.0200 H	<0.02	<0.02	---	<0.0200
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<0.02	<0.0200	<0.02	<0.02	---	<0.0200
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<0.02	<0.0200	<0.02	<0.02	---	<0.0200
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	0.244	0.175 J	---	---	0.141(J)	0.27	0.426	0.152 J	0.559	0.587	---	0.181
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.18	0.166	0.215	0.211	0.199	0.203	---	0.172
Nitrate as N	10	Not Applicable	Not Applicable	mg/L	0.053 J #	0.075 J	<0.03	<0.150	<0.0300	<0.0600	<0.0300	<0.0300	0.0606 J	0.712	0.146 J	---	0.0851 J
Potassium	None	Not Applicable	Not Applicable	mg/L	---	22.3	21.9	---	---	15.9	14.6	13.6	15.0	14.6	15.3	---	14.5
Sodium	None	Not Applicable	Not Applicable	mg/L	---	603	510	---	---	376	348	324	329	391	406	---	381
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	2590 #	2520	---	---	---	---	2200	2090	2040	2,070	2,080	---	2090
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<1	<1	<1	<1.00	<1	<1	---	<1
Field Parameters																	
Temperature	None	Not Applicable	Not Applicable	°C	23.6	14	---	17.89	24.8	22.45	23.5	17	20.7	17.6	---	---	26
pH	6.5 - 8.5	Not Applicable	Not Applicable	S.U.	10.45	10.47	---	10.93	10.4	10.65	10.4	10.39	10.46	9.97	---	---	9.96
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	2632	2442	---	2486	2350	1998	1986	1999	2,041	1,962	---	---	1976
Dissolved Oxygen	None	Not Applicable	Not Applicable	mg/L	0.21	0.36	---	1.44	0.33	0.55	0.24	0.39	0.36	0.40	---	---	0.51
Oxidation-Reduction Potential	None	Not Applicable	Not Applicable	mV	130.1	174.9	---	-152.8	-71.2	-140.3	-80.5	-49.7	-9.7	-0.8	---	---	-72.2
Turbidity	None	Not Applicable	Not Applicable	NTU	2.04	2.79	1.47	0.49	0.92	2.43	0.34	1	1.99	2.53	---	---	2.26

Notes:

1. MCL : Maximum Contaminant Level: Values obtained from EPA Primary/Secondary Drinking Water Standards.
   The MCL value for lead is the EPA's Action Level.
2. mg/L : milligrams per liter.
3. pCi/L : picoCuries per liter.
4. S.U. : Standard Units.
5. °C : degrees Celsius.
6. µmhos/cm : micromhos per centimeter.
7. mV : millivolts.
8. NTU : Nephelometric Turbidity Unit.
9. < : Analyte not detected at the laboratory method detection limit (MDL).
10. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
11. Cells shaded in blue indicate results that are above the laboratory MDL.
12. The sulfate value for sample MW-25R collected June 9, 2017 was originally reported by the laboratory as 331 mg/L. The laboratory reprepared and analyzed the sample. The value for sulfate on this table is the result of the reanalysis.
13. --- : no analysis performed.
14. Data validation based on USEPA "National Functional Guidelines", OSWER 9355.0-132, EPA-540-R-014-002, Revision August 2014 for Organics and OSWER 9355.0-131, EPA-540-R-013-001, Revision August 2014 for Inorganics.
    U ( ) : The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
    UJ : The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
    J* : The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
    R : The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
15. New pumps were installed in MW-5S, MW-7S, MW-19S, and MW-25R in January 2017.
16. # : Data from Initial Assessment Monitoring determined to be invalid due to laboratory issues and are not to be used in statistical evaluation. Resampling was conducted in January 2019 (both filtered and unfiltered). Data from unfiltered analysis from January 2019 is appropriate for statistical evaluation.
17. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT B
GROUNDWATER SAMPLE DATA TO DATE FOR LANDFILL CCR UNIT
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	MCL or SMCL	Established Background (Det. Mon.)	Established GWPS (Ass. Mon.)	Sample ID:	MW-19S	MW-19S	DUP-1	MW-19S	MW-19S	MW-19S	MW-19S	MW-19S	MW-19S	MW-19S	DUP 1	MW-19S (Shallow)	MW-19S (Deep)
				Sample Date:	13-Dec-16	26-Jan-17	26-Jan-17	3-Feb-17	28-Mar-17	7-Apr-17	31-May-17	9-Jun-17	10-Aug-17	18-May-18	18-May-18	2-Aug-18	10-Aug-18
					BACKGROUND 1	BACKGROUND 2		BACKGROUND 3	BACKGROUND 4	BACKGROUND 5	BACKGROUND 6	BACKGROUND 7	BACKGROUND 8	DETECTION MON. #1		EVALUATION SAMPLE	VERIFICATION SAMPLE
Detection Monitoring Parameters				***Units***													
Boron	None	1.896	Not Applicable	mg/L	8.02	10.8	9.33	7.83	7.81	8.16	8.31	9.17	7.64	8.43	8.36	8.64	3.78
Calcium	None	670.30	Not Applicable	mg/L	71.7	47.2	43.8	51.8	51.9	72.5	51.3	71.5	41.3	45.7	44	35	24.8
Chloride	250	18.51	Not Applicable	mg/L	16.1	17.6	17.3	15.8	16.1	17.8	14.3	15.2	15.7	14.5	14.6	15.1	14.9
Fluoride	4	0.6359	Not Applicable	mg/L	1.44 J*	1.51	1.44	1.3	1.32	1.1	1.23	1.23	1.32	1.3	1.3	1.34	1.3
pH (laboratory)	6.5 - 8.5	6.485 - 8.018	Not Applicable	S.U.	10.4	11	10.9	10.7	10.8	10.7	10.9	10.8	10.8	10.5	10.4	9.7	10.5
Sulfate	250	1,708	Not Applicable	mg/L	1620	1620	1600	1530	1550	1560	1450	1510	1650	1630	1610	1520	1480
Total Dissolved Solids	500	2,505	Not Applicable	mg/L	2420	2420	2530	2460	2460	2340	2420	2410	2440	2560	2480	2390	2440
Assessment Monitoring Parameters																	
Antimony	0.006	Not Applicable	0.006 (MCL)	mg/L	<0.00400	<0.000800	<0.000800	<0.000800	<0.000800	<0.00400	<0.000800	<0.00400	<0.000800	---	---	---	---
Arsenic	0.010	Not Applicable	0.01 (MCL)	mg/L	0.00920 J	0.0073	0.00683	0.00728 J	0.0073	0.00837 J	0.00702	0.00681 J	0.00756	---	---	---	---
Barium	2	Not Applicable	2 (MCL)	mg/L	0.0538	0.0192	0.0195	0.0215	0.0189	0.0249	0.0186	0.0233	0.0211	---	---	---	---
Beryllium	0.004	Not Applicable	0.004 (MCL)	mg/L	<0.000500	<0.000100	<0.000100	<0.000100	<0.000100	<0.000500	<0.000100	<0.000500	<0.000100	---	---	---	---
Cadmium	0.005	Not Applicable	0.005 (MCL)	mg/L	<0.000500	<0.000100	<0.000100	<0.000100	0.000196 J	<0.000500	<0.000100	<0.000500	<0.000100	---	---	---	---
Chromium	0.1	Not Applicable	0.1 (MCL)	mg/L	<0.00250	<0.000500	<0.000500	U (0.00108)	<0.000500	<0.00250	<0.000500	<0.00250	<0.000500	---	---	---	---
Cobalt	None	Not Applicable	0.006 (ACL)	mg/L	0.000568 J	<0.000100	<0.000100	0.000237 J	0.000103 J	<0.000500	<0.000100	0.000872 J	<0.000100	---	---	---	---
Fluoride	4	Not Applicable	4 (MCL)	mg/L	1.44 J*	1.51	1.44	1.3	1.32	1.1	1.23	1.23	1.32	1.3	1.3	1.34	1.3
Lead	0.015	Not Applicable	0.015 (MCL)	mg/L	0.000621 J	<0.000100	<0.000100	0.000589 J	<0.000100	<0.000500	<0.000100	<0.000500	0.000114 J	---	---	---	---
Lithium	None	Not Applicable	0.235 (UTL)	mg/L	<0.0150	<0.00300	<0.00300	<0.00300	<0.00300	<0.0150	<0.00300	<0.0150	<0.00300	---	---	<0.00300	<0.00300
Mercury	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.000150	<0.000150	<0.000150	<0.000150	0.000100 UJ	<0.000150	<0.000150	<0.000150	<0.000150	---	---	---	---
Molybdenum	None	Not Applicable	0.1 (ACL)	mg/L	0.466	0.484	0.483	0.435	0.481	0.586	0.495	0.607	0.469	---	---	0.384	0.112
Selenium	0.05	Not Applicable	0.05 (MCL)	mg/L	0.00616 J	0.0107	0.0105	0.00888 J	0.0116	0.0131	0.00879	0.0152	0.00349	---	---	---	---
Thallium	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.00400	<0.000800	<0.000800	<0.000800	<0.000800	<0.00400	<0.000800	<0.00400	<0.000800	---	---	---	---
Ra-226 + Ra-228 (combined)	5	Not Applicable	5 (MCL)	pCi/L	1.47 +/- 0.739	-0.0377 +/- 0.325 U	0.0518 +/- 0.264 U	0.483 +/- 0.372 U	0.287 +/- 0.277 U	0.121 +/- 0.235 U	0.136 +/- 0.226 U	0.202 +/- 0.190 U	0.296 +/- 0.222 U	---	---	---	---
Other Parameters																	
Chemical Oxygen Demand (COD)	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	85.8	---	---	---	---
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<5.00	---	---	---	---
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	46.2	---	---	---	---
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<0.220	---	---	---	---
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate as N	10	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Potassium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	35.9	---	---	---	---
Sodium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	697	---	---	---	---
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	---	---	---	---	---	---	---	---	---	---	---	---	---
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																	
Temperature	None	Not Applicable	Not Applicable	ºC	17.71	15.41	---	15.44	18.96	18.56	21.58	20.76	24.37	20.38	---	26.67	24.71
pH	6.5 - 8.5	Not Applicable	Not Applicable	S.U.	11.14	11.16	---	11.16	11.09	11.08	10.8	10.95	10.72	11.09	---	10.55	10.56
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	3576	3585	---	3389	3602	3575	3546	3526	3552	3530	---	3587	3563
Dissolved Oxygen	None	Not Applicable	Not Applicable	mg/L	0.37	0.26	---	0.18	0.22	0.18	0.02	0.02	0.02	0.24	---	4.64	1.32
Oxidation-Reduction Potential	None	Not Applicable	Not Applicable	mV	-347.7	-310.2	---	-267.7	-299.3	-270.6	-235.7	-125.3	-215.4	-312.1	---	-227.4	-249
Turbidity	None	Not Applicable	Not Applicable	NTU	103	1.1	---	0.32	0.34	0.4	0.62	0.43	1.26	0.47	---	0.02	4.16

Notes:

1. MCL : Maximum Contaminant Level: Values obtained from EPA Primary/Secondary Drinking Water Standards.
   The MCL value for lead is the EPA's Action Level.
2. mg/L : milligrams per liter.
3. pCi/L : picoCuries per liter.
4. S.U. : Standard Units.
5. ºC : degrees Celsius.
6. µmhos/cm : micromhos per centimeter.
7. mV : millivolts.
8. NTU : Nephelometric Turbidity Unit.
9. < : Analyte not detected at the laboratory method detection limit (MDL).
10. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
11. Cells shaded in blue indicate results that are above the laboratory MDL.
12. The sulfate value for sample MW-25R collected June 9, 2017 was originally reported by the laboratory as 331 mg/L. The laboratory reprepared and analyzed the sample. The value for sulfate on this table is the result of the reanalysis.
13. --- : no analysis performed.
14. Data validation based on USEPA "National Functional Guidelines", OSWER 9355.0-132, EPA-540-R-014-002, Revision August 2014 for Organics and OSWER 9355.0-131, EPA-540-R-013-001, Revision August 2014 for Inorganics.
    U ( ) : The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
    UJ : The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
    J* : The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
    R : The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
15. New pumps were installed in MW-5S, MW-7S, MW-19S, and MW-25R in January 2017.
16. # : Data from Initial Assessment Monitoring determined to be invalid due to laboratory issues and are not to be used in statistical evaluation. Resampling was conducted in January 2019 (both filtered and unfiltered). Data from unfiltered analysis from January 2019 is appropriate for statistical evaluation.
17. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT B
GROUNDWATER SAMPLE DATA TO DATE FOR LANDFILL CCR UNIT
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	MCL or SMCL	Established Background (Det. Mon.)	Established GWPS (Ass. Mon.)	Sample ID:	MW-19S	MW-19S		MW-19S	MW-19S	MW-19S	DUP 2	MW-19S	MW-19S	DUP 3	MW-19S	MW-19S		MW-19S
				Sample Date:	3-Oct-18	15-Jan-19		25-Apr-19	1-Oct-19	17-Jun-20		12-Oct-20	31-Mar-21		15-Oct-21	1-Apr-22	Jun-22	Oct-22
Detection Monitoring Parameters				***Units***	INITIAL ASSESSMENT MON.	INITIAL ASSESSMENT MON. (RESAMPLE) UNFILTERED	FILTERED	FIRST 2019 ASSESSMENT MON.	SECOND 2019 ASSESSMENT MON.	FIRST 2020 ASSESSMENT MON.		SECOND 2020 ASSESSMENT MON.	FIRST 2021 ASSESSMENT MON.		SECOND 2021 ASSESSMENT MON.	FIRST 2022 ASSESSMENT MON.	FIRST 2022 ASSESSMENT MON. (RESAMPLE)	SECOND 2022 ASSESSMENT MON.
Boron	None	1.896	Not Applicable	mg/L	10.2 #	9.79	9.07	8.57	6.64	6.8	7.18	6.88	6.86	8.41	5..88	9.73	---	8.43
Calcium	None	670.30	Not Applicable	mg/L	35.3 #	50	49.6	52.4	40.4	43.6	42.1	40.7	42.3	35.3	41.6	44.2	---	40.7
Chloride	250	18.51	Not Applicable	mg/L	14.8 #	14.2	14.1	13.7	14.4	13.8	14	14.1	13.7	14	13.6	14.6	---	13.3
Fluoride	4	0.6359	Not Applicable	mg/L	1.24 #	1.27	1.59	1.13	1.37	1.15	1.04	1.38	1.46	1.54	1.57	1.66	---	1.59
pH (laboratory)	6.5 - 8.5	6.485 - 8.018	Not Applicable	S.U.	9.9 #	10.4	---	10.5	10.6	10.2	9.88	10.9	10.8	10.6	10.8	10.8	---	10.8
Sulfate	250	1,708	Not Applicable	mg/L	1950 #	1640	1580	1520	1580	1490	1590	1640	1560	1560	1570	1,420	---	1480
Total Dissolved Solids	500	2,505	Not Applicable	mg/L	2490 #	2500	2470	2440	2460	2300	2290	2340	2360	2310	2290	2,180	---	2210
Assessment Monitoring Parameters																		
Antimony	0.006	Not Applicable	0.006 (MCL)	mg/L	<0.0008 #	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	---	<0.000400
Arsenic	0.010	Not Applicable	0.01 (MCL)	mg/L	<0.008 #	0.00634	0.00643	0.00673	0.00624	0.0061	0.00577	0.00588	0.00554	0.00452	0.00689	0.00689	---	0.0072
Barium	2	Not Applicable	2 (MCL)	mg/L	0.0106 J #	0.0216	0.0201	0.0197	0.0164	0.0221	0.0177	0.0162	0.0176	0.0152	0.0166	0.0189	---	0.0164
Beryllium	0.004	Not Applicable	0.004 (MCL)	mg/L	<0.002 #	<0.00100	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Cadmium	0.005	Not Applicable	0.005 (MCL)	mg/L	0.000133 J #	0.000386 J	0.000429 J	0.000219 J	0.000222 J	0.000387 J	0.000328 J	<0.000200	0.000238 J	<0.000200	0.000502 J	0.000380 J	---	<0.000200
Chromium	0.1	Not Applicable	0.1 (MCL)	mg/L	<0.01 #	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	0.000930 J	0.000829 J	---	<0.000400
Cobalt	None	Not Applicable	0.006 (ACL)	mg/L	0.000102 J #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	0.000234 J	---	<0.000200
Fluoride	4	Not Applicable	4 (MCL)	mg/L	1.24 #	1.27	1.59	1.13	1.37	1.15	1.04	1.38	1.46	1.54	1.57	1.66	---	1.59
Lead	0.015	Not Applicable	0.015 (MCL)	mg/L	0.000116 J #	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	---	<0.000600
Lithium	None	Not Applicable	0.235 (UTL)	mg/L	<0.06 #	0.00148 J	0.00128 J	0.00192 J	0.00169 J	0.00134 J	0.00114 J	0.00102 J	0.00121 J	0.00144 J	0.00150 J	0.00249 J	---	0.00111 J
Mercury	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.000150 #	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	0.0000450 J	0.0000460 J	0.000113 J	<0.0000300	---	<0.0000300
Molybdenum	None	Not Applicable	0.1 (ACL)	mg/L	0.439 #	0.472	0.463	0.462	0.377	0.402	0.394	0.367	0.398	0.351	0.407	0.445	---	0.43
Selenium	0.05	Not Applicable	0.05 (MCL)	mg/L	0.00889 #	0.011	0.00631	0.0141	0.0124	0.00655	0.0064	0.0113	0.00857	0.00743	0.0113	0.0127	---	0.00944
Thallium	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.0008 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Ra-226 + Ra-228 (combined)	5	Not Applicable	5 (MCL)	pCi/L	0.933 +/- 0.391 #	<0.98	---	<0.79	<0.74	<0.73	<0.72	<0.73	<0.87	<0.82	<0.84	<0.82	---	1.82
Other Parameters																		
Chemical Oxygen Demand (COD)	None	Not Applicable	Not Applicable	mg/L	26.2	25	---	21	23	---	---	19	16	14.0 J	21.0	21.0	---	18
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	128	130	132	135	133	150	136	---	130
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	59.8	---	---	---	92.6	98.7	89.2	63.8	69	77.3	53.6	---	61
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	<5	---	---	---	<5	<5	<5	<5	<5	<5.00	<5	---	<5
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	81.2	---	---	---	35.1	31.4	42.6	71.6	64.4	73.0	82.4	---	68.7
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.0153(J)	<0.0120	<0.0120	<0.012	<0.012	0.0509 J	0.0554 J	---	<0.0120
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<0.0120	<0.0120	<0.0120	<0.012	<0.012	0.0210 J	<0.0120	---	<0.0120
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.043(J)	0.330(J)	0.0310 J	<0.02	<0.02	0.0450 J	0.03 J	---	0.0230 J
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<0.02	<0.02	<0.0200 H	0.029 J	---	<0.02
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<0.02	<0.02	<0.0200	0.0254 J	---	<0.02
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<0.02	<0.02	0.0210 J	<0.02	---	<0.02
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	0.121 J	0.0852 J	---	---	0.0553(J)	0.0510(J)	0.0346 J	0.0773 J	0.0681 J	0.0415 J	0.0836 J	---	0.0228 J
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.373	0.383	0.37	0.457	0.398	0.440	0.406	---	0.413
Nitrate as N	10	Not Applicable	Not Applicable	mg/L	<0.049 #	<0.03	0.117	<0.150	<0.0300	<0.0600	<0.0600	<0.150	<0.0600	<0.0600	<0.0600	0.102 J	---	<0.0300
Potassium	None	Not Applicable	Not Applicable	mg/L	---	38.2	37.7	---	---	35.2	34.1	33.7	33.9	29	34.6	37	---	37.7
Sodium	None	Not Applicable	Not Applicable	mg/L	---	801	774	---	---	644	598	610	639	545	462	723	---	752
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	2470 #	3530	---	---	---	---	---	3860	3500	3540	3370	3,570	---	3570
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	1.52	<1	1.8	<1	<1	<1.00	<1	---	<1
Field Parameters																		
Temperature	None	Not Applicable	Not Applicable	ºC	25.4	13.4	---	17.92	25.86	22.99	---	23.8	18.3	---	21.8	17.2	---	23.5
pH	6.5 - 8.5	Not Applicable	Not Applicable	S.U.	10.63	11.01	---	11.26	10.65	10.97	---	10.92	11.09	---	10.84	10.94	---	10.54
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	3610	3438	---	3524	3552	3309	---	3433	3406	---	3,342	3,309	---	3277
Dissolved Oxygen	None	Not Applicable	Not Applicable	mg/L	0.33	0.21	---	1.5	0.5	0.36	---	0.16	0.27	---	0.21	0.27	---	0.32
Oxidation-Reduction Potential	None	Not Applicable	Not Applicable	mV	172.1	-162	---	-281.7	-252.4	-588.1	---	209.2	-191.7	---	-237.2	-244.4	---	-249.1
Turbidity	None	Not Applicable	Not Applicable	NTU	2.05	5.19	2.24	0.57	0.61	2.86	---	1.24	0.73	---	2.77	2.22	---	1.82

Notes:

1. MCL : Maximum Contaminant Level: Values obtained from EPA Primary/Secondary Drinking Water Standards.
   The MCL value for lead is the EPA's Action Level.
2. mg/L : milligrams per liter.
3. pCi/L : picoCuries per liter.
4. S.U. : Standard Units.
5. ºC : degrees Celsius.
6. µmhos/cm : micromhos per centimeter.
7. mV : millivolts.
8. NTU : Nephelometric Turbidity Unit.
9. < : Analyte not detected at the laboratory method detection limit (MDL).
10. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
11. Cells shaded in blue indicate results that are above the laboratory MDL.
12. The sulfate value for sample MW-25R collected June 9, 2017 was originally reported by the laboratory as 331 mg/L. The laboratory reprepared and analyzed the sample. The value for sulfate on this table is the result of the reanalysis.
13. --- : no analysis performed.
14. Data validation based on USEPA "National Functional Guidelines", OSWER 9355.0-132, EPA-540-R-014-002, Revision August 2014 for Organics and OSWER 9355.0-131, EPA-540-R-013-001, Revision August 2014 for Inorganics.
    U ( ) : The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
    UJ : The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
    J* : The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
    R : The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
15. New pumps were installed in MW-5S, MW-7S, MW-19S, and MW-25R in January 2017.
16. # : Data from Initial Assessment Monitoring determined to be invalid due to laboratory issues and are not to be used in statistical evaluation. Resampling was conducted in January 2019 (both filtered and unfiltered). Data from unfiltered analysis from January 2019 is appropriate for statistical evaluation.
17. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT B
GROUNDWATER SAMPLE DATA TO DATE FOR LANDFILL CCR UNIT
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	MCL or SMCL	Established Background (Det. Mon.)	Established GWPS (Ass. Mon.)	Sample ID: / Sample Date:	MW-20 31-May-16	MW-20 23-Aug-16	MW-20 29-Sep-16	DUP 1 29-Sep-16	MW-20 2-Dec-16	MW-20 31-Jan-17	MW-20 5-Apr-17	MW-20 7-Jun-17	MW-20 9-Aug-17	MW-20 21-May-18	MW-20 (Deep) 1-Aug-18
					BACKGROUND 1	BACKGROUND 2	BACKGROUND 3		BACKGROUND 4	BACKGROUND 5	BACKGROUND 6	BACKGROUND 7	BACKGROUND 8	DETECTION MON. #1	VERIFICATION SAMPLE
Detection Monitoring Parameters				***Units***											
Boron	None	1.896	Not Applicable	mg/L	0.704	1.11	1.06	0.945	1.02	1	0.58	0.784	0.643	0.813	1.2
Calcium	None	670.30	Not Applicable	mg/L	434	563	416	391	451	528	583	611 J*	382	355	552
Chloride	250	18.51	Not Applicable	mg/L	5.99 J*	5.79	4.85	4.8	4.44	5.4	6.77	6.00 J*	5.08	6.14	4.96
Fluoride	4	0.6359	Not Applicable	mg/L	0.322 J*	0.41	0.424	0.416	0.397	0.362	0.248	0.340 J*	0.349	0.323	0.309
pH (laboratory)	6.5 - 8.5	6.485 - 8.018	Not Applicable	S.U.	6.94	7.6	7.4	7.3	7.3	7	6.8	6.7	6.7	6.8	6.9
Sulfate	250	1,363	Not Applicable	mg/L	1140	1110	1100	1110	1290	949	907	1020	1180	839	1060
Total Dissolved Solids	500	2,066	Not Applicable	mg/L	1710	1980	1860	1810	1980	1870	1750	1770	1760	1760	1980
Assessment Monitoring Parameters															
Antimony	0.006	Not Applicable	0.006 (MCL)	mg/L	<0.000500	<0.000800	<0.000800	<0.000800	<0.00800	<0.000800	<0.000800	<0.00400	<0.000800	---	---
Arsenic	0.010	Not Applicable	0.01 (MCL)	mg/L	0.00222	0.00101 J	0.00198 J	0.00199 J	<0.00400	0.000732 J	0.00174 J	<0.00400	0.000598 J	---	---
Barium	2	Not Applicable	2 (MCL)	mg/L	0.0136	0.0151	0.0116	0.0109	0.0100 J	0.0122	0.0108	0.0128	0.00216	---	---
Beryllium	0.004	Not Applicable	0.004 (MCL)	mg/L	<0.00100	<0.000100	<0.000100	<0.000100	<0.00100	<0.000100	<0.000100	<0.000500	<0.000100	---	---
Cadmium	0.005	Not Applicable	0.005 (MCL)	mg/L	<0.000400	<0.000100	<0.000100	<0.000100	<0.00100	<0.000100	<0.000100	<0.00100	<0.000100	---	---
Chromium	0.1	Not Applicable	0.1 (MCL)	mg/L	<0.000500	<0.000500	<0.000500	<0.000500	<0.00500	<0.000500	<0.000500	<0.00500	<0.00250	---	---
Cobalt	None	Not Applicable	0.006 (ACL)	mg/L	<0.000500	0.000327 J	0.000383 J	0.000366 J	<0.00100	0.000642 J	0.000215 J	<0.00100	<0.000500	---	---
Fluoride	4	Not Applicable	4 (MCL)	mg/L	0.322 J*	0.41	0.424	0.416	0.397	0.362	0.248	0.340 J*	0.349	0.323	0.309
Lead	0.015	Not Applicable	0.015 (MCL)	mg/L	<0.000200	<0.000100	<0.000100	<0.000100	<0.00100	<0.000100	<0.000100	<0.000500	<0.000500	---	---
Lithium	None	Not Applicable	0.235 (UTL)	mg/L	0.123	0.117	0.124	0.114	0.126 J	0.12	0.0962	0.112 J	0.110 J	---	0.109
Mercury	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000100	---	---
Molybdenum	None	Not Applicable	0.1 (ACL)	mg/L	0.00120 J	0.00121 J	<0.00500	0.00126 J	<0.0100	<0.00100	<0.00100	<0.0100	<0.00500	---	<0.00100
Selenium	0.05	Not Applicable	0.05 (MCL)	mg/L	<0.000600	<0.000300	<0.000300	<0.000300	<0.00300	0.000633 J	<0.000300	<0.00300	<0.00150	---	---
Thallium	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.000500	<0.000800	<0.000800	<0.000800	<0.00800	<0.000800	<0.000800	<0.00400	<0.00400	---	---
Ra-226 + Ra-228 (combined)	5	Not Applicable	5 (MCL)	pCi/L	1.04 +/- 0.357	1.61 +/- 0.395	1.10 +/- 0.359	1.66 +/- 0.377	1.46 +/- 0.421	0.863 +/- 0.381	1.29 +/- 0.322	0.969 +/- 0.294	0.670 +/- 0.261	---	---
Other Parameters															
Chemical Oxygen Demand (COD)	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<5.00	---	---
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	259	---	---
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<5.00	---	---
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	20.9	---	---
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---
Nitrate as N	10	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---
Potassium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	5.54	---	---
Sodium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	86.1	---	---
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	---	---	---	---	---	---	---	---	---	---	---
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---
Field Parameters															
Temperature	None	Not Applicable	Not Applicable	°C	21.43	21.4	18.92	---	17.06	19.18	18.75	20.84	21.17	20.26	21.05
pH	6.5 - 8.5	Not Applicable	Not Applicable	S.U.	6.85	6.94	6.79	---	6.75	6.76	6.67	6.69	6.62	6.89	6.51
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	1742	2245	2332	---	2364	2259	2057	2088	2083	1999	2345
Dissolved Oxygen	None	Not Applicable	Not Applicable	mg/L	0.47	1.76	0.05	---	0.25	0.21	0.35	0.07	0.1	0.27	1.43
Oxidation-Reduction Potential	None	Not Applicable	Not Applicable	mV	-4.6	935	-101	---	-211.5	-167.1	60.7	-7.7	62.1	-57	54.1
Turbidity	None	Not Applicable	Not Applicable	NTU	1.2	2.96	3.23	---	2.55	1.85	0.38	1.01	1.82	1.95	4.38

Notes:

1. MCL : Maximum Contaminant Level: Values obtained from EPA Primary/Secondary Drinking Water Standards.
   The MCL value for lead is the EPA's Action Level.
2. mg/L : milligrams per liter.
3. pCi/L : picoCuries per liter.
4. S.U. : Standard Units.
5. °C : degrees Celsius.
6. µmhos/cm : micromhos per centimeter.
7. mV : millivolts.
8. NTU : Nephelometric Turbidity Unit.
9. < : Analyte not detected at the laboratory method detection limit (MDL).
10. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
11. Cells shaded in blue indicate results that are above the laboratory MDL.
12. The sulfate value for sample MW-25R collected June 9, 2017 was originally reported by the laboratory as 331 mg/L. The laboratory reprepared and analyzed the sample. The value for sulfate on this table is the result of the reanalysis.
13. --- : no analysis performed.
14. Data validation based on USEPA "National Functional Guidelines", OSWER 9355.0-132, EPA-540-R-014-002, Revision August 2014 for Organics and OSWER 9355.0-131, EPA-540-R-013-001, Revision August 2014 for Inorganics.
    U ( ) : The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
    UJ : The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
    J* : The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
    R : The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
15. New pumps were installed in MW-5S, MW-7S, MW-19S, and MW-25R in January 2017.
16. # : Data from Initial Assessment Monitoring determined to be invalid due to laboratory issues and are not to be used in statistical evaluation. Resampling was conducted in January 2019 (both filtered and unfiltered). Data from unfiltered analysis from January 2019 is appropriate for statistical evaluation.
17. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT B
GROUNDWATER SAMPLE DATA TO DATE FOR LANDFILL CCR UNIT
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	MCL or SMCL	Established Background (Det. Mon.)	Established GWPS (Ass. Mon.)	Sample ID:	MW-20	MW-20		MW-20	MW-20	Dup 1	MW-20	MW-20	MW-20	MW-20	MW-20		MW-20
				Sample Date:	4-Oct-18	10-Jan-19		23-Apr-19	30-Sep-19		17-Jun-20	12-Oct-20	31-Mar-21	15-Oct-21	31-Mar-22	6-Jun-22	5-Oct-22
Detection Monitoring Parameters					INITIAL ASSESSMENT MON.	INITIAL ASSESSMENT MON. (RESAMPLE) UNFILTERED	FILTERED	FIRST 2019 ASSESSMENT MON.	SECOND 2019 ASSESSMENT MON.		FIRST 2020 ASSESSMENT MON.	SECOND 2020 ASSESSMENT MON.	FIRST 2021 ASSESSMENT MON.	SECOND 2021 ASSESSMENT MON.	FIRST 2022 ASSESSMENT MON.	FIRST 2022 ASSESSMENT MON. (RESAMPLE)	SECOND 2022 ASSESSMENT MON.
Boron	None	1.896	Not Applicable	mg/L	1.19 #	1.19	0.911	0.721	0.777	0.668	0.624	0.857	0.927	0.930	0.550	---	0.837
Calcium	None	670.30	Not Applicable	mg/L	448 #	398	386	327	368	331	320	312	309	325	324	---	358
Chloride	250	18.51	Not Applicable	mg/L	4.74 #	6.29	7.27	8.02	5.3	5.32	6.18	5.69	5.78	5.17	8.67	5.34	5.39
Fluoride	4	0.6359	Not Applicable	mg/L	0.326 #	0.298	0.304	0.294	0.34	0.311	0.22	0.336	0.279	0.264	<0.500^	0.289	0.209
pH (laboratory)	6.5 - 8.5	6.485 - 8.018	Not Applicable	S.U.	7.4 #	7.17	---	7.35	6.67	6.76	6.55	6.73	6.91	7.94	1.5^	7.6	7.03
Sulfate	250	1,363	Not Applicable	mg/L	1110 #	977	892	794	1060	1080	870	989	782	1030	2070^	732	950
Total Dissolved Solids	500	2,066	Not Applicable	mg/L	1900 #	1630	1530	1690	1890	1850	1560	1710	1490	1850	1940^	1440	1,760
Assessment Monitoring Parameters																	
Antimony	0.006	Not Applicable	0.006 (MCL)	mg/L	<0.0008 #	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	---	<0.000400
Arsenic	0.010	Not Applicable	0.01 (MCL)	mg/L	<0.004 #	<0.000400	<0.000400	0.00107 J	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	---	<0.000400
Barium	2	Not Applicable	2 (MCL)	mg/L	0.014 J #	0.0103	0.012	0.0131	0.0102	0.00931	0.0102	0.00927	0.00981	0.0124	0.0125	---	0.01
Beryllium	0.004	Not Applicable	0.004 (MCL)	mg/L	<0.001 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Cadmium	0.005	Not Applicable	0.005 (MCL)	mg/L	<0.0001 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Chromium	0.1	Not Applicable	0.1 (MCL)	mg/L	<0.005 #	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	0.000401 J	0.000592 J	0.000674 J	---	<0.000400
Cobalt	None	Not Applicable	0.006 (ACL)	mg/L	0.00102 J #	0.000414 J	0.000442 J	0.000449 J	<0.000200	<0.000200	<0.000200	0.000318 J	<0.000200	0.000234 J	0.00112 J	---	<0.000200
Fluoride	4	Not Applicable	4 (MCL)	mg/L	0.326 #	0.298	0.304	0.294	0.34	0.311	0.22	0.336	0.279	0.264	<0.500^	0.289	0.209
Lead	0.015	Not Applicable	0.015 (MCL)	mg/L	<0.001 #	<0.000600	<0.000600	<0.000600	<0.000600	0.00964	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	---	<0.000600
Lithium	None	Not Applicable	0.235 (UTL)	mg/L	0.121 J #	0.0969	0.0959	0.0827	0.101	0.0944	0.0895	0.0891	0.0781	0.105	0.0693	---	0.108
Mercury	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.00015 #	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	0.0000650 J	0.000224	<0.0000300	---	<0.0000300
Molybdenum	None	Not Applicable	0.1 (ACL)	mg/L	<0.001 #	0.000616 J	0.000663 J	0.000835 J	<0.000600	<0.000600	0.000727 J	0.000677 J	0.00220 J	<0.000600	0.000659 J	---	<0.000600
Selenium	0.05	Not Applicable	0.05 (MCL)	mg/L	<0.0003 #	<0.0011	0.00142 J	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	---	<0.00110
Thallium	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.0008 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Ra-226 + Ra-228 (combined)	5	Not Applicable	5 (MCL)	pCi/L	0.888 +/- 0.291 #	<0.72	---	0.91	0.82	<0.74	<0.72	1.33	0.85	0.91	<0.87	---	3.39
Other Parameters																	
Chemical Oxygen Demand (COD)	None	Not Applicable	Not Applicable	mg/L	<5	<5.00	---	<5.00	<5.00	<5.00	---	6.00 J	5.00 J	10.0 J	7.00 J ^	<5.00	<5.00
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	<5	---	---	---	---	---	---	---	---	---	---	---
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	359	---	---	---	---	---	---	---	---	---	---	---
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	<5	---	---	---	---	---	---	---	---	---	---	---
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	29.2	26.3	---	---	---	---	---	---	---	---	---	---
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate as N	10	Not Applicable	Not Applicable	mg/L	<0.049 #	<0.03	<0.03	<0.0300	0.105	0.0616 J	<0.0300	<0.0300	<0.0300	0.0434 J	972^	0.0769 J	<0.0300
Potassium	None	Not Applicable	Not Applicable	mg/L	---	6.72	6.01	---	---	---	---	---	---	---	---	---	---
Sodium	None	Not Applicable	Not Applicable	mg/L	---	70.2	84.7	---	---	---	---	---	---	---	---	---	---
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	2050 #	1960	---	---	---	---	---	2230	1890	2140	23700^	2,170	2,270
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																	
Temperature	None	Not Applicable	Not Applicable	°C	24.9	15.2	---	21.57	23.46	---	22.06	21.3	18.61	20.9	16.3	22.9	22.5
pH	6.5 - 8.5	Not Applicable	Not Applicable	S.U.	6.71	6.65	---	7	6.83	---	6.86	6.81	7.07	6.80	6.95	6.84	6.62
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	2330	1979	---	1937	2240	---	1795	1981	2605	2,140	1,342	1,743	2,087
Dissolved Oxygen	None	Not Applicable	Not Applicable	mg/L	0.86	0.46	---	1.08	0.56	---	1.11	0.28	0.46	0.49	0.30	0.39	0.49
Oxidation-Reduction Potential	None	Not Applicable	Not Applicable	mV	29.7	-13	---	-4.3	-15.7	---	-32.8	29	7.6	58.8	-3.4	28	-40.4
Turbidity	None	Not Applicable	Not Applicable	NTU	8.14	37.7	2.09	0.38	2.9	---	4.04	2.79	3.99	2.44	0.82	1.57	2.01

Notes:

1. MCL : Maximum Contaminant Level: Values obtained from EPA Primary/Secondary Drinking Water Standards.
   The MCL value for lead is the EPA's Action Level.
2. mg/L : milligrams per liter.
3. pCi/L : picoCuries per liter.
4. S.U. : Standard Units.
5. °C : degrees Celsius.
6. µmhos/cm : micromhos per centimeter.
7. mV : millivolts.
8. NTU : Nephelometric Turbidity Unit.
9. < : Analyte not detected at the laboratory method detection limit (MDL).
10. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
11. Cells shaded in blue indicate results that are above the laboratory MDL.
12. The sulfate value for sample MW-25R collected June 9, 2017 was originally reported by the laboratory as 331 mg/L. The laboratory reprepared and analyzed the sample. The value for sulfate on this table is the result of the reanalysis.
13. --- : no analysis performed.
14. Data validation based on USEPA "National Functional Guidelines", OSWER 9355.0-132, EPA-540-R-014-002, Revision August 2014 for Organics and OSWER 9355.0-131, EPA-540-R-013-001, Revision August 2014 for Inorganics.
    U ( ) : The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
    UJ : The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
    J* : The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
    R : The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
15. New pumps were installed in MW-5S, MW-7S, MW-19S, and MW-25R in January 2017.
16. # : Data from Initial Assessment Monitoring determined to be invalid due to laboratory issues and are not to be used in statistical evaluation. Resampling was conducted in January 2019 (both filtered and unfiltered). Data from unfiltered analysis from January 2019 is appropriate for statistical evaluation.
17. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT B
GROUNDWATER SAMPLE DATA TO DATE FOR LANDFILL CCR UNIT
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	MCL or SMCL	Established Background (Det. Mon.)	Established GWPS (Ass. Mon.)	Sample ID: / Sample Date:	MW-21 26-May-16	MW-21 27-Jul-16	DUP 1 27-Jul-16	MW-21 28-Sep-16	MW-21 1-Dec-16	MW-21 31-Jan-17	MW-21 5-Apr-17	MW-21 6-Jun-17	MW-21 8-Aug-17	MW-21 17-May-18	MW-21 (Deep) 10-Aug-18
					BACKGROUND 1	BACKGROUND 2		BACKGROUND 3	BACKGROUND 4	BACKGROUND 5	BACKGROUND 6	BACKGROUND 7	BACKGROUND 8	DETECTION MON. #1	VERIFICATION SAMPLE
Detection Monitoring Parameters				*Units*											
Boron	None	1.896	Not Applicable	mg/L	2.9	2.76	2.86	2.59	3.98	4.41	3.43	3.36	3.07 J	2.95	2.99
Calcium	None	670.30	Not Applicable	mg/L	148	186	205	156	251	176	214	149	165	136	147
Chloride	250	18.51	Not Applicable	mg/L	22.9	22.2	21.8	23.1	22.3	21.5	20.5	21.4	17.8	22	21.9
Fluoride	4	0.6359	Not Applicable	mg/L	0.594	0.752	0.801	0.582	0.564	0.498	0.49	0.559	0.779	0.53	0.453
pH (laboratory)	6.5 - 8.5	6.485 - 8.018	Not Applicable	S.U.	7.56	7.98	8.02	7.9	7.9	7.5	7.4	7.3	7.4	7.5	7.5
Sulfate	250	1,591	Not Applicable	mg/L	1370	1350	1420	1500	1500	1360	1470	1400	1250	1480	1410
Total Dissolved Solids	500	2,546	Not Applicable	mg/L	2410	2380	2360	2510	2430	2440	2320	2430	2320	2570	2560
Assessment Monitoring Parameters															
Antimony	0.006	Not Applicable	0.006 (MCL)	mg/L	<0.000500	<0.000500	<0.000500	<0.000800	<0.00400	<0.000800	<0.000800	<0.000800	<0.000800	---	---
Arsenic	0.010	Not Applicable	0.01 (MCL)	mg/L	0.00259	0.00140 J	0.00154 J	0.00145 J	<0.00200	0.000960 J	0.00119 J	<0.000400	0.00155 J	---	---
Barium	2	Not Applicable	2 (MCL)	mg/L	0.0144	0.0131	0.0128	0.012	0.0202	0.0121	0.0114	0.0107	0.11	---	---
Beryllium	0.004	Not Applicable	0.004 (MCL)	mg/L	<0.00100	<0.00100	<0.00100	<0.000100	<0.000500	<0.000100	<0.000100	<0.000100	<0.00100	---	---
Cadmium	0.005	Not Applicable	0.005 (MCL)	mg/L	<0.000400	<0.000400	<0.000400	<0.000100	<0.000500	<0.000100	<0.000100	<0.000100	<0.00100	---	---
Chromium	0.1	Not Applicable	0.1 (MCL)	mg/L	0.000586 J	<0.000500	<0.000500	<0.000500	<0.00250	<0.000500	<0.000500	<0.000500	<0.000500	---	---
Cobalt	None	Not Applicable	0.006 (ACL)	mg/L	0.000571 J	<0.000500	<0.000500	0.000403 J	0.000555 J	0.000434 J	0.000316 J	<0.000100	0.000281 J	---	---
Fluoride	4	Not Applicable	4 (MCL)	mg/L	0.594	0.752	0.801	0.582	0.564	0.498	0.49	0.559	0.779	0.53	0.453
Lead	0.015	Not Applicable	0.015 (MCL)	mg/L	<0.000200	<0.000200	<0.000200	<0.000100	<0.000500	<0.000100	<0.000100	<0.000100	<0.000100	---	---
Lithium	None	Not Applicable	0.235 (UTL)	mg/L	0.163	0.129	0.126	0.13	0.224 J	0.143	0.137	0.131	0.147	---	0.121
Mercury	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	<0.000150	---	---
Molybdenum	None	Not Applicable	0.1 (ACL)	mg/L	0.00385	0.00193 J	0.00188 J	0.00212	<0.00500	0.0023	0.002	0.00175 J	0.00152 J	---	<0.00100
Selenium	0.05	Not Applicable	0.05 (MCL)	mg/L	<0.000600	<0.000600	<0.000600	<0.000300	<0.00150	0.000512 J	<0.000300	0.00391	<0.000300	---	---
Thallium	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.000500	<0.000500	<0.000500	<0.000800	<0.00400	<0.000800	<0.000800	<0.000800	<0.000800	---	---
Ra-226 + Ra-228 (combined)	5	Not Applicable	5 (MCL)	pCi/L	1.99 +/- 0.327	1.62 +/- 0.384	1.91 +/- 0.376	2.17 +/- 0.422	1.87 +/- 0.494	2.19 +/- 0.444	1.26 +/- 0.315	2.06 +/- 0.383	0.973 +/- 0.258	---	---
Other Parameters															
Chemical Oxygen Demand (COD)	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<5.00	---	---
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	312	---	---
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<5.00	---	---
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	35.1	---	---
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---
Nitrate as N	10	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---
Potassium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	9.21	---	---
Sodium	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	791	---	---
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	---	---	---	---	---	---	---	---	---	---	---
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---
Field Parameters															
Temperature	None	Not Applicable	Not Applicable	ºC	20.64	22.37	---	21.75	19.28	20.91	18.26	22.05	20.69	21.36	25.09
pH	6.5 - 8.5	Not Applicable	Not Applicable	S.U.	7.37	7.32	---	7.32	7.28	7.26	6.19	7.2	7.11	7.28	6.91
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	3111	3578	---	3600	3586	3625	3555	3493	3421	3504	3544
Dissolved Oxygen	None	Not Applicable	Not Applicable	mg/L	0.24	0.45	---	0.07	0.17	0.27	0.32	0.12	0.07	0.16	1.45
Oxidation-Reduction Potential	None	Not Applicable	Not Applicable	mV	62.8	-72.7	---	-92.6	-239	-182	247.3	-12.6	59.8	-45.2	99
Turbidity	None	Not Applicable	Not Applicable	NTU	2.1	0.32	---	0.3	0.29	0.27	0.84	0.74	1.07	0.28	0.5

Notes:

1. MCL : Maximum Contaminant Level: Values obtained from EPA Primary/Secondary Drinking Water Standards.
   The MCL value for lead is the EPA's Action Level.
2. mg/L : milligrams per liter.
3. pCi/L : picoCuries per liter.
4. S.U. : Standard Units.
5. ºC : degrees Celsius.
6. µmhos/cm : micromhos per centimeter.
7. mV : millivolts.
8. NTU : Nephelometric Turbidity Unit.
9. < : Analyte not detected at the laboratory method detection limit (MDL).
10. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
11. Cells shaded in blue indicate results that are above the laboratory MDL.
12. The sulfate value for sample MW-25R collected June 9, 2017 was originally reported by the laboratory as 331 mg/L. The laboratory reprepared and analyzed the sample. The value for sulfate on this table is the result of the reanalysis.
13. --- : no analysis performed.
14. Data validation based on USEPA "National Functional Guidelines", OSWER 9355.0-132, EPA-540-R-014-002, Revision August 2014 for Organics and OSWER 9355.0-131, EPA-540-R-013-001, Revision August 2014 for Inorganics.
    U ( ) : The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
    UJ : The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
    J* : The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
    R : The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
15. New pumps were installed in MW-5S, MW-7S, MW-19S, and MW-25R in January 2017.
16. # : Data from Initial Assessment Monitoring determined to be invalid due to laboratory issues and are not to be used in statistical evaluation. Resampling was conducted in January 2019 (both filtered and unfiltered). Data from unfiltered analysis from January 2019 is appropriate for statistical evaluation.
17. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT B
GROUNDWATER SAMPLE DATA TO DATE FOR LANDFILL CCR UNIT
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	MCL or SMCL	Established Background (Det. Mon.)	Established GWPS (Ass. Mon.)	Sample ID:	MW-21	MW-21		MW-21	DUP-2	MW-21	DUP-2	MW-21	MW-21	MW-21	MW-21	DUP 3	MW-21		MW-21
				Sample Date:	3-Oct-18	15-Jan-19		24-Apr-19		2-Oct-19		17-Jun-20	12-Oct-20	31-Mar-21	13-Oct-21		30-Mar-22	6-Jun-22	5-Oct-22
Detection Monitoring Parameters				*Units*	INITIAL ASSESSMENT MON.	INITIAL ASSESSMENT MON. (RESAMPLE) UNFILTERED	FILTERED	FIRST 2019 ASSESSMENT MON.		SECOND 2019 ASSESSMENT MON.		FIRST 2020 ASSESSMENT MON.	SECOND 2020 ASSESSMENT MON.	FIRST 2021 ASSESSMENT MON.	SECOND 2021 ASSESSMENT MON.		FIRST 2022 ASSESSMENT MON.	FIRST 2022 ASSESSMENT MON. (RESAMPLE)	SECOND 2022 ASSESSMENT MON.
Boron	None	1.896	Not Applicable	mg/L	3.07 #	3.96	3.92	3.79	3.63	2.63	2.89	2.84	2.77	2.42	2.53	2.31	3.17	---	2.36
Calcium	None	670.30	Not Applicable	mg/L	152 #	187	187	145	142	146	155	139	141	154	128	135	173	---	140
Chloride	250	18.51	Not Applicable	mg/L	21.9 #	22.1	22	20.6	19.8	22.1	22.2	21.8	22.8	23.3	21.5	22.1	23^	22.4	21.8
Fluoride	4	0.6359	Not Applicable	mg/L	0.458 #	0.438	2.05	0.513	0.505	0.537	0.509	0.524	0.470 J	0.578	0.411	0.471	0.683^	0.543	0.445
pH (laboratory)	6.5 - 8.5	6.485 - 8.018	Not Applicable	S.U.	7.9 #	6.89	---	7.77	7.74	7.58	7.12	7.07	7.64	7.28	7.28	7.43	1.64^	7.57	7.42
Sulfate	250	1,591	Not Applicable	mg/L	1610 #	1670	1710	1440	1530	1560	1530	1470	1780	1660	1670	1520	2340^	1,610	1,440
Total Dissolved Solids	500	2,546	Not Applicable	mg/L	2650 #	2740	2720	2550	2650	2700	2720	2470	2660	2650	2660	2560	3500^	2,660	2,440
Assessment Monitoring Parameters																			
Antimony	0.006	Not Applicable	0.006 (MCL)	mg/L	<0.0008 #	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	0.000545 J	<0.000400	---	<0.000400
Arsenic	0.010	Not Applicable	0.01 (MCL)	mg/L	<0.008 #	0.00329	0.00223	0.00112 J	0.00136 J	0.000638 J	0.000574 J	0.000551 J	0.000536 J	0.000534 J	0.000539 J	0.000521 J	0.000695 J	---	0.000569 J
Barium	2	Not Applicable	2 (MCL)	mg/L	0.0137 J #	0.0182	0.0176	0.0127	0.0117	0.00999	0.0111	0.0106	0.0107	0.0112	0.0102	0.0105	0.0139	---	0.00932
Beryllium	0.004	Not Applicable	0.004 (MCL)	mg/L	<0.002 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Cadmium	0.005	Not Applicable	0.005 (MCL)	mg/L	<0.0001 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Chromium	0.1	Not Applicable	0.1 (MCL)	mg/L	<0.01 #	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	0.000669 J	---	<0.000400
Cobalt	None	Not Applicable	0.006 (ACL)	mg/L	0.000216 J #	0.00175 J	0.00140 J	0.000407 J	0.000321 J	0.000227 J	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	0.000620 J	---	<0.000200
Fluoride	4	Not Applicable	4 (MCL)	mg/L	0.458 #	0.438	2.05	0.513	0.505	0.537	0.509	0.524	0.470 J	0.578	0.411	0.471	0.683^	0.543	0.445
Lead	0.015	Not Applicable	0.015 (MCL)	mg/L	<0.0001 #	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	---	<0.000600
Lithium	None	Not Applicable	0.235 (UTL)	mg/L	0.164 J #	0.157	0.16	0.14	0.134	0.118	0.129	0.14	0.123	0.137	0.125	0.114	0.143	---	0.144
Mercury	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.00015 #	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	<0.0000300	0.0000380 J	<0.0000300	0.0000330 J	<0.0000300	---	<0.0000300
Molybdenum	None	Not Applicable	0.1 (ACL)	mg/L	<0.001 #	0.00161 J	0.00160 J	0.00131 J	0.00118 J	0.00105 J	0.00184 J	0.00103 J	0.00103 J	0.000902 J	0.000677 J	0.000876 J	0.00172 J	---	<0.000600
Selenium	0.05	Not Applicable	0.05 (MCL)	mg/L	<0.0003 #	<0.0011	<0.0011	<0.00110	0.00111 J	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	---	<0.00110
Thallium	0.002	Not Applicable	0.002 (MCL)	mg/L	<0.0008 #	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	---	<0.000200
Ra-226 + Ra-228 (combined)	5	Not Applicable	5 (MCL)	pCi/L	3.41 +/- 0.496 #	6.29	---	2.24	1.67	1.59	2.57	3.09	2.38	2.44	2.94	2.58	2.58	---	3.28
Other Parameters																			
Chemical Oxygen Demand (COD)	None	Not Applicable	Not Applicable	mg/L	<5 #	<5	---	<5.00	<5.00	<5.00	7.00 J	---	<5.00	<5.00	<5.00	7.00 J	5.00 J ^	<5.00	16
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	<5	---	---	---	---	---	---	---	---	---	---	---	---	---
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	393	---	---	---	---	---	---	---	---	---	---	---	---	---
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	<5	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	62.1	62.3	---	---	---	---	---	---	---	---	---	---	---	---
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate as N	10	Not Applicable	Not Applicable	mg/L	0.449 #	0.14	0.145	1.16	1.36	0.329	0.467	<0.150	<0.150	0.961	0.207	0.168 J	687^	0.399	0.28
Potassium	None	Not Applicable	Not Applicable	mg/L	---	12	11.8	---	---	---	---	---	---	---	---	---	---	---	---
Sodium	None	Not Applicable	Not Applicable	mg/L	---	684	688	---	---	---	---	---	---	---	---	---	---	---	---
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	3120 #	3610	---	---	---	---	---	---	3940	3550	3620	3480	22000^	9,390	3,530
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																			
Temperature	None	Not Applicable	Not Applicable	ºC	24	13.8	---	18.12	---	24.38	---	23.17	23.2	15.44	21.3	---	13.8	25	24.1
pH	6.5 - 8.5	Not Applicable	Not Applicable	S.U.	7.13	7.1	---	7.42	---	7.29	---	7.23	7.26	7.43	7.23	---	7.44	7.28	7.06
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	3627	3585	---	3533	---	3633	---	3352	3516	4806	3,262	---	2,769	3542	3355
Dissolved Oxygen	None	Not Applicable	Not Applicable	mg/L	0.43	0.59	---	1.23	---	0.64	---	0.65	0.48	5	0.31	---	0.43	0.63	0.51
Oxidation-Reduction Potential	None	Not Applicable	Not Applicable	mV	45.9	-67.1	---	84	---	91.9	---	-38	119.3	25.6	-212.1	---	-33.3	47.7	52.9
Turbidity	None	Not Applicable	Not Applicable	NTU	2.38	3.3	1.11	0.44	---	0.26	---	2.04	0.52	1.27	1.33	---	0.68	1.3	3.27

Notes:

1. MCL : Maximum Contaminant Level: Values obtained from EPA Primary/Secondary Drinking Water Standards.
   The MCL value for lead is the EPA's Action Level.
2. mg/L : milligrams per liter.
3. pCi/L : picoCuries per liter.
4. S.U. : Standard Units.
5. ºC : degrees Celsius.
6. µmhos/cm : micromhos per centimeter.
7. mV : millivolts.
8. NTU : Nephelometric Turbidity Unit.
9. < : Analyte not detected at the laboratory method detection limit (MDL).
10. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
11. Cells shaded in blue indicate results that are above the laboratory MDL.
12. The sulfate value for sample MW-25R collected June 9, 2017 was originally reported by the laboratory as 331 mg/L. The laboratory reprepared and analyzed the sample. The value for sulfate on this table is the result of the reanalysis.
13. --- : no analysis performed.
14. Data validation based on USEPA "National Functional Guidelines", OSWER 9355.0-132, EPA-540-R-014-002, Revision August 2014 for Organics and OSWER 9355.0-131, EPA-540-R-013-001, Revision August 2014 for Inorganics.
    U ( ) : The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
    UJ : The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
    J* : The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
    R : The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
15. New pumps were installed in MW-5S, MW-7S, MW-19S, and MW-25R in January 2017.
16. # : Data from Initial Assessment Monitoring determined to be invalid due to laboratory issues and are not to be used in statistical evaluation. Resampling was conducted in January 2019 (both filtered and unfiltered). Data from unfiltered analysis from January 2019 is appropriate for statistical evaluation.
17. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.