wfec western farmers electric cooperative

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

June 28, 2022

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 First 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 first 2022 assessment monitoring was conducted between March 29 and April 1, 2022. During QA/QC evaluation of the data, it was determined that at monitoring wells MW-3, MW-5s, MW-16, MW-17, MW-20, and MW-21 (for the Landfill CCR Unit) and at monitoring wells MW-9, MW-11, MW-22A, MW-23A, MW-24, and MW-25R (for the Surface Impoundment CCR Unit) samples for chloride, fluoride, pH, sulfate, TDS, and for some parameters utilized to evaluate corrective measures were inadvertently placed into inappropriately preserved containers. Because of this, and as part of the first 2022 assessment monitoring, the above referenced monitoring wells were resampled between June 6 and June 7, 2022 for the affected analytes. The lab analytical results from the March 29/April 1, 2022 event for affected analytes were not used for comparison to background or Ground Water Protection Standards (GWPS) and will not be used for future statistical evaluation.

Based upon review of data from the first 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 March 29- April 1, 2022 sampling and for the June 2022 resample 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 first 2022 assessment monitoring are included in **Attachment B**.

Molybdenum is consistently 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.

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
Environmental Coordinator

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

ATTACHMENT A

FIRST 2022 ASSESSMENT MONITORING LABORATORY REPORT (LANDFILL CCR UNIT)

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
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June 22, 2022

Bert Smith
Altamira
525 central park Dr
Suite 500
Oklahoma City, OK 73013

Work Order: **HS22040016**

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

Dear Bert Smith,

ALS Environmental received 13 sample(s) on Apr 01, 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
Ragen Giga
Project Manager

Client: Altamira
Project: WFEC CCR/Landfill
Work Order: HS22040016

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS22040016-01	MW-14A	Water		30-Mar-2022 15:29	01-Apr-2022 09:40	☐
HS22040016-02	MW-15A	Water		30-Mar-2022 12:22	01-Apr-2022 09:40	☐
HS22040016-03	MW-21	Water		30-Mar-2022 17:33	01-Apr-2022 09:40	☐
HS22040016-04	MW-3	Water		30-Mar-2022 15:51	01-Apr-2022 09:40	☐
HS22040016-05	MW-5S	Water		31-Mar-2022 15:31	02-Apr-2022 09:45	☐
HS22040016-06	MW-7S	Water		01-Apr-2022 19:29	02-Apr-2022 09:45	☐
HS22040016-07	MW-13	Water		01-Apr-2022 11:54	02-Apr-2022 09:45	☐
HS22040016-08	MW-16	Water		01-Apr-2022 13:31	02-Apr-2022 09:45	☐
HS22040016-09	MW-17	Water		31-Mar-2022 17:22	02-Apr-2022 09:45	☐
HS22040016-10	MW-18	Water		31-Mar-2022 17:08	02-Apr-2022 09:45	☐
HS22040016-11	MW-19S	Water		01-Apr-2022 13:35	02-Apr-2022 09:45	☐
HS22040016-12	MW-20	Water		31-Mar-2022 19:20	02-Apr-2022 09:45	☐
HS22040016-13	DUP 3	Water		31-Mar-2022 17:08	02-Apr-2022 09:45	☐

Revision:1

Client: Altamira **CASE NARRATIVE**
Project: WFEC CCR/Landfill
Work Order: HS22040016

Work Order Comments

- Report Revised on May 23,2022 to attach Revised Sub Data Report from ALS Fort Collins.(RAD data was inadvertently not reported as combined 226/228 on the original report submitted)

  Sample ID`s - MW-5S, MW-16, MW-17 & MW-20 Radium 226 Metals pH>2 (7) Preserved with 4ml HNO3 on 4/2/2022 @12:00pm Lot # 318173210 - After preservation pH (1)

  The analyses for Radium-226 and Radium-228 were subcontracted to ALS Environmental in Fort Collins, CO. Final report attached.

  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.

Metals by Method SM3500FED

Batch ID: R406808,R406809,R405511,R405513,R405615,R405619

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

Metals by Method SW7470A

Batch ID: 177568

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

Metals by Method SW6020A

Batch ID: 177562

Sample ID: MW-19S (HS22040016-11MS)

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

Batch ID: 177564

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

Wet Chemistry by Method E300

Batch ID: R405613

Sample ID: HS22031336-03MS

- MS and MSD are for an unrelated sample

Batch ID: R406347

Sample ID: HS22040585-02MS

- MS and MSD are for an unrelated sample

WetChemistry by Method SM4500H+ B

Batch ID: R406522

- 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: HS22040016

WetChemistry by Method SM4500 S2-F

Batch ID: R406135,R406136

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

WetChemistry by Method SM2320B

Batch ID: R406334

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

WetChemistry by Method E410.4

Batch ID: R406426

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

WetChemistry by Method M2510 B

Batch ID: R405864,R405967

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

WetChemistry by Method M2540C

Batch ID: R405818,R406177

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

WetChemistry by Method E300

Batch ID: R405597

Sample ID: DUP 3 (HS22040016-13)

- The reporting limit(s) is/are elevated due to dilution for high concentrations of SO4

Sample ID: MW-13 (HS22040016-07)

- The reporting limit(s) is/are elevated due to dilution for high concentrations of SO4

Sample ID: MW-17 (HS22040016-09)

- The reporting limit(s) is/are elevated due to dilution for high concentrations of SO4

Sample ID: MW-18 (HS22040016-10)

- The reporting limit(s) is/are elevated due to dilution for high concentrations of SO4

Sample ID: MW-19S (HS22040016-11)

- The reporting limit(s) is/are elevated due to dilution for high concentrations of SO4

Client: Altamira **CASE NARRATIVE**
Project: WFEC CCR/Landfill
Work Order: HS22040016

WetChemistry by Method E300

Batch ID: R405587

Sample ID: MW-14A (HS22040016-01)

- The reporting limit(s) is/are elevated due to dilution for high concentrations of SO4

Sample ID: MW-15A (HS22040016-02)

- The reporting limit(s) is/are elevated due to dilution for high concentrations of SO4

Sample ID: HS22031619-07MS/HS22031669-03MS

- MS and MSD are for an unrelated sample

Batch ID: R405613

Sample ID: MW-17 (HS22040016-09)

- Sample dilution was performed outside of hold time.

- Sample originally ran withing holding time at 5X, re-analyzed out of holding time at 50X dilution due to high concentration of Nitrate.

Batch ID: R406349

Sample ID: MW-21 (HS22040016-03MS)

- 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)

- The recovery of the Matrix Spike (MS) and/or Matrix Spike Duplicate (MSD) associated with this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS/MSD may be due to sample matrix interference. (Fluoride)

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: MW-14A
Collection Date: 30-Mar-2022 15:29

ANALYTICAL REPORT
WorkOrder:HS22040016
Lab ID:HS22040016-01
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	**0.119**		**0.0200**	**0.0500**	**mg/L**	1	19-Apr-2022 10:04
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		**Method:SM3500FED (dissolved)**					Analyst: JHD
Ferric Iron, Dissolved	**0.0470**	J	**0.0200**	**0.0500**	**mg/L**	1	19-Apr-2022 10:07
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 13-Apr-2022		Analyst: JC
Antimony	U		0.000400	0.00200	mg/L	1	15-Apr-2022 21:58
Arsenic	U		0.000400	0.00200	mg/L	1	15-Apr-2022 21:58
Barium	**0.0120**		**0.00190**	**0.00400**	**mg/L**	1	15-Apr-2022 21:58
Beryllium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 21:58
Boron	**0.918**		**0.110**	**0.200**	**mg/L**	10	18-Apr-2022 12:23
Cadmium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 21:58
Calcium	**330**		**0.340**	**5.00**	**mg/L**	10	18-Apr-2022 12:23
Chromium	U		0.000400	0.00400	mg/L	1	15-Apr-2022 21:58
Cobalt	**0.00120**	J	**0.000200**	**0.00500**	**mg/L**	1	15-Apr-2022 21:58
Iron	**0.249**		**0.0120**	**0.200**	**mg/L**	1	15-Apr-2022 21:58
Lead	U		0.000600	0.00200	mg/L	1	15-Apr-2022 21:58
Lithium	**0.180**		**0.00100**	**0.00500**	**mg/L**	1	15-Apr-2022 21:58
Magnesium	**29.2**		**0.0100**	**0.200**	**mg/L**	1	15-Apr-2022 21:58
Molybdenum	U		0.000600	0.00500	mg/L	1	15-Apr-2022 21:58
Potassium	**8.73**		**0.0180**	**0.200**	**mg/L**	1	15-Apr-2022 21:58
Selenium	U		0.00110	0.00200	mg/L	1	15-Apr-2022 21:58
Sodium	**503**		**0.140**	**2.00**	**mg/L**	10	18-Apr-2022 12:23
Thallium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 21:58
DISSOLVED METALS BY SW6020A		**Method:SW6020A (dissolved)**			Prep:SW3010A / 13-Apr-2022		Analyst: JC
Iron	**0.189**	J	**0.0120**	**0.200**	**mg/L**	1	13-Apr-2022 19:51
Molybdenum	U		0.000600	0.00500	mg/L	1	13-Apr-2022 19:51
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 13-Apr-2022		Analyst: MSC
Mercury	U		0.0000300	0.000200	mg/L	1	13-Apr-2022 14:16
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: YP
Chloride	**13.8**		**1.00**	**2.50**	**mg/L**	5	01-Apr-2022 12:00
Fluoride	**0.406**	J	**0.250**	**0.500**	**mg/L**	5	01-Apr-2022 12:00
Nitrogen, Nitrate (As N)	**0.484**	J	**0.150**	**0.500**	**mg/L**	5	01-Apr-2022 12:00
Sulfate	**1,610**		**10.0**	**25.0**	**mg/L**	50	12-Apr-2022 19:54
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	13-Apr-2022 17:00
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: TH
Specific Conductivity	**3,490**		**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	07-Apr-2022 10:00

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: MW-14A
Collection Date: 30-Mar-2022 15:29

ANALYTICAL REPORT
WorkOrder:HS22040016
Lab ID:HS22040016-01
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)	**2,690**		**5.00**	**10.0**	**mg/L**	1	05-Apr-2022 15:25
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: TH
Alkalinity, Bicarbonate (As CaCO3)	**330**		**5.00**	**5.00**	**mg/L**	1	12-Apr-2022 15:45
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	12-Apr-2022 15:45
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	12-Apr-2022 15:45
Alkalinity, Total (As CaCO3)	**330**		**5.00**	**5.00**	**mg/L**	1	12-Apr-2022 15:45
FERROUS IRON BY SM3500 FE B		**Method:SM3500FED**					Analyst: AP
Ferrous Iron	**0.130**		**0.0200**	**0.0500**	**mg/L**	1	01-Apr-2022 12:05
FERROUS IRON BY SM3500 FE D		**Method:SM3500FED (dissolved)**					Analyst: AP
Ferrous Iron, Dissolved	**0.142**		**0.0200**	**0.0500**	**mg/L**	1	01-Apr-2022 12:08
SULFIDE BY SM4500 S2-F-2011		**Method:SM4500 S2-F**					Analyst: JHD
Sulfide	U		1.00	1.00	mg/L	1	06-Apr-2022 17:00
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: MZD
pH	**7.99**	H	**0.100**	**0.100**	**pH Units**	1	14-Apr-2022 14:15
Temp Deg C @pH	**21.1**	H	**0**	**0**	**°C**	1	14-Apr-2022 14:15
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	29-Apr-2022 10:16
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	29-Apr-2022 10:16

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: MW-15A
Collection Date: 30-Mar-2022 12:22

ANALYTICAL REPORT
WorkOrder:HS22040016
Lab ID:HS22040016-02
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	**0.0360**	J	**0.0200**	**0.0500**	**mg/L**	1	19-Apr-2022 10:04
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		**Method:SM3500FED (dissolved)**					Analyst: JHD
Ferric Iron, Dissolved	U		0.0200	0.0500	mg/L	1	19-Apr-2022 10:07
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 13-Apr-2022		Analyst: JC
Antimony	U		0.000400	0.00200	mg/L	1	15-Apr-2022 22:00
Arsenic	**0.000661**	J	**0.000400**	**0.00200**	**mg/L**	1	15-Apr-2022 22:00
Barium	**0.0222**		**0.00190**	**0.00400**	**mg/L**	1	15-Apr-2022 22:00
Beryllium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:00
Boron	**3.35**		**0.110**	**0.200**	**mg/L**	10	18-Apr-2022 12:25
Cadmium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:00
Calcium	**119**		**0.0340**	**0.500**	**mg/L**	1	15-Apr-2022 22:00
Chromium	U		0.000400	0.00400	mg/L	1	15-Apr-2022 22:00
Cobalt	**0.000651**	J	**0.000200**	**0.00500**	**mg/L**	1	15-Apr-2022 22:00
Iron	**0.236**		**0.0120**	**0.200**	**mg/L**	1	15-Apr-2022 22:00
Lead	U		0.000600	0.00200	mg/L	1	15-Apr-2022 22:00
Lithium	**0.0815**		**0.00100**	**0.00500**	**mg/L**	1	15-Apr-2022 22:00
Magnesium	**12.3**		**0.0100**	**0.200**	**mg/L**	1	15-Apr-2022 22:00
Molybdenum	**0.181**		**0.000600**	**0.00500**	**mg/L**	1	15-Apr-2022 22:00
Potassium	**5.91**		**0.0180**	**0.200**	**mg/L**	1	15-Apr-2022 22:00
Selenium	U		0.00110	0.00200	mg/L	1	15-Apr-2022 22:00
Sodium	**680**		**0.140**	**2.00**	**mg/L**	10	18-Apr-2022 12:25
Thallium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:00
DISSOLVED METALS BY SW6020A		**Method:SW6020A (dissolved)**			Prep:SW3010A / 13-Apr-2022		Analyst: JC
Iron	**0.234**		**0.0120**	**0.200**	**mg/L**	1	13-Apr-2022 19:53
Molybdenum	**0.159**		**0.000600**	**0.00500**	**mg/L**	1	13-Apr-2022 19:53
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 13-Apr-2022		Analyst: MSC
Mercury	U		0.0000300	0.000200	mg/L	1	13-Apr-2022 14:18
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: YP
Chloride	**27.0**		**1.00**	**2.50**	**mg/L**	5	01-Apr-2022 12:05
Fluoride	**1.31**		**0.250**	**0.500**	**mg/L**	5	01-Apr-2022 12:05
Nitrogen, Nitrate (As N)	**0.894**		**0.150**	**0.500**	**mg/L**	5	01-Apr-2022 12:05
Sulfate	**1,540**		**10.0**	**25.0**	**mg/L**	50	12-Apr-2022 19:43
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	13-Apr-2022 17:00
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: TH
Specific Conductivity	**3,620**		**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	07-Apr-2022 10:00

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: MW-15A
Collection Date: 30-Mar-2022 12:22

ANALYTICAL REPORT
WorkOrder:HS22040016
Lab ID:HS22040016-02
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)	**2,450**		**5.00**	**10.0**	**mg/L**	1	05-Apr-2022 15:25
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: TH
Alkalinity, Bicarbonate (As CaCO3)	**193**		**5.00**	**5.00**	**mg/L**	1	12-Apr-2022 15:52
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	12-Apr-2022 15:52
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	12-Apr-2022 15:52
Alkalinity, Total (As CaCO3)	**193**		**5.00**	**5.00**	**mg/L**	1	12-Apr-2022 15:52
FERROUS IRON BY SM3500 FE B		**Method:SM3500FED**					Analyst: AP
Ferrous Iron	**0.200**		**0.0200**	**0.0500**	**mg/L**	1	01-Apr-2022 12:05
FERROUS IRON BY SM3500 FE D		**Method:SM3500FED (dissolved)**					Analyst: AP
Ferrous Iron, Dissolved	**0.243**		**0.0200**	**0.0500**	**mg/L**	1	01-Apr-2022 12:08
SULFIDE BY SM4500 S2-F-2011		**Method:SM4500 S2-F**					Analyst: JHD
Sulfide	U		1.00	1.00	mg/L	1	06-Apr-2022 17:00
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: MZD
pH	**8.08**	H	**0.100**	**0.100**	**pH Units**	1	14-Apr-2022 14:15
Temp Deg C @pH	**21.2**	H	**0**	**0**	**°C**	1	14-Apr-2022 14:15
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	29-Apr-2022 10:16
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	29-Apr-2022 10:16

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: MW-21
Collection Date: 30-Mar-2022 17:33

ANALYTICAL REPORT
WorkOrder:HS22040016
Lab ID:HS22040016-03
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 13-Apr-2022		Analyst: JC
Antimony	U		0.000400	0.00200	mg/L	1	15-Apr-2022 11:41
Arsenic	**0.000695**	J	**0.000400**	**0.00200**	**mg/L**	1	15-Apr-2022 11:41
Barium	**0.0139**		**0.00190**	**0.00400**	**mg/L**	1	15-Apr-2022 11:41
Beryllium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 11:41
Boron	**3.17**		**0.110**	**0.200**	**mg/L**	10	18-Apr-2022 12:19
Cadmium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 11:41
Calcium	**173**		**0.0340**	**0.500**	**mg/L**	1	15-Apr-2022 11:41
Chromium	**0.000669**	J	**0.000400**	**0.00400**	**mg/L**	1	15-Apr-2022 11:41
Cobalt	**0.000620**	J	**0.000200**	**0.00500**	**mg/L**	1	15-Apr-2022 11:41
Lead	U		0.000600	0.00200	mg/L	1	15-Apr-2022 11:41
Lithium	**0.143**		**0.00100**	**0.00500**	**mg/L**	1	15-Apr-2022 11:41
Molybdenum	**0.00172**	J	**0.000600**	**0.00500**	**mg/L**	1	15-Apr-2022 11:41
Selenium	U		0.00110	0.00200	mg/L	1	15-Apr-2022 11:41
Thallium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 11:41
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 13-Apr-2022		Analyst: MSC
Mercury	U		0.0000300	0.000200	mg/L	1	13-Apr-2022 14:19
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: YP
Chloride	**23.0**		**1.00**	**2.50**	**mg/L**	5	12-Apr-2022 21:56
Fluoride	**0.683**		**0.250**	**0.500**	**mg/L**	5	12-Apr-2022 21:56
Nitrogen, Nitrate (As N)	**687**		**1.50**	**5.00**	**mg/L**	50	01-Apr-2022 12:10
Sulfate	**2,340**		**10.0**	**25.0**	**mg/L**	50	01-Apr-2022 12:10
CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993		**Method:E410.4**					Analyst: TH
Chemical Oxygen Demand	**5.00**	J	**5.00**	**15.0**	**mg/L**	1	13-Apr-2022 17:00
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: TH
Specific Conductivity	**22,000**		**50.0**	**50.0**	**umhos/cm @ 25.0 °C**	10	07-Apr-2022 10:00
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: CWG
Total Dissolved Solids (Residue, Filterable)	**3,500**		**5.00**	**10.0**	**mg/L**	1	05-Apr-2022 15:25
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: MZD
pH	**1.64**	H	**0.100**	**0.100**	**pH Units**	1	14-Apr-2022 14:15
Temp Deg C @pH	**21.3**	H	**0**	**0**	**°C**	1	14-Apr-2022 14:15
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	29-Apr-2022 10:16
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	29-Apr-2022 10:16

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: MW-3
Collection Date: 30-Mar-2022 15:51

ANALYTICAL REPORT
WorkOrder:HS22040016
Lab ID:HS22040016-04
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 13-Apr-2022		Analyst: JC
Antimony	U		0.000400	0.00200	mg/L	1	15-Apr-2022 22:04
Arsenic	**0.000576**	J	**0.000400**	**0.00200**	**mg/L**	1	15-Apr-2022 22:04
Barium	**0.0133**		**0.00190**	**0.00400**	**mg/L**	1	15-Apr-2022 22:04
Beryllium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:04
Boron	**1.06**		**0.0550**	**0.100**	**mg/L**	5	18-Apr-2022 12:27
Cadmium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:04
Calcium	**210**		**0.170**	**2.50**	**mg/L**	5	18-Apr-2022 12:27
Chromium	U		0.000400	0.00400	mg/L	1	15-Apr-2022 22:04
Cobalt	**0.000765**	J	**0.000200**	**0.00500**	**mg/L**	1	15-Apr-2022 22:04
Lead	U		0.000600	0.00200	mg/L	1	15-Apr-2022 22:04
Lithium	**0.142**		**0.00100**	**0.00500**	**mg/L**	1	15-Apr-2022 22:04
Molybdenum	U		0.000600	0.00500	mg/L	1	15-Apr-2022 22:04
Selenium	U		0.00110	0.00200	mg/L	1	15-Apr-2022 22:04
Thallium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:04
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 13-Apr-2022		Analyst: MSC
Mercury	U		0.0000300	0.000200	mg/L	1	13-Apr-2022 14:21
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: YP
Chloride	**13.0**		**1.00**	**2.50**	**mg/L**	5	12-Apr-2022 22:11
Fluoride	**2.12**		**0.250**	**0.500**	**mg/L**	5	12-Apr-2022 22:11
Nitrogen, Nitrate (As N)	**670**		**1.50**	**5.00**	**mg/L**	50	01-Apr-2022 12:15
Sulfate	**1,790**		**10.0**	**25.0**	**mg/L**	50	01-Apr-2022 12:15
CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993		**Method:E410.4**					Analyst: TH
Chemical Oxygen Demand	**5.00**	J	**5.00**	**15.0**	**mg/L**	1	13-Apr-2022 17:00
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: TH
Specific Conductivity	**20,900**		**50.0**	**50.0**	**umhos/cm @ 25.0 °C**	10	07-Apr-2022 10:00
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: CWG
Total Dissolved Solids (Residue, Filterable)	**2,700**		**5.00**	**10.0**	**mg/L**	1	05-Apr-2022 15:25
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: MZD
pH	**1.61**	H	**0.100**	**0.100**	**pH Units**	1	14-Apr-2022 14:15
Temp Deg C @pH	**21.4**	H	**0**	**0**	**°C**	1	14-Apr-2022 14:15
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	29-Apr-2022 10:16
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	29-Apr-2022 10:16

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: MW-5S
Collection Date: 31-Mar-2022 15:31

ANALYTICAL REPORT
WorkOrder:HS22040016
Lab ID:HS22040016-05
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	**0.0435**	J	**0.0200**	**0.0500**	**mg/L**	1	19-Apr-2022 10:04
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		**Method:SM3500FED (dissolved)**					Analyst: JHD
Ferric Iron, Dissolved	U		0.0200	0.0500	mg/L	1	19-Apr-2022 10:07
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 13-Apr-2022		Analyst: JC
Antimony	U		0.000400	0.00200	mg/L	1	15-Apr-2022 22:06
Arsenic	**0.000423**	J	**0.000400**	**0.00200**	**mg/L**	1	15-Apr-2022 22:06
Barium	**0.0113**		**0.00190**	**0.00400**	**mg/L**	1	15-Apr-2022 22:06
Beryllium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:06
Boron	**1.64**		**0.0550**	**0.100**	**mg/L**	5	18-Apr-2022 12:29
Cadmium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:06
Calcium	**53.8**		**0.0340**	**0.500**	**mg/L**	1	15-Apr-2022 22:06
Chromium	U		0.000400	0.00400	mg/L	1	15-Apr-2022 22:06
Cobalt	**0.000237**	J	**0.000200**	**0.00500**	**mg/L**	1	15-Apr-2022 22:06
Iron	**0.0435**	J	**0.0120**	**0.200**	**mg/L**	1	15-Apr-2022 22:06
Lead	U		0.000600	0.00200	mg/L	1	15-Apr-2022 22:06
Lithium	**0.0654**		**0.00100**	**0.00500**	**mg/L**	1	15-Apr-2022 22:06
Magnesium	**5.79**		**0.0100**	**0.200**	**mg/L**	1	15-Apr-2022 22:06
Molybdenum	**0.00257**	J	**0.000600**	**0.00500**	**mg/L**	1	15-Apr-2022 22:06
Potassium	**3.74**		**0.0180**	**0.200**	**mg/L**	1	15-Apr-2022 22:06
Selenium	U		0.00110	0.00200	mg/L	1	15-Apr-2022 22:06
Sodium	**341**		**0.0700**	**1.00**	**mg/L**	5	18-Apr-2022 12:29
Thallium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:06
DISSOLVED METALS BY SW6020A		**Method:SW6020A (dissolved)**			Prep:SW3010A / 13-Apr-2022		Analyst: JC
Iron	U		0.0120	0.200	mg/L	1	13-Apr-2022 19:55
Molybdenum	**0.00248**	J	**0.000600**	**0.00500**	**mg/L**	1	13-Apr-2022 19:55
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 13-Apr-2022		Analyst: MSC
Mercury	U		0.0000300	0.000200	mg/L	1	13-Apr-2022 14:23
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: YP
Chloride	**23.0**		**2.00**	**5.00**	**mg/L**	10	12-Apr-2022 22:17
Fluoride	**3.24**		**0.500**	**1.00**	**mg/L**	10	12-Apr-2022 22:17
Nitrogen, Nitrate (As N)	**705**		**3.00**	**10.0**	**mg/L**	100	02-Apr-2022 13:24
Sulfate	**1,540**		**20.0**	**50.0**	**mg/L**	100	04-Apr-2022 15:52
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	13-Apr-2022 17:00
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: TH
Specific Conductivity	**15,600**		**50.0**	**50.0**	**umhos/cm @ 25.0 °C**	10	07-Apr-2022 10:00

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: MW-5S
Collection Date: 31-Mar-2022 15:31

ANALYTICAL REPORT
WorkOrder:HS22040016
Lab ID:HS22040016-05
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)	**1,540**		**5.00**	**10.0**	**mg/L**	1	05-Apr-2022 15:25
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: TH
Alkalinity, Bicarbonate (As CaCO3)	U		5.00	5.00	mg/L	1	12-Apr-2022 15:55
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	12-Apr-2022 15:55
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	12-Apr-2022 15:55
Alkalinity, Total (As CaCO3)	U		5.00	5.00	mg/L	1	12-Apr-2022 15:55
FERROUS IRON BY SM3500 FE B		**Method:SM3500FED**					Analyst: AP
Ferrous Iron	U		0.0200	0.0500	mg/L	1	02-Apr-2022 13:40
FERROUS IRON BY SM3500 FE D		**Method:SM3500FED (dissolved)**					Analyst: AP
Ferrous Iron, Dissolved	U		0.0200	0.0500	mg/L	1	02-Apr-2022 14:00
SULFIDE BY SM4500 S2-F-2011		**Method:SM4500 S2-F**					Analyst: JHD
Sulfide	U		1.00	1.00	mg/L	1	06-Apr-2022 17:00
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: MZD
pH	**1.68**	H	**0.100**	**0.100**	**pH Units**	1	14-Apr-2022 14:15
Temp Deg C @pH	**24.4**	H	**0**	**0**	**°C**	1	14-Apr-2022 14:15
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	29-Apr-2022 10:16
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	29-Apr-2022 10:16

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: MW-7S
Collection Date: 01-Apr-2022 19:29

ANALYTICAL REPORT
WorkOrder:HS22040016
Lab ID:HS22040016-06
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	19-Apr-2022 10:04
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		**Method:SM3500FED (dissolved)**					Analyst: JHD
Ferric Iron, Dissolved	U		0.0200	0.0500	mg/L	1	19-Apr-2022 10:07
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 13-Apr-2022		Analyst: JC
Antimony	U		0.000400	0.00200	mg/L	1	15-Apr-2022 22:10
Arsenic	U		0.000400	0.00200	mg/L	1	15-Apr-2022 22:10
Barium	**0.0336**		**0.00190**	**0.00400**	**mg/L**	1	15-Apr-2022 22:10
Beryllium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:10
Boron	**0.646**		**0.0110**	**0.0200**	**mg/L**	1	15-Apr-2022 22:10
Cadmium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:10
Calcium	**302**		**0.340**	**5.00**	**mg/L**	10	18-Apr-2022 12:31
Chromium	**0.000494**	J	**0.000400**	**0.00400**	**mg/L**	1	15-Apr-2022 22:10
Cobalt	**0.00110**	J	**0.000200**	**0.00500**	**mg/L**	1	15-Apr-2022 22:10
Iron	U		0.0120	0.200	mg/L	1	15-Apr-2022 22:10
Lead	U		0.000600	0.00200	mg/L	1	15-Apr-2022 22:10
Lithium	**0.0533**		**0.00100**	**0.00500**	**mg/L**	1	15-Apr-2022 22:10
Magnesium	**20.0**		**0.0100**	**0.200**	**mg/L**	1	15-Apr-2022 22:10
Molybdenum	**0.000973**	J	**0.000600**	**0.00500**	**mg/L**	1	15-Apr-2022 22:10
Potassium	**4.56**		**0.0180**	**0.200**	**mg/L**	1	15-Apr-2022 22:10
Selenium	U		0.00110	0.00200	mg/L	1	15-Apr-2022 22:10
Sodium	**272**		**0.140**	**2.00**	**mg/L**	10	18-Apr-2022 12:31
Thallium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:10
DISSOLVED METALS BY SW6020A		**Method:SW6020A (dissolved)**			Prep:SW3010A / 13-Apr-2022		Analyst: JC
Iron	U		0.0120	0.200	mg/L	1	13-Apr-2022 19:57
Molybdenum	**0.000830**	J	**0.000600**	**0.00500**	**mg/L**	1	13-Apr-2022 19:57
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 13-Apr-2022		Analyst: MSC
Mercury	U		0.0000300	0.000200	mg/L	1	13-Apr-2022 14:24
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: YP
Chloride	**19.9**		**0.200**	**0.500**	**mg/L**	1	02-Apr-2022 13:30
Fluoride	**0.515**		**0.0500**	**0.100**	**mg/L**	1	02-Apr-2022 13:30
Nitrogen, Nitrate (As N)	**0.0613**	J	**0.0300**	**0.100**	**mg/L**	1	02-Apr-2022 13:30
Sulfate	**1,190**		**10.0**	**25.0**	**mg/L**	50	12-Apr-2022 21:50
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	13-Apr-2022 17:00
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: TH
Specific Conductivity	**2,530**		**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	07-Apr-2022 15:00

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: MW-7S
Collection Date: 01-Apr-2022 19:29

ANALYTICAL REPORT
WorkOrder:HS22040016
Lab ID:HS22040016-06
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)	**1,920**		**5.00**	**10.0**	**mg/L**	1	08-Apr-2022 14:43
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: TH
Alkalinity, Bicarbonate (As CaCO3)	**205**		**5.00**	**5.00**	**mg/L**	1	12-Apr-2022 16:18
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	12-Apr-2022 16:18
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	12-Apr-2022 16:18
Alkalinity, Total (As CaCO3)	**205**		**5.00**	**5.00**	**mg/L**	1	12-Apr-2022 16:18
FERROUS IRON BY SM3500 FE B		**Method:SM3500FED**					Analyst: AP
Ferrous Iron	U		0.0200	0.0500	mg/L	1	02-Apr-2022 13:40
FERROUS IRON BY SM3500 FE D		**Method:SM3500FED (dissolved)**					Analyst: AP
Ferrous Iron, Dissolved	U		0.0200	0.0500	mg/L	1	02-Apr-2022 14:00
SULFIDE BY SM4500 S2-F-2011		**Method:SM4500 S2-F**					Analyst: JHD
Sulfide	U		1.00	1.00	mg/L	1	08-Apr-2022 17:00
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: MZD
pH	**7.88**	H	**0.100**	**0.100**	**pH Units**	1	14-Apr-2022 14:15
Temp Deg C @pH	**21.3**	H	**0**	**0**	**°C**	1	14-Apr-2022 14:15
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	29-Apr-2022 10:16
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	29-Apr-2022 10:16

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: MW-13
Collection Date: 01-Apr-2022 11:54

ANALYTICAL REPORT
WorkOrder:HS22040016
Lab ID:HS22040016-07
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 13-Apr-2022		Analyst: JC
Antimony	U		0.000400	0.00200	mg/L	1	15-Apr-2022 22:12
Arsenic	**0.000569**	J	**0.000400**	**0.00200**	**mg/L**	1	15-Apr-2022 22:12
Barium	**0.0104**		**0.00190**	**0.00400**	**mg/L**	1	15-Apr-2022 22:12
Beryllium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:12
Boron	**3.00**		**0.0550**	**0.100**	**mg/L**	5	18-Apr-2022 12:32
Cadmium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:12
Calcium	**116**		**0.0340**	**0.500**	**mg/L**	1	15-Apr-2022 22:12
Chromium	U		0.000400	0.00400	mg/L	1	15-Apr-2022 22:12
Cobalt	**0.000435**	J	**0.000200**	**0.00500**	**mg/L**	1	15-Apr-2022 22:12
Lead	U		0.000600	0.00200	mg/L	1	15-Apr-2022 22:12
Lithium	**0.120**		**0.00100**	**0.00500**	**mg/L**	1	15-Apr-2022 22:12
Molybdenum	**0.00117**	J	**0.000600**	**0.00500**	**mg/L**	1	15-Apr-2022 22:12
Selenium	U		0.00110	0.00200	mg/L	1	15-Apr-2022 22:12
Thallium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:12
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 13-Apr-2022		Analyst: MSC
Mercury	U		0.0000300	0.000200	mg/L	1	13-Apr-2022 14:33
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: YP
Chloride	**30.0**		**1.00**	**2.50**	**mg/L**	5	02-Apr-2022 13:40
Fluoride	**0.453**	J	**0.250**	**0.500**	**mg/L**	5	02-Apr-2022 13:40
Nitrogen, Nitrate (As N)	**0.304**	J	**0.150**	**0.500**	**mg/L**	5	02-Apr-2022 13:40
Sulfate	**1,510**		**10.0**	**25.0**	**mg/L**	50	12-Apr-2022 21:24
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	13-Apr-2022 17:00
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: TH
Specific Conductivity	**3,840**		**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	07-Apr-2022 15:00
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: CWG
Total Dissolved Solids (Residue, Filterable)	**2,520**		**5.00**	**10.0**	**mg/L**	1	08-Apr-2022 14:43
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: MZD
pH	**7.91**	H	**0.100**	**0.100**	**pH Units**	1	14-Apr-2022 14:15
Temp Deg C @pH	**21.4**	H	**0**	**0**	**°C**	1	14-Apr-2022 14:15
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	29-Apr-2022 10:16
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	29-Apr-2022 10:16

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: MW-16
Collection Date: 01-Apr-2022 13:31

ANALYTICAL REPORT
WorkOrder:HS22040016
Lab ID:HS22040016-08
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	U		0.0200	0.0500	mg/L	1	19-Apr-2022 10:04
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		**Method:SM3500FED (dissolved)**					Analyst: JHD
Ferric Iron, Dissolved	U		0.0200	0.0500	mg/L	1	19-Apr-2022 10:07
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 13-Apr-2022		Analyst: JC
Antimony	U		0.000400	0.00200	mg/L	1	15-Apr-2022 22:20
Arsenic	U		0.000400	0.00200	mg/L	1	15-Apr-2022 22:20
Barium	**0.0127**		**0.00190**	**0.00400**	**mg/L**	1	15-Apr-2022 22:20
Beryllium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:20
Boron	**1.85**		**0.0550**	**0.100**	**mg/L**	5	18-Apr-2022 12:34
Cadmium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:20
Calcium	**153**		**0.0340**	**0.500**	**mg/L**	1	15-Apr-2022 22:20
Chromium	U		0.000400	0.00400	mg/L	1	15-Apr-2022 22:20
Cobalt	**0.000507**	J	**0.000200**	**0.00500**	**mg/L**	1	15-Apr-2022 22:20
Iron	**0.0158**	J	**0.0120**	**0.200**	**mg/L**	1	15-Apr-2022 22:20
Lead	U		0.000600	0.00200	mg/L	1	15-Apr-2022 22:20
Lithium	**0.0496**		**0.00100**	**0.00500**	**mg/L**	1	15-Apr-2022 22:20
Magnesium	**8.40**		**0.0100**	**0.200**	**mg/L**	1	15-Apr-2022 22:20
Molybdenum	**0.146**		**0.000600**	**0.00500**	**mg/L**	1	15-Apr-2022 22:20
Potassium	**3.58**		**0.0180**	**0.200**	**mg/L**	1	15-Apr-2022 22:20
Selenium	U		0.00110	0.00200	mg/L	1	15-Apr-2022 22:20
Sodium	**389**		**0.0700**	**1.00**	**mg/L**	5	18-Apr-2022 12:34
Thallium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:20
DISSOLVED METALS BY SW6020A		**Method:SW6020A (dissolved)**			Prep:SW3010A / 13-Apr-2022		Analyst: JC
Iron	U		0.0120	0.200	mg/L	1	13-Apr-2022 19:59
Molybdenum	**0.131**		**0.000600**	**0.00500**	**mg/L**	1	13-Apr-2022 19:59
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 13-Apr-2022		Analyst: MSC
Mercury	U		0.0000300	0.000200	mg/L	1	13-Apr-2022 14:35
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: YP
Chloride	**16.6**		**1.00**	**2.50**	**mg/L**	5	12-Apr-2022 22:22
Fluoride	**1.30**		**0.250**	**0.500**	**mg/L**	5	12-Apr-2022 22:22
Nitrogen, Nitrate (As N)	**50.4**		**1.50**	**5.00**	**mg/L**	50	02-Apr-2022 13:46
Sulfate	**1,100**		**10.0**	**25.0**	**mg/L**	50	04-Apr-2022 15:57
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	13-Apr-2022 17:00
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: TH
Specific Conductivity	**2,500**		**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	07-Apr-2022 15:00

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: MW-16
Collection Date: 01-Apr-2022 13:31

ANALYTICAL REPORT
WorkOrder:HS22040016
Lab ID:HS22040016-08
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)	**1,670**		**5.00**	**10.0**	**mg/L**	1	08-Apr-2022 14:43
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: TH
Alkalinity, Bicarbonate (As CaCO3)	**94.0**		**5.00**	**5.00**	**mg/L**	1	12-Apr-2022 16:25
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	12-Apr-2022 16:25
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	12-Apr-2022 16:25
Alkalinity, Total (As CaCO3)	**94.0**		**5.00**	**5.00**	**mg/L**	1	12-Apr-2022 16:25
FERROUS IRON BY SM3500 FE B		**Method:SM3500FED**					Analyst: AP
Ferrous Iron	U		0.0200	0.0500	mg/L	1	02-Apr-2022 13:08
FERROUS IRON BY SM3500 FE D		**Method:SM3500FED (dissolved)**					Analyst: AP
Ferrous Iron, Dissolved	U		0.0200	0.0500	mg/L	1	02-Apr-2022 13:14
SULFIDE BY SM4500 S2-F-2011		**Method:SM4500 S2-F**					Analyst: JHD
Sulfide	U		1.00	1.00	mg/L	1	08-Apr-2022 17:00
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: MZD
pH	**7.42**	H	**0.100**	**0.100**	**pH Units**	1	14-Apr-2022 14:15
Temp Deg C @pH	**21.2**	H	**0**	**0**	**°C**	1	14-Apr-2022 14:15
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	29-Apr-2022 10:16
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	29-Apr-2022 10:16

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: MW-17
Collection Date: 31-Mar-2022 17:22

ANALYTICAL REPORT
WorkOrder:HS22040016
Lab ID:HS22040016-09
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	**0.0325**	J	**0.0200**	**0.0500**	**mg/L**	1	19-Apr-2022 10:04
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		**Method:SM3500FED (dissolved)**					Analyst: JHD
Ferric Iron, Dissolved	U		0.0200	0.0500	mg/L	1	19-Apr-2022 10:07
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 13-Apr-2022		Analyst: JC
Antimony	U		0.000400	0.00200	mg/L	1	15-Apr-2022 22:22
Arsenic	**0.000582**	J	**0.000400**	**0.00200**	**mg/L**	1	15-Apr-2022 22:22
Barium	U		0.00190	0.00400	mg/L	1	15-Apr-2022 22:22
Beryllium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:22
Boron	**0.593**		**0.0110**	**0.0200**	**mg/L**	1	15-Apr-2022 22:22
Cadmium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:22
Calcium	**435**		**1.70**	**25.0**	**mg/L**	50	18-Apr-2022 12:42
Chromium	**0.00108**	J	**0.000400**	**0.00400**	**mg/L**	1	15-Apr-2022 22:22
Cobalt	**0.00148**	J	**0.000200**	**0.00500**	**mg/L**	1	15-Apr-2022 22:22
Iron	**0.0325**	J	**0.0120**	**0.200**	**mg/L**	1	15-Apr-2022 22:22
Lead	U		0.000600	0.00200	mg/L	1	15-Apr-2022 22:22
Lithium	**0.104**		**0.00100**	**0.00500**	**mg/L**	1	15-Apr-2022 22:22
Magnesium	**30.9**		**0.0100**	**0.200**	**mg/L**	1	15-Apr-2022 22:22
Molybdenum	U		0.000600	0.00500	mg/L	1	15-Apr-2022 22:22
Potassium	**4.50**		**0.0180**	**0.200**	**mg/L**	1	15-Apr-2022 22:22
Selenium	**0.00149**	J	**0.00110**	**0.00200**	**mg/L**	1	15-Apr-2022 22:22
Sodium	**35.2**		**0.0140**	**0.200**	**mg/L**	1	15-Apr-2022 22:22
Thallium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:22
DISSOLVED METALS BY SW6020A		**Method:SW6020A (dissolved)**			Prep:SW3010A / 13-Apr-2022		Analyst: JC
Iron	U		0.0120	0.200	mg/L	1	13-Apr-2022 20:01
Molybdenum	U		0.000600	0.00500	mg/L	1	13-Apr-2022 20:01
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 13-Apr-2022		Analyst: MSC
Mercury	U		0.0000300	0.000200	mg/L	1	13-Apr-2022 14:37
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: YP
Chloride	**5.24**		**1.00**	**2.50**	**mg/L**	5	02-Apr-2022 13:51
Fluoride	U		0.250	0.500	mg/L	5	02-Apr-2022 13:51
Nitrogen, Nitrate (As N)	**420**	H	**1.50**	**5.00**	**mg/L**	50	04-Apr-2022 15:36
Sulfate	**1,970**		**10.0**	**25.0**	**mg/L**	50	04-Apr-2022 15:36
CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993		**Method:E410.4**					Analyst: TH
Chemical Oxygen Demand	**8.00**	J	**5.00**	**15.0**	**mg/L**	1	13-Apr-2022 17:00
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: TH
Specific Conductivity	**11,900**		**25.0**	**25.0**	**umhos/cm @ 25.0 °C**	5	07-Apr-2022 15:00

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: MW-17
Collection Date: 31-Mar-2022 17:22

ANALYTICAL REPORT
WorkOrder:HS22040016
Lab ID:HS22040016-09
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)	**2,340**		**5.00**	**10.0**	**mg/L**	1	05-Apr-2022 15:25
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: TH
Alkalinity, Bicarbonate (As CaCO3)	U		5.00	5.00	mg/L	1	12-Apr-2022 16:28
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	12-Apr-2022 16:28
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	12-Apr-2022 16:28
Alkalinity, Total (As CaCO3)	U		5.00	5.00	mg/L	1	12-Apr-2022 16:28
FERROUS IRON BY SM3500 FE B		**Method:SM3500FED**					Analyst: AP
Ferrous Iron	U		0.0200	0.0500	mg/L	1	02-Apr-2022 13:40
FERROUS IRON BY SM3500 FE D		**Method:SM3500FED (dissolved)**					Analyst: AP
Ferrous Iron, Dissolved	U		0.0200	0.0500	mg/L	1	02-Apr-2022 14:00
SULFIDE BY SM4500 S2-F-2011		**Method:SM4500 S2-F**					Analyst: JHD
Sulfide	U		1.00	1.00	mg/L	1	06-Apr-2022 17:00
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: MZD
pH	**1.87**	H	**0.100**	**0.100**	**pH Units**	1	14-Apr-2022 14:15
Temp Deg C @pH	**21.3**	H	**0**	**0**	**°C**	1	14-Apr-2022 14:15
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	29-Apr-2022 10:16
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	29-Apr-2022 10:16

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: MW-18
Collection Date: 31-Mar-2022 17:08

ANALYTICAL REPORT
WorkOrder:HS22040016
Lab ID:HS22040016-10
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	19-Apr-2022 10:04
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		**Method:SM3500FED (dissolved)**					Analyst: JHD
Ferric Iron, Dissolved	U		0.0200	0.0500	mg/L	1	19-Apr-2022 10:07
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 13-Apr-2022		Analyst: JC
Antimony	U		0.000400	0.00200	mg/L	1	15-Apr-2022 22:26
Arsenic	**0.00290**		**0.000400**	**0.00200**	**mg/L**	1	15-Apr-2022 22:26
Barium	**0.00305**	J	**0.00190**	**0.00400**	**mg/L**	1	15-Apr-2022 22:26
Beryllium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:26
Boron	**4.65**		**0.110**	**0.200**	**mg/L**	10	18-Apr-2022 12:46
Cadmium	**0.000202**	J	**0.000200**	**0.00200**	**mg/L**	1	15-Apr-2022 22:26
Calcium	**23.9**		**0.0340**	**0.500**	**mg/L**	1	15-Apr-2022 22:26
Chromium	U		0.000400	0.00400	mg/L	1	15-Apr-2022 22:26
Cobalt	U		0.000200	0.00500	mg/L	1	15-Apr-2022 22:26
Iron	U		0.0120	0.200	mg/L	1	15-Apr-2022 22:26
Lead	U		0.000600	0.00200	mg/L	1	15-Apr-2022 22:26
Lithium	**0.00329**	J	**0.00100**	**0.00500**	**mg/L**	1	15-Apr-2022 22:26
Magnesium	**0.559**		**0.0100**	**0.200**	**mg/L**	1	15-Apr-2022 22:26
Molybdenum	**0.206**		**0.000600**	**0.00500**	**mg/L**	1	15-Apr-2022 22:26
Potassium	**14.6**		**0.0180**	**0.200**	**mg/L**	1	15-Apr-2022 22:26
Selenium	**0.00247**		**0.00110**	**0.00200**	**mg/L**	1	15-Apr-2022 22:26
Sodium	**391**		**0.140**	**2.00**	**mg/L**	10	18-Apr-2022 12:46
Thallium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:26
DISSOLVED METALS BY SW6020A		**Method:SW6020A (dissolved)**			Prep:SW3010A / 13-Apr-2022		Analyst: JC
Iron	U		0.0120	0.200	mg/L	1	13-Apr-2022 20:03
Molybdenum	**0.199**		**0.000600**	**0.00500**	**mg/L**	1	13-Apr-2022 20:03
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 13-Apr-2022		Analyst: MSC
Mercury	U		0.0000300	0.000200	mg/L	1	13-Apr-2022 14:38
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: YP
Chloride	**4.86**		**1.00**	**2.50**	**mg/L**	5	02-Apr-2022 13:56
Fluoride	**2.10**		**0.250**	**0.500**	**mg/L**	5	02-Apr-2022 13:56
Nitrogen, Nitrate (As N)	**0.712**		**0.150**	**0.500**	**mg/L**	5	02-Apr-2022 13:56
Sulfate	**837**		**10.0**	**25.0**	**mg/L**	50	12-Apr-2022 21:13
CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993		**Method:E410.4**					Analyst: TH
Chemical Oxygen Demand	**5.00**	J	**5.00**	**15.0**	**mg/L**	1	13-Apr-2022 17:00
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: TH
Specific Conductivity	**2,070**		**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	07-Apr-2022 15:00

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: MW-18
Collection Date: 31-Mar-2022 17:08

ANALYTICAL REPORT
WorkOrder:HS22040016
Lab ID:HS22040016-10
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)	**1,300**		**5.00**	**10.0**	**mg/L**	1	05-Apr-2022 15:25
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: TH
Alkalinity, Bicarbonate (As CaCO3)	U		5.00	5.00	mg/L	1	12-Apr-2022 16:36
Alkalinity, Carbonate (As CaCO3)	**58.6**		**5.00**	**5.00**	**mg/L**	1	12-Apr-2022 16:36
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	12-Apr-2022 16:36
Alkalinity, Total (As CaCO3)	**63.6**		**5.00**	**5.00**	**mg/L**	1	12-Apr-2022 16:36
FERROUS IRON BY SM3500 FE B		**Method:SM3500FED**					Analyst: AP
Ferrous Iron	U		0.0200	0.0500	mg/L	1	02-Apr-2022 13:40
FERROUS IRON BY SM3500 FE D		**Method:SM3500FED (dissolved)**					Analyst: AP
Ferrous Iron, Dissolved	U		0.0200	0.0500	mg/L	1	02-Apr-2022 14:00
SULFIDE BY SM4500 S2-F-2011		**Method:SM4500 S2-F**					Analyst: JHD
Sulfide	U		1.00	1.00	mg/L	1	06-Apr-2022 17:00
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: MZD
pH	**9.69**	H	**0.100**	**0.100**	**pH Units**	1	14-Apr-2022 14:15
Temp Deg C @pH	**22.4**	H	**0**	**0**	**°C**	1	14-Apr-2022 14:15
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	29-Apr-2022 10:16
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	29-Apr-2022 10:16

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: MW-19S
Collection Date: 01-Apr-2022 13:35

ANALYTICAL REPORT
WorkOrder:HS22040016
Lab ID:HS22040016-11
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	**0.0254**	J	**0.0200**	**0.0500**	**mg/L**	1	19-Apr-2022 10:04
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		**Method:SM3500FED (dissolved)**					Analyst: JHD
Ferric Iron, Dissolved	U		0.0200	0.0500	mg/L	1	19-Apr-2022 10:07
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 13-Apr-2022		Analyst: JC
Antimony	U		0.000400	0.00200	mg/L	1	15-Apr-2022 11:31
Arsenic	**0.00689**		**0.000400**	**0.00200**	**mg/L**	1	15-Apr-2022 11:31
Barium	**0.0189**		**0.00190**	**0.00400**	**mg/L**	1	15-Apr-2022 11:31
Beryllium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 11:31
Boron	**9.73**		**0.550**	**1.00**	**mg/L**	50	15-Apr-2022 13:44
Cadmium	**0.000380**	J	**0.000200**	**0.00200**	**mg/L**	1	15-Apr-2022 11:31
Calcium	**44.2**		**0.0340**	**0.500**	**mg/L**	1	15-Apr-2022 11:31
Chromium	**0.000829**	J	**0.000400**	**0.00400**	**mg/L**	1	15-Apr-2022 11:31
Cobalt	**0.000234**	J	**0.000200**	**0.00500**	**mg/L**	1	15-Apr-2022 11:31
Iron	**0.0554**	J	**0.0120**	**0.200**	**mg/L**	1	15-Apr-2022 11:31
Lead	U		0.000600	0.00200	mg/L	1	15-Apr-2022 11:31
Lithium	**0.00249**	J	**0.00100**	**0.00500**	**mg/L**	1	15-Apr-2022 11:31
Magnesium	**0.0836**	J	**0.0100**	**0.200**	**mg/L**	1	15-Apr-2022 11:31
Molybdenum	**0.445**		**0.000600**	**0.00500**	**mg/L**	1	15-Apr-2022 11:31
Potassium	**37.0**		**0.0180**	**0.200**	**mg/L**	1	15-Apr-2022 11:31
Selenium	**0.0127**		**0.00110**	**0.00200**	**mg/L**	1	15-Apr-2022 11:31
Sodium	**723**		**0.280**	**4.00**	**mg/L**	20	15-Apr-2022 13:21
Thallium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 11:31
DISSOLVED METALS BY SW6020A		**Method:SW6020A (dissolved)**			Prep:SW3010A / 13-Apr-2022		Analyst: JC
Iron	U		0.0120	0.200	mg/L	1	13-Apr-2022 19:37
Molybdenum	**0.406**		**0.000600**	**0.00500**	**mg/L**	1	13-Apr-2022 19:37
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 13-Apr-2022		Analyst: MSC
Mercury	U		0.0000300	0.000200	mg/L	1	13-Apr-2022 14:11
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: YP
Chloride	**14.6**		**0.400**	**1.00**	**mg/L**	2	02-Apr-2022 14:28
Fluoride	**1.66**		**0.100**	**0.200**	**mg/L**	2	02-Apr-2022 14:28
Nitrogen, Nitrate (As N)	**0.102**	J	**0.0600**	**0.200**	**mg/L**	2	02-Apr-2022 14:28
Sulfate	**1,420**		**4.00**	**10.0**	**mg/L**	20	12-Apr-2022 21:45
CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993		**Method:E410.4**					Analyst: TH
Chemical Oxygen Demand	**21.0**		**5.00**	**15.0**	**mg/L**	1	13-Apr-2022 17:00
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	07-Apr-2022 15:00

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: MW-19S
Collection Date: 01-Apr-2022 13:35

ANALYTICAL REPORT
WorkOrder:HS22040016
Lab ID:HS22040016-11
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)	**2,180**		**5.00**	**10.0**	**mg/L**	1	08-Apr-2022 14:43
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: TH
Alkalinity, Bicarbonate (As CaCO3)	U		5.00	5.00	mg/L	1	12-Apr-2022 14:02
Alkalinity, Carbonate (As CaCO3)	**53.6**		**5.00**	**5.00**	**mg/L**	1	12-Apr-2022 14:02
Alkalinity, Hydroxide (As CaCO3)	**82.4**		**5.00**	**5.00**	**mg/L**	1	12-Apr-2022 14:02
Alkalinity, Total (As CaCO3)	**136**		**5.00**	**5.00**	**mg/L**	1	12-Apr-2022 14:02
FERROUS IRON BY SM3500 FE B		**Method:SM3500FED**					Analyst: AP
Ferrous Iron	**0.0300**	J	**0.0200**	**0.0500**	**mg/L**	1	02-Apr-2022 13:08
FERROUS IRON BY SM3500 FE D		**Method:SM3500FED (dissolved)**					Analyst: AP
Ferrous Iron, Dissolved	**0.0290**	J	**0.0200**	**0.0500**	**mg/L**	1	02-Apr-2022 13:14
SULFIDE BY SM4500 S2-F-2011		**Method:SM4500 S2-F**					Analyst: JHD
Sulfide	U		1.00	1.00	mg/L	1	08-Apr-2022 17:00
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: MZD
pH	**10.8**	H	**0.100**	**0.100**	**pH Units**	1	14-Apr-2022 14:15
Temp Deg C @pH	**21.2**	H	**0**	**0**	**°C**	1	14-Apr-2022 14:15
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	29-Apr-2022 10:16
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	29-Apr-2022 10:16

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: MW-20
Collection Date: 31-Mar-2022 19:20

ANALYTICAL REPORT
WorkOrder:HS22040016
Lab ID:HS22040016-12
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 13-Apr-2022		Analyst: JC
Antimony	U		0.000400	0.00200	mg/L	1	15-Apr-2022 22:28
Arsenic	U		0.000400	0.00200	mg/L	1	15-Apr-2022 22:28
Barium	**0.0125**		**0.00190**	**0.00400**	**mg/L**	1	15-Apr-2022 22:28
Beryllium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:28
Boron	**0.550**		**0.0110**	**0.0200**	**mg/L**	1	15-Apr-2022 22:28
Cadmium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:28
Calcium	**324**		**0.680**	**10.0**	**mg/L**	20	18-Apr-2022 12:48
Chromium	**0.000674**	J	**0.000400**	**0.00400**	**mg/L**	1	15-Apr-2022 22:28
Cobalt	**0.00112**	J	**0.000200**	**0.00500**	**mg/L**	1	15-Apr-2022 22:28
Lead	U		0.000600	0.00200	mg/L	1	15-Apr-2022 22:28
Lithium	**0.0693**		**0.00100**	**0.00500**	**mg/L**	1	15-Apr-2022 22:28
Molybdenum	**0.000659**	J	**0.000600**	**0.00500**	**mg/L**	1	15-Apr-2022 22:28
Selenium	U		0.00110	0.00200	mg/L	1	15-Apr-2022 22:28
Thallium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:28
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 13-Apr-2022		Analyst: MSC
Mercury	U		0.0000300	0.000200	mg/L	1	13-Apr-2022 14:40
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: YP
Chloride	**8.67**		**2.00**	**5.00**	**mg/L**	10	12-Apr-2022 22:27
Fluoride	U		0.500	1.00	mg/L	10	12-Apr-2022 22:27
Nitrogen, Nitrate (As N)	**972**		**3.00**	**10.0**	**mg/L**	100	02-Apr-2022 14:44
Sulfate	**2,070**		**20.0**	**50.0**	**mg/L**	100	04-Apr-2022 16:02
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	13-Apr-2022 17:00
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: TH
Specific Conductivity	**23,700**		**50.0**	**50.0**	**umhos/cm @ 25.0 °C**	10	07-Apr-2022 15:00
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: CWG
Total Dissolved Solids (Residue, Filterable)	**1,940**		**5.00**	**10.0**	**mg/L**	1	05-Apr-2022 15:25
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: MZD
pH	**1.50**	H	**0.100**	**0.100**	**pH Units**	1	14-Apr-2022 14:15
Temp Deg C @pH	**22.3**	H	**0**	**0**	**°C**	1	14-Apr-2022 14:15
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	29-Apr-2022 10:16
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	29-Apr-2022 10:16

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: DUP 3
Collection Date: 31-Mar-2022 17:08

ANALYTICAL REPORT
WorkOrder:HS22040016
Lab ID:HS22040016-13
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	U		0.0200	0.0500	mg/L	1	19-Apr-2022 10:04
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		**Method:SM3500FED (dissolved)**					Analyst: JHD
Ferric Iron, Dissolved	U		0.0200	0.0500	mg/L	1	19-Apr-2022 10:07
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 13-Apr-2022		Analyst: JC
Antimony	U		0.000400	0.00200	mg/L	1	15-Apr-2022 22:32
Arsenic	**0.00302**		**0.000400**	**0.00200**	**mg/L**	1	15-Apr-2022 22:32
Barium	**0.00332**	J	**0.00190**	**0.00400**	**mg/L**	1	15-Apr-2022 22:32
Beryllium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:32
Boron	**5.06**		**0.110**	**0.200**	**mg/L**	10	18-Apr-2022 12:50
Cadmium	**0.000207**	J	**0.000200**	**0.00200**	**mg/L**	1	15-Apr-2022 22:32
Calcium	**25.3**		**0.0340**	**0.500**	**mg/L**	1	15-Apr-2022 22:32
Chromium	**0.000495**	J	**0.000400**	**0.00400**	**mg/L**	1	15-Apr-2022 22:32
Cobalt	U		0.000200	0.00500	mg/L	1	15-Apr-2022 22:32
Iron	U		0.0120	0.200	mg/L	1	15-Apr-2022 22:32
Lead	U		0.000600	0.00200	mg/L	1	15-Apr-2022 22:32
Lithium	**0.00347**	J	**0.00100**	**0.00500**	**mg/L**	1	15-Apr-2022 22:32
Magnesium	**0.587**		**0.0100**	**0.200**	**mg/L**	1	15-Apr-2022 22:32
Molybdenum	**0.222**		**0.000600**	**0.00500**	**mg/L**	1	15-Apr-2022 22:32
Potassium	**15.3**		**0.0180**	**0.200**	**mg/L**	1	15-Apr-2022 22:32
Selenium	**0.00157**	J	**0.00110**	**0.00200**	**mg/L**	1	15-Apr-2022 22:32
Sodium	**406**		**0.140**	**2.00**	**mg/L**	10	18-Apr-2022 12:50
Thallium	U		0.000200	0.00200	mg/L	1	15-Apr-2022 22:32
DISSOLVED METALS BY SW6020A		**Method:SW6020A (dissolved)**			Prep:SW3010A / 13-Apr-2022		Analyst: JC
Iron	U		0.0120	0.200	mg/L	1	13-Apr-2022 20:05
Molybdenum	**0.203**		**0.000600**	**0.00500**	**mg/L**	1	13-Apr-2022 20:05
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 13-Apr-2022		Analyst: MSC
Mercury	U		0.0000300	0.000200	mg/L	1	13-Apr-2022 14:42
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: YP
Chloride	**4.60**		**0.400**	**1.00**	**mg/L**	2	02-Apr-2022 14:49
Fluoride	**1.92**		**0.100**	**0.200**	**mg/L**	2	02-Apr-2022 14:49
Nitrogen, Nitrate (As N)	**0.146**	J	**0.0600**	**0.200**	**mg/L**	2	02-Apr-2022 14:49
Sulfate	**842**		**4.00**	**10.0**	**mg/L**	20	12-Apr-2022 21:19
CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993		**Method:E410.4**					Analyst: TH
Chemical Oxygen Demand	**5.00**	J	**5.00**	**15.0**	**mg/L**	1	13-Apr-2022 17:00
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: TH
Specific Conductivity	**2,080**		**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	07-Apr-2022 15:00

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: DUP 3
Collection Date: 31-Mar-2022 17:08

ANALYTICAL REPORT
WorkOrder:HS22040016
Lab ID:HS22040016-13
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)	**1,310**		**5.00**	**10.0**	**mg/L**	1	05-Apr-2022 15:25
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: TH
Alkalinity, Bicarbonate (As CaCO3)	**24.4**		**5.00**	**5.00**	**mg/L**	1	12-Apr-2022 16:43
Alkalinity, Carbonate (As CaCO3)	**64.7**		**5.00**	**5.00**	**mg/L**	1	12-Apr-2022 16:43
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	12-Apr-2022 16:43
Alkalinity, Total (As CaCO3)	**89.1**		**5.00**	**5.00**	**mg/L**	1	12-Apr-2022 16:43
FERROUS IRON BY SM3500 FE B		**Method:SM3500FED**					Analyst: AP
Ferrous Iron	U		0.0200	0.0500	mg/L	1	02-Apr-2022 13:40
FERROUS IRON BY SM3500 FE D		**Method:SM3500FED (dissolved)**					Analyst: AP
Ferrous Iron, Dissolved	U		0.0200	0.0500	mg/L	1	02-Apr-2022 14:00
SULFIDE BY SM4500 S2-F-2011		**Method:SM4500 S2-F**					Analyst: JHD
Sulfide	U		1.00	1.00	mg/L	1	06-Apr-2022 17:00
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: MZD
pH	**9.30**	H	**0.100**	**0.100**	**pH Units**	1	14-Apr-2022 14:15
Temp Deg C @pH	**22.8**	H	**0**	**0**	**°C**	1	14-Apr-2022 14:15
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	29-Apr-2022 10:16
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	29-Apr-2022 10:16

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

Weight / Prep Log

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

Batch ID: 177562 **Start Date:** 13 Apr 2022 09:00 **End Date:** 13 Apr 2022 19:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22040016-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-06		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-07		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-08		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-09		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-10		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-11		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-12		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-13		10 (mL)	10 (mL)	1	120 plastic HNO3

Batch ID: 177564 **Start Date:** 13 Apr 2022 10:00 **End Date:** 13 Apr 2022 14:00
Method: DISS METALS PREP - WATER - SW3010A **Prep Code:** 3010A DISS

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22040016-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-06		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-08		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-09		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-10		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-11		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-13		10 (mL)	10 (mL)	1	120 plastic HNO3

Batch ID: 177568 **Start Date:** 13 Apr 2022 08:00 **End Date:** 13 Apr 2022 11:00
Method: MERCURY PREP BY 7470A- WATER **Prep Code:** HG_WPR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22040016-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-06		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-07		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-08		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-09		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-10		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-11		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-12		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22040016-13		10 (mL)	10 (mL)	1	120 plastic HNO3

Revision: 1

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 177562 (0)	**Test Name :** ICP-MS METALS BY SW6020A				**Matrix:** Water	
HS22040016-01	MW-14A	30 Mar 2022 15:29		13 Apr 2022 09:00	18 Apr 2022 12:23	10
HS22040016-01	MW-14A	30 Mar 2022 15:29		13 Apr 2022 09:00	15 Apr 2022 21:58	1
HS22040016-02	MW-15A	30 Mar 2022 12:22		13 Apr 2022 09:00	18 Apr 2022 12:25	10
HS22040016-02	MW-15A	30 Mar 2022 12:22		13 Apr 2022 09:00	15 Apr 2022 22:00	1
HS22040016-03	MW-21	30 Mar 2022 17:33		13 Apr 2022 09:00	18 Apr 2022 12:19	10
HS22040016-03	MW-21	30 Mar 2022 17:33		13 Apr 2022 09:00	15 Apr 2022 11:41	1
HS22040016-04	MW-3	30 Mar 2022 15:51		13 Apr 2022 09:00	18 Apr 2022 12:27	5
HS22040016-04	MW-3	30 Mar 2022 15:51		13 Apr 2022 09:00	15 Apr 2022 22:04	1
HS22040016-05	MW-5S	31 Mar 2022 15:31		13 Apr 2022 09:00	18 Apr 2022 12:29	5
HS22040016-05	MW-5S	31 Mar 2022 15:31		13 Apr 2022 09:00	15 Apr 2022 22:06	1
HS22040016-06	MW-7S	01 Apr 2022 19:29		13 Apr 2022 09:00	18 Apr 2022 12:31	10
HS22040016-06	MW-7S	01 Apr 2022 19:29		13 Apr 2022 09:00	15 Apr 2022 22:10	1
HS22040016-07	MW-13	01 Apr 2022 11:54		13 Apr 2022 09:00	18 Apr 2022 12:32	5
HS22040016-07	MW-13	01 Apr 2022 11:54		13 Apr 2022 09:00	15 Apr 2022 22:12	1
HS22040016-08	MW-16	01 Apr 2022 13:31		13 Apr 2022 09:00	18 Apr 2022 12:34	5
HS22040016-08	MW-16	01 Apr 2022 13:31		13 Apr 2022 09:00	15 Apr 2022 22:20	1
HS22040016-09	MW-17	31 Mar 2022 17:22		13 Apr 2022 09:00	18 Apr 2022 12:42	50
HS22040016-09	MW-17	31 Mar 2022 17:22		13 Apr 2022 09:00	15 Apr 2022 22:22	1
HS22040016-10	MW-18	31 Mar 2022 17:08		13 Apr 2022 09:00	18 Apr 2022 12:46	10
HS22040016-10	MW-18	31 Mar 2022 17:08		13 Apr 2022 09:00	15 Apr 2022 22:26	1
HS22040016-11	MW-19S	01 Apr 2022 13:35		13 Apr 2022 09:00	15 Apr 2022 13:44	50
HS22040016-11	MW-19S	01 Apr 2022 13:35		13 Apr 2022 09:00	15 Apr 2022 13:21	20
HS22040016-11	MW-19S	01 Apr 2022 13:35		13 Apr 2022 09:00	15 Apr 2022 11:31	1
HS22040016-12	MW-20	31 Mar 2022 19:20		13 Apr 2022 09:00	18 Apr 2022 12:48	20
HS22040016-12	MW-20	31 Mar 2022 19:20		13 Apr 2022 09:00	15 Apr 2022 22:28	1
HS22040016-13	DUP 3	31 Mar 2022 17:08		13 Apr 2022 09:00	18 Apr 2022 12:50	10
HS22040016-13	DUP 3	31 Mar 2022 17:08		13 Apr 2022 09:00	15 Apr 2022 22:32	1
Batch ID: 177564 (0)	**Test Name :** DISSOLVED METALS BY SW6020A				**Matrix:** Water	
HS22040016-01	MW-14A	30 Mar 2022 15:29		13 Apr 2022 10:00	13 Apr 2022 19:51	1
HS22040016-02	MW-15A	30 Mar 2022 12:22		13 Apr 2022 10:00	13 Apr 2022 19:53	1
HS22040016-05	MW-5S	31 Mar 2022 15:31		13 Apr 2022 10:00	13 Apr 2022 19:55	1
HS22040016-06	MW-7S	01 Apr 2022 19:29		13 Apr 2022 10:00	13 Apr 2022 19:57	1
HS22040016-08	MW-16	01 Apr 2022 13:31		13 Apr 2022 10:00	13 Apr 2022 19:59	1
HS22040016-09	MW-17	31 Mar 2022 17:22		13 Apr 2022 10:00	13 Apr 2022 20:01	1
HS22040016-10	MW-18	31 Mar 2022 17:08		13 Apr 2022 10:00	13 Apr 2022 20:03	1
HS22040016-11	MW-19S	01 Apr 2022 13:35		13 Apr 2022 10:00	13 Apr 2022 19:37	1
HS22040016-13	DUP 3	31 Mar 2022 17:08		13 Apr 2022 10:00	13 Apr 2022 20:05	1

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Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

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Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 177568 (0)	**Test Name :** MERCURY BY SW7470A				**Matrix:** Water	
HS22040016-01	MW-14A	30 Mar 2022 15:29		13 Apr 2022 08:00	13 Apr 2022 14:16	1
HS22040016-02	MW-15A	30 Mar 2022 12:22		13 Apr 2022 08:00	13 Apr 2022 14:18	1
HS22040016-03	MW-21	30 Mar 2022 17:33		13 Apr 2022 08:00	13 Apr 2022 14:19	1
HS22040016-04	MW-3	30 Mar 2022 15:51		13 Apr 2022 08:00	13 Apr 2022 14:21	1
HS22040016-05	MW-5S	31 Mar 2022 15:31		13 Apr 2022 08:00	13 Apr 2022 14:23	1
HS22040016-06	MW-7S	01 Apr 2022 19:29		13 Apr 2022 08:00	13 Apr 2022 14:24	1
HS22040016-07	MW-13	01 Apr 2022 11:54		13 Apr 2022 08:00	13 Apr 2022 14:33	1
HS22040016-08	MW-16	01 Apr 2022 13:31		13 Apr 2022 08:00	13 Apr 2022 14:35	1
HS22040016-09	MW-17	31 Mar 2022 17:22		13 Apr 2022 08:00	13 Apr 2022 14:37	1
HS22040016-10	MW-18	31 Mar 2022 17:08		13 Apr 2022 08:00	13 Apr 2022 14:38	1
HS22040016-11	MW-19S	01 Apr 2022 13:35		13 Apr 2022 08:00	13 Apr 2022 14:11	1
HS22040016-12	MW-20	31 Mar 2022 19:20		13 Apr 2022 08:00	13 Apr 2022 14:40	1
HS22040016-13	DUP 3	31 Mar 2022 17:08		13 Apr 2022 08:00	13 Apr 2022 14:42	1
Batch ID: R405511 (0)	**Test Name :** FERROUS IRON BY SM3500 FE B				**Matrix:** Water	
HS22040016-01	MW-14A	30 Mar 2022 15:29			01 Apr 2022 12:05	1
HS22040016-02	MW-15A	30 Mar 2022 12:22			01 Apr 2022 12:05	1
Batch ID: R405513 (0)	**Test Name :** FERROUS IRON BY SM3500 FE D				**Matrix:** Water	
HS22040016-01	MW-14A	30 Mar 2022 15:29			01 Apr 2022 12:08	1
HS22040016-02	MW-15A	30 Mar 2022 12:22			01 Apr 2022 12:08	1
Batch ID: R405587 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS22040016-01	MW-14A	30 Mar 2022 15:29			01 Apr 2022 12:00	5
HS22040016-02	MW-15A	30 Mar 2022 12:22			01 Apr 2022 12:05	5
HS22040016-03	MW-21	30 Mar 2022 17:33			01 Apr 2022 12:10	50
HS22040016-04	MW-3	30 Mar 2022 15:51			01 Apr 2022 12:15	50
Batch ID: R405597 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS22040016-05	MW-5S	31 Mar 2022 15:31			02 Apr 2022 13:24	100
HS22040016-06	MW-7S	01 Apr 2022 19:29			02 Apr 2022 13:30	1
HS22040016-07	MW-13	01 Apr 2022 11:54			02 Apr 2022 13:40	5
HS22040016-08	MW-16	01 Apr 2022 13:31			02 Apr 2022 13:46	50
HS22040016-09	MW-17	31 Mar 2022 17:22			02 Apr 2022 13:51	5
HS22040016-10	MW-18	31 Mar 2022 17:08			02 Apr 2022 13:56	5
HS22040016-11	MW-19S	01 Apr 2022 13:35			02 Apr 2022 14:28	2
HS22040016-12	MW-20	31 Mar 2022 19:20			02 Apr 2022 14:44	100
HS22040016-13	DUP 3	31 Mar 2022 17:08			02 Apr 2022 14:49	2

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Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R405613 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS22040016-05	MW-5S	31 Mar 2022 15:31			04 Apr 2022 15:52	100
HS22040016-08	MW-16	01 Apr 2022 13:31			04 Apr 2022 15:57	50
HS22040016-09	MW-17	31 Mar 2022 17:22			04 Apr 2022 15:36	50
HS22040016-12	MW-20	31 Mar 2022 19:20			04 Apr 2022 16:02	100
Batch ID: R405615 (0)	**Test Name :** FERROUS IRON BY SM3500 FE B				**Matrix:** Water	
HS22040016-05	MW-5S	31 Mar 2022 15:31			02 Apr 2022 13:40	1
HS22040016-06	MW-7S	01 Apr 2022 19:29			02 Apr 2022 13:40	1
HS22040016-08	MW-16	01 Apr 2022 13:31			02 Apr 2022 13:08	1
HS22040016-09	MW-17	31 Mar 2022 17:22			02 Apr 2022 13:40	1
HS22040016-10	MW-18	31 Mar 2022 17:08			02 Apr 2022 13:40	1
HS22040016-11	MW-19S	01 Apr 2022 13:35			02 Apr 2022 13:08	1
HS22040016-13	DUP 3	31 Mar 2022 17:08			02 Apr 2022 13:40	1
Batch ID: R405619 (0)	**Test Name :** FERROUS IRON BY SM3500 FE D				**Matrix:** Water	
HS22040016-05	MW-5S	31 Mar 2022 15:31			02 Apr 2022 14:00	1
HS22040016-06	MW-7S	01 Apr 2022 19:29			02 Apr 2022 14:00	1
HS22040016-08	MW-16	01 Apr 2022 13:31			02 Apr 2022 13:14	1
HS22040016-09	MW-17	31 Mar 2022 17:22			02 Apr 2022 14:00	1
HS22040016-10	MW-18	31 Mar 2022 17:08			02 Apr 2022 14:00	1
HS22040016-11	MW-19S	01 Apr 2022 13:35			02 Apr 2022 13:14	1
HS22040016-13	DUP 3	31 Mar 2022 17:08			02 Apr 2022 14:00	1
Batch ID: R405818 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Water	
HS22040016-01	MW-14A	30 Mar 2022 15:29			05 Apr 2022 15:25	1
HS22040016-02	MW-15A	30 Mar 2022 12:22			05 Apr 2022 15:25	1
HS22040016-03	MW-21	30 Mar 2022 17:33			05 Apr 2022 15:25	1
HS22040016-04	MW-3	30 Mar 2022 15:51			05 Apr 2022 15:25	1
HS22040016-05	MW-5S	31 Mar 2022 15:31			05 Apr 2022 15:25	1
HS22040016-09	MW-17	31 Mar 2022 17:22			05 Apr 2022 15:25	1
HS22040016-10	MW-18	31 Mar 2022 17:08			05 Apr 2022 15:25	1
HS22040016-12	MW-20	31 Mar 2022 19:20			05 Apr 2022 15:25	1
HS22040016-13	DUP 3	31 Mar 2022 17:08			05 Apr 2022 15:25	1
Batch ID: R405864 (0)	**Test Name :** SPECIFIC CONDUCTANCE BY SM 2510B-2011				**Matrix:** Water	
HS22040016-01	MW-14A	30 Mar 2022 15:29			07 Apr 2022 10:00	1
HS22040016-02	MW-15A	30 Mar 2022 12:22			07 Apr 2022 10:00	1
HS22040016-03	MW-21	30 Mar 2022 17:33			07 Apr 2022 10:00	10
HS22040016-04	MW-3	30 Mar 2022 15:51			07 Apr 2022 10:00	10
HS22040016-05	MW-5S	31 Mar 2022 15:31			07 Apr 2022 10:00	10

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Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

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Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R405967 (0)	**Test Name :** SPECIFIC CONDUCTANCE BY SM 2510B-2011				**Matrix:** Water	
HS22040016-06	MW-7S	01 Apr 2022 19:29			07 Apr 2022 15:00	1
HS22040016-07	MW-13	01 Apr 2022 11:54			07 Apr 2022 15:00	1
HS22040016-08	MW-16	01 Apr 2022 13:31			07 Apr 2022 15:00	1
HS22040016-09	MW-17	31 Mar 2022 17:22			07 Apr 2022 15:00	5
HS22040016-10	MW-18	31 Mar 2022 17:08			07 Apr 2022 15:00	1
HS22040016-11	MW-19S	01 Apr 2022 13:35			07 Apr 2022 15:00	1
HS22040016-12	MW-20	31 Mar 2022 19:20			07 Apr 2022 15:00	10
HS22040016-13	DUP 3	31 Mar 2022 17:08			07 Apr 2022 15:00	1
Batch ID: R406135 (0)	**Test Name :** SULFIDE BY SM4500 S2-F-2011				**Matrix:** Water	
HS22040016-01	MW-14A	30 Mar 2022 15:29			06 Apr 2022 17:00	1
HS22040016-02	MW-15A	30 Mar 2022 12:22			06 Apr 2022 17:00	1
HS22040016-05	MW-5S	31 Mar 2022 15:31			06 Apr 2022 17:00	1
HS22040016-09	MW-17	31 Mar 2022 17:22			06 Apr 2022 17:00	1
HS22040016-10	MW-18	31 Mar 2022 17:08			06 Apr 2022 17:00	1
HS22040016-13	DUP 3	31 Mar 2022 17:08			06 Apr 2022 17:00	1
Batch ID: R406136 (0)	**Test Name :** SULFIDE BY SM4500 S2-F-2011				**Matrix:** Water	
HS22040016-06	MW-7S	01 Apr 2022 19:29			08 Apr 2022 17:00	1
HS22040016-08	MW-16	01 Apr 2022 13:31			08 Apr 2022 17:00	1
HS22040016-11	MW-19S	01 Apr 2022 13:35			08 Apr 2022 17:00	1
Batch ID: R406177 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Water	
HS22040016-06	MW-7S	01 Apr 2022 19:29			08 Apr 2022 14:43	1
HS22040016-07	MW-13	01 Apr 2022 11:54			08 Apr 2022 14:43	1
HS22040016-08	MW-16	01 Apr 2022 13:31			08 Apr 2022 14:43	1
HS22040016-11	MW-19S	01 Apr 2022 13:35			08 Apr 2022 14:43	1
Batch ID: R406334 (0)	**Test Name :** ALKALINITY BY SM 2320B-2011				**Matrix:** Water	
HS22040016-01	MW-14A	30 Mar 2022 15:29			12 Apr 2022 15:45	1
HS22040016-02	MW-15A	30 Mar 2022 12:22			12 Apr 2022 15:52	1
HS22040016-05	MW-5S	31 Mar 2022 15:31			12 Apr 2022 15:55	1
HS22040016-06	MW-7S	01 Apr 2022 19:29			12 Apr 2022 16:18	1
HS22040016-08	MW-16	01 Apr 2022 13:31			12 Apr 2022 16:25	1
HS22040016-09	MW-17	31 Mar 2022 17:22			12 Apr 2022 16:28	1
HS22040016-10	MW-18	31 Mar 2022 17:08			12 Apr 2022 16:36	1
HS22040016-11	MW-19S	01 Apr 2022 13:35			12 Apr 2022 14:02	1
HS22040016-13	DUP 3	31 Mar 2022 17:08			12 Apr 2022 16:43	1
Batch ID: R406347 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS22040016-01	MW-14A	30 Mar 2022 15:29			12 Apr 2022 19:54	50
HS22040016-02	MW-15A	30 Mar 2022 12:22			12 Apr 2022 19:43	50

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Project: WFEC CCR/Landfill
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Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R406349 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS22040016-03	MW-21	30 Mar 2022 17:33			12 Apr 2022 21:56	5
HS22040016-04	MW-3	30 Mar 2022 15:51			12 Apr 2022 22:11	5
HS22040016-05	MW-5S	31 Mar 2022 15:31			12 Apr 2022 22:17	10
HS22040016-06	MW-7S	01 Apr 2022 19:29			12 Apr 2022 21:50	50
HS22040016-07	MW-13	01 Apr 2022 11:54			12 Apr 2022 21:24	50
HS22040016-08	MW-16	01 Apr 2022 13:31			12 Apr 2022 22:22	5
HS22040016-10	MW-18	31 Mar 2022 17:08			12 Apr 2022 21:13	50
HS22040016-11	MW-19S	01 Apr 2022 13:35			12 Apr 2022 21:45	20
HS22040016-12	MW-20	31 Mar 2022 19:20			12 Apr 2022 22:27	10
HS22040016-13	DUP 3	31 Mar 2022 17:08			12 Apr 2022 21:19	20
Batch ID: R406426 (0)	**Test Name :** CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993				**Matrix:** Water	
HS22040016-01	MW-14A	30 Mar 2022 15:29			13 Apr 2022 17:00	1
HS22040016-02	MW-15A	30 Mar 2022 12:22			13 Apr 2022 17:00	1
HS22040016-03	MW-21	30 Mar 2022 17:33			13 Apr 2022 17:00	1
HS22040016-04	MW-3	30 Mar 2022 15:51			13 Apr 2022 17:00	1
HS22040016-05	MW-5S	31 Mar 2022 15:31			13 Apr 2022 17:00	1
HS22040016-06	MW-7S	01 Apr 2022 19:29			13 Apr 2022 17:00	1
HS22040016-07	MW-13	01 Apr 2022 11:54			13 Apr 2022 17:00	1
HS22040016-08	MW-16	01 Apr 2022 13:31			13 Apr 2022 17:00	1
HS22040016-09	MW-17	31 Mar 2022 17:22			13 Apr 2022 17:00	1
HS22040016-10	MW-18	31 Mar 2022 17:08			13 Apr 2022 17:00	1
HS22040016-11	MW-19S	01 Apr 2022 13:35			13 Apr 2022 17:00	1
HS22040016-12	MW-20	31 Mar 2022 19:20			13 Apr 2022 17:00	1
HS22040016-13	DUP 3	31 Mar 2022 17:08			13 Apr 2022 17:00	1
Batch ID: R406522 (0)	**Test Name :** PH BY SM4500H+ B-2011				**Matrix:** Water	
HS22040016-01	MW-14A	30 Mar 2022 15:29			14 Apr 2022 14:15	1
HS22040016-02	MW-15A	30 Mar 2022 12:22			14 Apr 2022 14:15	1
HS22040016-03	MW-21	30 Mar 2022 17:33			14 Apr 2022 14:15	1
HS22040016-04	MW-3	30 Mar 2022 15:51			14 Apr 2022 14:15	1
HS22040016-05	MW-5S	31 Mar 2022 15:31			14 Apr 2022 14:15	1
HS22040016-06	MW-7S	01 Apr 2022 19:29			14 Apr 2022 14:15	1
HS22040016-07	MW-13	01 Apr 2022 11:54			14 Apr 2022 14:15	1
HS22040016-08	MW-16	01 Apr 2022 13:31			14 Apr 2022 14:15	1
HS22040016-09	MW-17	31 Mar 2022 17:22			14 Apr 2022 14:15	1
HS22040016-10	MW-18	31 Mar 2022 17:08			14 Apr 2022 14:15	1
HS22040016-11	MW-19S	01 Apr 2022 13:35			14 Apr 2022 14:15	1
HS22040016-12	MW-20	31 Mar 2022 19:20			14 Apr 2022 14:15	1
HS22040016-13	DUP 3	31 Mar 2022 17:08			14 Apr 2022 14:15	1

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Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R406808 (0)	**Test Name :** FERRIC IRON - BY CALCULATION BY SM3500FED				**Matrix:** Water	
HS22040016-01	MW-14A	30 Mar 2022 15:29			19 Apr 2022 10:04	1
HS22040016-02	MW-15A	30 Mar 2022 12:22			19 Apr 2022 10:04	1
HS22040016-05	MW-5S	31 Mar 2022 15:31			19 Apr 2022 10:04	1
HS22040016-06	MW-7S	01 Apr 2022 19:29			19 Apr 2022 10:04	1
HS22040016-08	MW-16	01 Apr 2022 13:31			19 Apr 2022 10:04	1
HS22040016-09	MW-17	31 Mar 2022 17:22			19 Apr 2022 10:04	1
HS22040016-10	MW-18	31 Mar 2022 17:08			19 Apr 2022 10:04	1
HS22040016-11	MW-19S	01 Apr 2022 13:35			19 Apr 2022 10:04	1
HS22040016-13	DUP 3	31 Mar 2022 17:08			19 Apr 2022 10:04	1
Batch ID: R406809 (0)	**Test Name :** FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED				**Matrix:** Water	
HS22040016-01	MW-14A	30 Mar 2022 15:29			19 Apr 2022 10:07	1
HS22040016-02	MW-15A	30 Mar 2022 12:22			19 Apr 2022 10:07	1
HS22040016-05	MW-5S	31 Mar 2022 15:31			19 Apr 2022 10:07	1
HS22040016-06	MW-7S	01 Apr 2022 19:29			19 Apr 2022 10:07	1
HS22040016-08	MW-16	01 Apr 2022 13:31			19 Apr 2022 10:07	1
HS22040016-09	MW-17	31 Mar 2022 17:22			19 Apr 2022 10:07	1
HS22040016-10	MW-18	31 Mar 2022 17:08			19 Apr 2022 10:07	1
HS22040016-11	MW-19S	01 Apr 2022 13:35			19 Apr 2022 10:07	1
HS22040016-13	DUP 3	31 Mar 2022 17:08			19 Apr 2022 10:07	1

Client: Altamira
Project: WFEC CCR/Landfill
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DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R407617 (0)	**Test Name :** SUBCONTRACT ANALYSIS - RADIUM 228				**Matrix:** Water	
HS22040016-01	MW-14A	30 Mar 2022 15:29			29 Apr 2022 10:16	1
HS22040016-01	MW-14A	30 Mar 2022 15:29			29 Apr 2022 10:16	1
HS22040016-02	MW-15A	30 Mar 2022 12:22			29 Apr 2022 10:16	1
HS22040016-02	MW-15A	30 Mar 2022 12:22			29 Apr 2022 10:16	1
HS22040016-03	MW-21	30 Mar 2022 17:33			29 Apr 2022 10:16	1
HS22040016-03	MW-21	30 Mar 2022 17:33			29 Apr 2022 10:16	1
HS22040016-04	MW-3	30 Mar 2022 15:51			29 Apr 2022 10:16	1
HS22040016-04	MW-3	30 Mar 2022 15:51			29 Apr 2022 10:16	1
HS22040016-05	MW-5S	31 Mar 2022 15:31			29 Apr 2022 10:16	1
HS22040016-05	MW-5S	31 Mar 2022 15:31			29 Apr 2022 10:16	1
HS22040016-06	MW-7S	01 Apr 2022 19:29			29 Apr 2022 10:16	1
HS22040016-06	MW-7S	01 Apr 2022 19:29			29 Apr 2022 10:16	1
HS22040016-07	MW-13	01 Apr 2022 11:54			29 Apr 2022 10:16	1
HS22040016-07	MW-13	01 Apr 2022 11:54			29 Apr 2022 10:16	1
HS22040016-08	MW-16	01 Apr 2022 13:31			29 Apr 2022 10:16	1
HS22040016-08	MW-16	01 Apr 2022 13:31			29 Apr 2022 10:16	1
HS22040016-09	MW-17	31 Mar 2022 17:22			29 Apr 2022 10:16	1
HS22040016-09	MW-17	31 Mar 2022 17:22			29 Apr 2022 10:16	1
HS22040016-10	MW-18	31 Mar 2022 17:08			29 Apr 2022 10:16	1
HS22040016-10	MW-18	31 Mar 2022 17:08			29 Apr 2022 10:16	1
HS22040016-11	MW-19S	01 Apr 2022 13:35			29 Apr 2022 10:16	1
HS22040016-11	MW-19S	01 Apr 2022 13:35			29 Apr 2022 10:16	1
HS22040016-12	MW-20	31 Mar 2022 19:20			29 Apr 2022 10:16	1
HS22040016-12	MW-20	31 Mar 2022 19:20			29 Apr 2022 10:16	1
HS22040016-13	DUP 3	31 Mar 2022 17:08			29 Apr 2022 10:16	1
HS22040016-13	DUP 3	31 Mar 2022 17:08			29 Apr 2022 10:16	1

Revision: 1

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: 177562 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

MBLK Sample ID: **MBLK-177562** Units: **mg/L** Analysis Date: **15-Apr-2022 11:27**
Client ID: Run ID: **ICPMS06_406582** SeqNo: **6601705** PrepDate: **13-Apr-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	U	0.200								
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: HS22040016

QC BATCH REPORT

Batch ID: 177562 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

LCS Sample ID: **LCS-177562** Units: **mg/L** Analysis Date: **15-Apr-2022 11:29**
Client ID: Run ID: **ICPMS06_406582** SeqNo: **6601706** PrepDate: **13-Apr-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.05461	0.00200	0.05	0	109	80 - 120				
Arsenic	0.05663	0.00200	0.05	0	113	80 - 120				
Barium	0.05781	0.00400	0.05	0	116	80 - 120				
Beryllium	0.05509	0.00200	0.05	0	110	80 - 120				
Boron	0.5476	0.0200	0.5	0	110	80 - 120				
Cadmium	0.05888	0.00200	0.05	0	118	80 - 120				
Calcium	5.61	0.500	5	0	112	80 - 120				
Chromium	0.05701	0.00400	0.05	0	114	80 - 120				
Cobalt	0.05747	0.00500	0.05	0	115	80 - 120				
Iron	5.557	0.200	5	0	111	80 - 120				
Lead	0.05732	0.00200	0.05	0	115	80 - 120				
Lithium	0.1074	0.00500	0.1	0	107	80 - 120				
Magnesium	5.602	0.200	5	0	112	80 - 120				
Molybdenum	0.05534	0.00500	0.05	0	111	80 - 120				
Potassium	5.457	0.200	5	0	109	80 - 120				
Selenium	0.05661	0.00200	0.05	0	113	80 - 120				
Sodium	5.718	0.200	5	0	114	80 - 120				
Thallium	0.05418	0.00200	0.05	0	108	80 - 120				

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: 177562 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

MS Sample ID: **HS22040016-11MS** Units: **mg/L** Analysis Date: **15-Apr-2022 11:35**
Client ID: **MW-19S** Run ID: **ICPMS06_406582** SeqNo: **6601709** PrepDate: **13-Apr-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.05238	0.00200	0.05	0.00007	105	80 - 120				
Arsenic	0.06378	0.00200	0.05	0.00689	114	80 - 120				
Barium	0.07667	0.00400	0.05	0.01893	115	80 - 120				
Beryllium	0.05129	0.00200	0.05	0.000014	103	80 - 120				
Boron	8.491	0.0200	0.5	7.967	105	80 - 120				EO
Cadmium	0.05753	0.00200	0.05	0.00038	114	80 - 120				
Calcium	49.82	0.500	5	44.25	112	80 - 120				O
Chromium	0.05503	0.00400	0.05	0.000829	108	80 - 120				
Cobalt	0.05483	0.00500	0.05	0.000234	109	80 - 120				
Iron	5.418	0.200	5	0.0554	107	80 - 120				
Lead	0.05777	0.00200	0.05	0.00007	115	80 - 120				
Lithium	0.1019	0.00500	0.1	0.002491	99.4	80 - 120				
Magnesium	5.55	0.200	5	0.0836	109	80 - 120				
Molybdenum	0.5083	0.00500	0.05	0.4445	128	80 - 120				SO
Potassium	42.55	0.200	5	36.99	111	80 - 120				O
Selenium	0.06534	0.00200	0.05	0.01268	105	80 - 120				
Sodium	714	0.200	5	698.7	307	80 - 120				SEO
Thallium	0.05448	0.00200	0.05	0.000105	109	80 - 120				

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: 177562 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

MSD Sample ID: **HS22040016-11MSD** Units: **mg/L** Analysis Date: **15-Apr-2022 11:37**
Client ID: **MW-19S** Run ID: **ICPMS06_406582** SeqNo: **6601710** PrepDate: **13-Apr-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.05277	0.00200	0.05	0.00007	105	80 - 120	0.05238	0.728	20	
Arsenic	0.06379	0.00200	0.05	0.00689	114	80 - 120	0.06378	0.0172	20	
Barium	0.0769	0.00400	0.05	0.01893	116	80 - 120	0.07667	0.309	20	
Beryllium	0.05294	0.00200	0.05	0.000014	106	80 - 120	0.05129	3.18	20	
Boron	8.676	0.0200	0.5	7.967	142	80 - 120	8.491	2.15	20	SEO
Cadmium	0.05862	0.00200	0.05	0.00038	116	80 - 120	0.05753	1.87	20	
Calcium	50.04	0.500	5	44.25	116	80 - 120	49.82	0.431	20	O
Chromium	0.05532	0.00400	0.05	0.000829	109	80 - 120	0.05503	0.526	20	
Cobalt	0.05582	0.00500	0.05	0.000234	111	80 - 120	0.05483	1.78	20	
Iron	5.453	0.200	5	0.0554	108	80 - 120	5.418	0.633	20	
Lead	0.05764	0.00200	0.05	0.00007	115	80 - 120	0.05777	0.236	20	
Lithium	0.1051	0.00500	0.1	0.002491	103	80 - 120	0.1019	3.17	20	
Magnesium	5.606	0.200	5	0.0836	110	80 - 120	5.55	1.01	20	
Molybdenum	0.5137	0.00500	0.05	0.4445	138	80 - 120	0.5083	1.06	20	SO
Potassium	42.61	0.200	5	36.99	112	80 - 120	42.55	0.152	20	O
Selenium	0.06555	0.00200	0.05	0.01268	106	80 - 120	0.06534	0.318	20	
Sodium	724.5	0.200	5	698.7	516	80 - 120	714	1.46	20	SEO
Thallium	0.05456	0.00200	0.05	0.000105	109	80 - 120	0.05448	0.158	20	

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: 177562 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

PDS Sample ID: **HS22040016-11PDS** Units: **mg/L** Analysis Date: **15-Apr-2022 11:39**
Client ID: **MW-19S** Run ID: **ICPMS06_406582** SeqNo: **6601711** PrepDate: **13-Apr-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.1045	0.00200	0.1	0.00007	104	75 - 125				
Arsenic	0.1246	0.00200	0.1	0.00689	118	75 - 125				
Barium	0.1344	0.00400	0.1	0.01893	115	75 - 125				
Beryllium	0.1063	0.00200	0.1	0.000014	106	75 - 125				
Cadmium	0.1156	0.00200	0.1	0.00038	115	75 - 125				
Calcium	55.31	0.500	10	44.25	111	75 - 125				O
Chromium	0.1137	0.00400	0.1	0.000829	113	75 - 125				
Cobalt	0.115	0.00500	0.1	0.000234	115	75 - 125				
Iron	11.21	0.200	10	0.0554	112	75 - 125				
Lead	0.1155	0.00200	0.1	0.00007	115	75 - 125				
Lithium	0.1021	0.00500	0.1	0.002491	99.6	70 - 125				
Magnesium	11.55	0.200	10	0.0836	115	75 - 125				
Molybdenum	0.5555	0.00500	0.1	0.4445	111	75 - 125				O
Potassium	48.01	0.200	10	36.99	110	75 - 125				
Selenium	0.1298	0.00200	0.1	0.01268	117	75 - 125				
Thallium	0.1166	0.00200	0.1	0.000105	117	75 - 125				

PDS Sample ID: **HS22040016-11PDS** Units: **mg/L** Analysis Date: **15-Apr-2022 13:48**
Client ID: **MW-19S** Run ID: **ICPMS06_406582** SeqNo: **6602086** PrepDate: **13-Apr-2022** DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	37.33	1.00	25	9.733	110	75 - 125				

PDS Sample ID: **HS22040016-11PDS** Units: **mg/L** Analysis Date: **15-Apr-2022 13:25**
Client ID: **MW-19S** Run ID: **ICPMS06_406582** SeqNo: **6601951** PrepDate: **13-Apr-2022** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	909.3	4.00	200	722.7	93.3	75 - 125				

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: 177562 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

SD Sample ID: **HS22040016-11SD** Units: **mg/L** Analysis Date: **15-Apr-2022 11:33**
Client ID: **MW-19S** Run ID: **ICPMS06_406582** SeqNo: **6601708** PrepDate: **13-Apr-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					0.00007	0	10	
Arsenic	0.008546	0.0100					0.00689	0	10	J
Barium	0.01927	0.0200					0.01893	0	10	J
Beryllium	U	0.0100					0.000014	0	10	
Cadmium	U	0.0100					0.00038	0	10	
Calcium	45.55	2.50					44.25	2.95	10	
Chromium	U	0.0200					0.000829	0	10	
Cobalt	U	0.0250					0.000234	0	10	
Iron	U	1.00					0.0554	0	10	
Lead	U	0.0100					0.00007	0	10	
Lithium	0.007801	0.0250					0.002491	0	10	J
Magnesium	0.09471	1.00					0.0836	0	10	J
Molybdenum	0.4415	0.0250					0.4445	0.683	10	
Potassium	36.8	1.00					36.99	0.497	10	
Thallium	U	0.0100					0.000105	0	10	

SD Sample ID: **HS22040016-11SD** Units: **mg/L** Analysis Date: **15-Apr-2022 13:46**
Client ID: **MW-19S** Run ID: **ICPMS06_406582** SeqNo: **6602085** PrepDate: **13-Apr-2022** DF: **250**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Boron	10.11	5.00					9.733	3.9	10	

SD Sample ID: **HS22040016-11SD** Units: **mg/L** Analysis Date: **15-Apr-2022 13:23**
Client ID: **MW-19S** Run ID: **ICPMS06_406582** SeqNo: **6601950** PrepDate: **13-Apr-2022** DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Sodium	752.6	20.0					722.7	4.13	10	

The following samples were analyzed in this batch:

HS22040016-01	HS22040016-02	HS22040016-03	HS22040016-04
HS22040016-05	HS22040016-06	HS22040016-07	HS22040016-08
HS22040016-09	HS22040016-10	HS22040016-11	HS22040016-12
HS22040016-13			

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: 177564 (0) **Instrument:** ICPMS06 **Method:** DISSOLVED METALS BY SW6020A (DISSOLVED)

MBLK Sample ID: **MBLKF1-177564** Units: **mg/L** Analysis Date: **13-Apr-2022 19:33**
Client ID: Run ID: **ICPMS06_406386** SeqNo: **6597289** PrepDate: **13-Apr-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								

MBLK Sample ID: **MBLK-177564** Units: **mg/L** Analysis Date: **13-Apr-2022 19:31**
Client ID: Run ID: **ICPMS06_406386** SeqNo: **6597288** PrepDate: **13-Apr-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-177564** Units: **mg/L** Analysis Date: **13-Apr-2022 19:35**
Client ID: Run ID: **ICPMS06_406386** SeqNo: **6597290** PrepDate: **13-Apr-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	4.986	0.200	5	0	99.7	80 - 120				
Molybdenum	0.04944	0.00500	0.05	0	98.9	80 - 120				

MS Sample ID: **HS22040016-11MS** Units: **mg/L** Analysis Date: **13-Apr-2022 19:41**
Client ID: **MW-19S** Run ID: **ICPMS06_406386** SeqNo: **6597293** PrepDate: **13-Apr-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	4.804	0.200	5	0.003949	96.0	75 - 125				
Molybdenum	0.4547	0.00500	0.05	0.4058	97.8	75 - 125				O

MSD Sample ID: **HS22040016-11MSD** Units: **mg/L** Analysis Date: **13-Apr-2022 19:43**
Client ID: **MW-19S** Run ID: **ICPMS06_406386** SeqNo: **6597294** PrepDate: **13-Apr-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	4.847	0.200	5	0.003949	96.9	75 - 125	4.804	0.886	20	
Molybdenum	0.4494	0.00500	0.05	0.4058	87.2	75 - 125	0.4547	1.17	20	O

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: 177564 (0) **Instrument:** ICPMS06 **Method:** DISSOLVED METALS BY SW6020A (DISSOLVED)

PDS Sample ID: **HS22040016-11PDS** Units: **mg/L** Analysis Date: **13-Apr-2022 19:45**
Client ID: **MW-19S** Run ID: **ICPMS06_406386** SeqNo: **6597295** PrepDate: **13-Apr-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	10.02	0.200	10	0.003949	100	75 - 125				
Molybdenum	0.5021	0.00500	0.1	0.4058	96.2	75 - 125				O

SD Sample ID: **HS22040016-11SD** Units: **mg/L** Analysis Date: **13-Apr-2022 19:39**
Client ID: **MW-19S** Run ID: **ICPMS06_406386** SeqNo: **6597292** PrepDate: **13-Apr-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					0.003949	0	10	
Molybdenum	0.3954	0.0250					0.4058	2.58	10	

The following samples were analyzed in this batch:

HS22040016-01	HS22040016-02	HS22040016-05	HS22040016-06
HS22040016-08	HS22040016-09	HS22040016-10	HS22040016-11
HS22040016-13			

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: 177568 (0) **Instrument: HG03** **Method: MERCURY BY SW7470A**

MBLK Sample ID: **MBLK-177568** Units: **mg/L** Analysis Date: **13-Apr-2022 14:01**
Client ID: Run ID: **HG03_406365** SeqNo: **6596332** PrepDate: **13-Apr-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-177568** Units: **mg/L** Analysis Date: **13-Apr-2022 14:09**
Client ID: Run ID: **HG03_406365** SeqNo: **6596361** PrepDate: **13-Apr-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00508	0.000200	0.005	0	102	80 - 120				

MS Sample ID: **HS22040016-11MS** Units: **mg/L** Analysis Date: **13-Apr-2022 14:13**
Client ID: **MW-19S** Run ID: **HG03_406365** SeqNo: **6596363** PrepDate: **13-Apr-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00546	0.000200	0.005	-0.000019	110	75 - 125				

MSD Sample ID: **HS22040016-11MSD** Units: **mg/L** Analysis Date: **13-Apr-2022 14:14**
Client ID: **MW-19S** Run ID: **HG03_406365** SeqNo: **6596364** PrepDate: **13-Apr-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00587	0.000200	0.005	-0.000019	118	75 - 125	0.00546	7.24	20	

The following samples were analyzed in this batch:

HS22040016-01	HS22040016-02	HS22040016-03	HS22040016-04
HS22040016-05	HS22040016-06	HS22040016-07	HS22040016-08
HS22040016-09	HS22040016-10	HS22040016-11	HS22040016-12
HS22040016-13			

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: R405511 (0) **Instrument:** UV-2450 **Method:** FERROUS IRON BY SM3500 FE B

MBLK Sample ID: **MBLK-R405511** Units: **mg/L** Analysis Date: **01-Apr-2022 12:05**
Client ID: Run ID: **UV-2450_405511** SeqNo: **6575222** 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-R405511** Units: **mg/L** Analysis Date: **01-Apr-2022 12:05**
Client ID: Run ID: **UV-2450_405511** SeqNo: **6575221** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron	0.252	0.0500	0.25	0	101	80 - 120				

MS Sample ID: **HS22040016-01MS** Units: **mg/L** Analysis Date: **01-Apr-2022 12:05**
Client ID: **MW-14A** Run ID: **UV-2450_405511** SeqNo: **6575210** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron	0.377	0.0500	0.25	0.13	98.8	75 - 125				

MSD Sample ID: **HS22040016-01MSD** Units: **mg/L** Analysis Date: **01-Apr-2022 12:05**
Client ID: **MW-14A** Run ID: **UV-2450_405511** SeqNo: **6575209** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron	0.376	0.0500	0.25	0.13	98.4	75 - 125	0.377	0.266	20	

The following samples were analyzed in this batch: HS22040016-01 HS22040016-02

Revision: 1

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: R405513 (0) **Instrument:** UV-2450 **Method:** FERROUS IRON BY SM3500 FE D (DISSOLVED)

MBLK Sample ID: **MBLK-R405513** Units: **mg/L** Analysis Date: **01-Apr-2022 12:08**
Client ID: Run ID: **UV-2450_405513** SeqNo: **6575259** 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-R405513** Units: **mg/L** Analysis Date: **01-Apr-2022 12:08**
Client ID: Run ID: **UV-2450_405513** SeqNo: **6575258** PrepDate: DF: **1**

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

MS Sample ID: **HS22040016-01MS** Units: **mg/L** Analysis Date: **01-Apr-2022 12:08**
Client ID: **MW-14A** Run ID: **UV-2450_405513** SeqNo: **6575248** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron, Dissolved	0.391	0.0500	0.25	0.142	99.6	80 - 120				

MSD Sample ID: **HS22040016-01MSD** Units: **mg/L** Analysis Date: **01-Apr-2022 12:08**
Client ID: **MW-14A** Run ID: **UV-2450_405513** SeqNo: **6575247** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron, Dissolved	0.386	0.0500	0.25	0.142	97.6	80 - 120	0.391	1.29	20	

The following samples were analyzed in this batch: HS22040016-01 HS22040016-02

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: R405587 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0, REV 2.1, 1993**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **01-Apr-2022 14:12**
Client ID: Run ID: **ICS-Integrion_405587** SeqNo: **6577115** 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: **01-Apr-2022 14:17**
Client ID: Run ID: **ICS-Integrion_405587** SeqNo: **6577116** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	18.81	0.500	20	0	94.1	90 - 110				
Fluoride	4.258	0.100	4	0	106	90 - 110				
Nitrogen, Nitrate (As N)	3.704	0.100	4	0	92.6	90 - 110				
Sulfate	20.12	0.500	20	0	101	90 - 110				

MS Sample ID: **HS22031669-03MS** Units: **mg/L** Analysis Date: **01-Apr-2022 13:19**
Client ID: Run ID: **ICS-Integrion_405587** SeqNo: **6577108** PrepDate: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	76.29	2.50	50	26.4	99.8	80 - 120				
Fluoride	11.4	0.500	10	0.39	110	80 - 120				
Nitrogen, Nitrate (As N)	10.15	0.500	10	0.2935	98.5	80 - 120				
Sulfate	1711	2.50	50	1757	-92.1	80 - 120				SEO

MS Sample ID: **HS22031619-07MS** Units: **mg/L** Analysis Date: **01-Apr-2022 11:40**
Client ID: Run ID: **ICS-Integrion_405587** SeqNo: **6577093** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	516.3	25.0	500	9.05	101	80 - 120				
Fluoride	120.9	5.00	100	0.74	120	80 - 120				S
Nitrogen, Nitrate (As N)	308.9	5.00	100	234.5	74.4	80 - 120				S
Sulfate	1590	25.0	500	1588	0.525	80 - 120				S

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: R405587 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0, REV 2.1, 1993**

MSD Sample ID: **HS22031669-03MSD** Units: **mg/L** Analysis Date: **01-Apr-2022 13:24**
Client ID: Run ID: **ICS-Integrion_405587** SeqNo: **6577109** PrepDate: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	76.12	2.50	50	26.4	99.4	80 - 120	76.29	0.223	20	
Fluoride	11.92	0.500	10	0.39	115	80 - 120	11.4	4.47	20	
Nitrogen, Nitrate (As N)	10.11	0.500	10	0.2935	98.1	80 - 120	10.15	0.39	20	
Sulfate	1710	2.50	50	1757	-94.5	80 - 120	1711	0.0703	20	SEO

MSD Sample ID: **HS22031619-07MSD** Units: **mg/L** Analysis Date: **01-Apr-2022 11:46**
Client ID: Run ID: **ICS-Integrion_405587** SeqNo: **6577094** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	514.4	25.0	500	9.05	101	80 - 120	516.3	0.359	20	
Fluoride	109.7	5.00	100	0.74	109	80 - 120	120.9	9.69	20	
Nitrogen, Nitrate (As N)	307.4	5.00	100	234.5	72.9	80 - 120	308.9	0.482	20	S
Sulfate	1567	25.0	500	1588	-4.10	80 - 120	1590	1.47	20	S

The following samples were analyzed in this batch: HS22040016-01 HS22040016-02 HS22040016-03 HS22040016-04

Revision: 1

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: R405597 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **02-Apr-2022 12:21**
Client ID: Run ID: **ICS-Integrion_405597** SeqNo: **6577340** 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								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **02-Apr-2022 12:26**
Client ID: Run ID: **ICS-Integrion_405597** SeqNo: **6577341** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	18.94	0.500	20	0	94.7	90 - 110				
Fluoride	4.286	0.100	4	0	107	90 - 110				
Nitrogen, Nitrate (As N)	3.738	0.100	4	0	93.5	90 - 110				

MS Sample ID: **HS22040016-11MS** Units: **mg/L** Analysis Date: **02-Apr-2022 14:33**
Client ID: **MW-19S** Run ID: **ICS-Integrion_405597** SeqNo: **6577359** PrepDate: DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	35.33	1.00	20	14.58	104	80 - 120				
Fluoride	6	0.200	4	1.66	109	80 - 120				
Nitrogen, Nitrate (As N)	4.22	0.200	4	0.1016	103	80 - 120				

MS Sample ID: **HS22031669-10MS** Units: **mg/L** Analysis Date: **02-Apr-2022 12:37**
Client ID: Run ID: **ICS-Integrion_405597** SeqNo: **6577343** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	12.74	0.500	10	2.871	98.7	80 - 120				
Fluoride	2.756	0.100	2	0.506	112	80 - 120				
Nitrogen, Nitrate (As N)	2.169	0.100	2	0.2562	95.6	80 - 120				

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: R405597 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MSD Sample ID: **HS22040016-11MSD** Units: **mg/L** Analysis Date: **02-Apr-2022 14:38**
Client ID: **MW-19S** Run ID: **ICS-Integrion_405597** SeqNo: **6577360** PrepDate: DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	34.98	1.00	20	14.58	102	80 - 120	35.33	0.973	20	
Fluoride	5.888	0.200	4	1.66	106	80 - 120	6	1.89	20	
Nitrogen, Nitrate (As N)	4.176	0.200	4	0.1016	102	80 - 120	4.22	1.06	20	

MSD Sample ID: **HS22031669-10MSD** Units: **mg/L** Analysis Date: **02-Apr-2022 12:42**
Client ID: Run ID: **ICS-Integrion_405597** SeqNo: **6577344** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	12.98	0.500	10	2.871	101	80 - 120	12.74	1.84	20	
Fluoride	2.795	0.100	2	0.506	114	80 - 120	2.756	1.44	20	
Nitrogen, Nitrate (As N)	2.211	0.100	2	0.2562	97.7	80 - 120	2.169	1.91	20	

The following samples were analyzed in this batch:

HS22040016-05	HS22040016-06	HS22040016-07	HS22040016-08
HS22040016-09	HS22040016-10	HS22040016-11	HS22040016-12
HS22040016-13			

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: R405613 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0, REV 2.1, 1993**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **04-Apr-2022 11:08**
Client ID: Run ID: **ICS-Integrion_405613** SeqNo: **6577731** PrepDate: DF: **1**

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

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **04-Apr-2022 11:14**
Client ID: Run ID: **ICS-Integrion_405613** SeqNo: **6577732** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	3.704	0.100	4	0	92.6	90 - 110				
Sulfate	18.53	0.500	20	0	92.7	90 - 110				

MS Sample ID: **HS22040120-01MS** Units: **mg/L** Analysis Date: **04-Apr-2022 12:51**
Client ID: Run ID: **ICS-Integrion_405613** SeqNo: **6577738** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	7.436	0.100	2	5.535	95.1	80 - 120				
Sulfate	150.2	0.500	10	143.5	66.7	80 - 120				SEO

MS Sample ID: **HS22031336-03MS** Units: **mg/L** Analysis Date: **04-Apr-2022 19:54**
Client ID: Run ID: **ICS-Integrion_405613** SeqNo: **6578928** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	99.69	5.00	100	0.96	98.7	80 - 120				
Sulfate	1153	25.0	500	701.7	90.2	80 - 120				

MSD Sample ID: **HS22040120-01MSD** Units: **mg/L** Analysis Date: **04-Apr-2022 12:56**
Client ID: Run ID: **ICS-Integrion_405613** SeqNo: **6577739** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	7.441	0.100	2	5.535	95.3	80 - 120	7.436	0.0618	20	
Sulfate	150.3	0.500	10	143.5	67.3	80 - 120	150.2	0.0421	20	SEO

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: R405613 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0, REV 2.1, 1993**

MSD Sample ID: **HS22031336-03MSD** Units: **mg/L** Analysis Date: **04-Apr-2022 19:59**
Client ID: Run ID: **ICS-Integrion_405613** SeqNo: **6578929** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	99.14	5.00	100	0.96	98.2	80 - 120	99.69	0.558	20	
Sulfate	1149	25.0	500	701.7	89.5	80 - 120	1153	0.292	20	

The following samples were analyzed in this batch: HS22040016-05 HS22040016-08 HS22040016-09 HS22040016-12

Revision: 1

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: R405615 (0) **Instrument:** UV-2450 **Method:** FERROUS IRON BY SM3500 FE B

MBLK Sample ID: **MBLK-R405615** Units: **mg/L** Analysis Date: **02-Apr-2022 13:08**
Client ID: Run ID: **UV-2450_405615** SeqNo: **6577826** 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-R405615** Units: **mg/L** Analysis Date: **02-Apr-2022 13:08**
Client ID: Run ID: **UV-2450_405615** SeqNo: **6577825** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron	0.256	0.0500	0.25	0	102	80 - 120				

MS Sample ID: **HS22040016-11MS** Units: **mg/L** Analysis Date: **02-Apr-2022 13:08**
Client ID: **MW-19S** Run ID: **UV-2450_405615** SeqNo: **6577804** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron	0.276	0.0500	0.25	0.03	98.4	75 - 125				

MSD Sample ID: **HS22040016-11MSD** Units: **mg/L** Analysis Date: **02-Apr-2022 13:08**
Client ID: **MW-19S** Run ID: **UV-2450_405615** SeqNo: **6577803** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron	0.278	0.0500	0.25	0.03	99.2	75 - 125	0.276	0.722	20	

The following samples were analyzed in this batch:

HS22040016-05	HS22040016-06	HS22040016-08	HS22040016-09
HS22040016-10	HS22040016-11	HS22040016-13	

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: R405619 (0) **Instrument:** UV-2450 **Method:** FERROUS IRON BY SM3500 FE D (DISSOLVED)

MBLK Sample ID: **MBLK-R405619** Units: **mg/L** Analysis Date: **02-Apr-2022 13:14**
Client ID: Run ID: **UV-2450_405619** SeqNo: **6577938** 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-R405619** Units: **mg/L** Analysis Date: **02-Apr-2022 13:14**
Client ID: Run ID: **UV-2450_405619** SeqNo: **6577937** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron, Dissolved	0.259	0.0500	0.25	0	104	80 - 120				

MS Sample ID: **HS22040016-11MS** Units: **mg/L** Analysis Date: **02-Apr-2022 13:14**
Client ID: **MW-19S** Run ID: **UV-2450_405619** SeqNo: **6577928** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron, Dissolved	0.28	0.0500	0.25	0.029	100	80 - 120				

MSD Sample ID: **HS22040016-11MSD** Units: **mg/L** Analysis Date: **02-Apr-2022 13:14**
Client ID: **MW-19S** Run ID: **UV-2450_405619** SeqNo: **6577927** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron, Dissolved	0.271	0.0500	0.25	0.029	96.8	80 - 120	0.28	3.27	20	

The following samples were analyzed in this batch:

HS22040016-05	HS22040016-06	HS22040016-08	HS22040016-09
HS22040016-10	HS22040016-11	HS22040016-13	

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: R405818 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK Sample ID: **WBLK-040522** Units: **mg/L** Analysis Date: **05-Apr-2022 15:25**
Client ID: Run ID: **Balance1_405818** SeqNo: **6582474** 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-040522** Units: **mg/L** Analysis Date: **05-Apr-2022 15:25**
Client ID: Run ID: **Balance1_405818** SeqNo: **6582475** 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)	1070	10.0	1000	0	107	85 - 115				

DUP Sample ID: **HS22040009-02DUP** Units: **mg/L** Analysis Date: **05-Apr-2022 15:25**
Client ID: Run ID: **Balance1_405818** SeqNo: **6582464** 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)	2720	10.0					2700	0.738	5	

DUP Sample ID: **HS22031671-01DUP** Units: **mg/L** Analysis Date: **05-Apr-2022 15:25**
Client ID: Run ID: **Balance1_405818** SeqNo: **6582459** 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)	860	10.0					858	0.233	5	

The following samples were analyzed in this batch:

HS22040016-01	HS22040016-02	HS22040016-03	HS22040016-04
HS22040016-05	HS22040016-09	HS22040016-10	HS22040016-12
HS22040016-13			

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: R405864 (0) **Instrument:** WetChem_HS **Method:** SPECIFIC CONDUCTANCE BY SM 2510B-2011

MBLK Sample ID: **MBLK-R405864** Units: **umhos/cm @ 25.0 °C** Analysis Date: **07-Apr-2022 10:00**
Client ID: Run ID: **WetChem_HS_405864** SeqNo: **6584015** 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-R405864** Units: **umhos/cm @ 25.0 °C** Analysis Date: **07-Apr-2022 10:00**
Client ID: Run ID: **WetChem_HS_405864** SeqNo: **6584014** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	1436	5.00	1413	0	102	80 - 120				

DUP Sample ID: **HS22031619-07DUP** Units: **umhos/cm @ 25.0 °C** Analysis Date: **07-Apr-2022 10:00**
Client ID: Run ID: **WetChem_HS_405864** SeqNo: **6584016** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	4960	5.00					4980	0.402	20	

The following samples were analyzed in this batch: HS22040016-01 HS22040016-02 HS22040016-03 HS22040016-04 HS22040016-05

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: R405967 (0) **Instrument:** WetChem_HS **Method:** SPECIFIC CONDUCTANCE BY SM 2510B-2011

MBLK Sample ID: **MBLK-R405967** Units: **umhos/cm @ 25.0 °C** Analysis Date: **07-Apr-2022 15:00**
Client ID: Run ID: **WetChem_HS_405967** SeqNo: **6586926** 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-R405967** Units: **umhos/cm @ 25.0 °C** Analysis Date: **07-Apr-2022 15:00**
Client ID: Run ID: **WetChem_HS_405967** SeqNo: **6586925** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	1436	5.00	1413	0	102	80 - 120				

DUP Sample ID: **HS22040334-01DUP** Units: **umhos/cm @ 25.0 °C** Analysis Date: **07-Apr-2022 15:00**
Client ID: Run ID: **WetChem_HS_405967** SeqNo: **6586922** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	1381	5.00					1382	0.0724	20	

DUP Sample ID: **HS22040016-11DUP** Units: **umhos/cm @ 25.0 °C** Analysis Date: **07-Apr-2022 15:00**
Client ID: **MW-19S** Run ID: **WetChem_HS_405967** SeqNo: **6586921** 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:

HS22040016-06	HS22040016-07	HS22040016-08	HS22040016-09
HS22040016-10	HS22040016-11	HS22040016-12	HS22040016-13

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: R406135 (0) **Instrument: WetChem_HS** **Method: SULFIDE BY SM4500 S2-F-2011**

MBLK Sample ID: **MBLK-R406135** Units: **mg/L** Analysis Date: **06-Apr-2022 17:00**
Client ID: Run ID: **WetChem_HS_406135** SeqNo: **6591006** 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-R406135** Units: **mg/L** Analysis Date: **06-Apr-2022 17:00**
Client ID: Run ID: **WetChem_HS_406135** SeqNo: **6591005** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide	24.32	1.00	25	0	97.3	85 - 115				

LCSD Sample ID: **LCSD-R406135** Units: **mg/L** Analysis Date: **06-Apr-2022 17:00**
Client ID: Run ID: **WetChem_HS_406135** SeqNo: **6591004** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide	24.12	1.00	25	0	96.5	85 - 115	24.32	0.826	20	

MS Sample ID: **HS22031669-10MS** Units: **mg/L** Analysis Date: **06-Apr-2022 17:00**
Client ID: Run ID: **WetChem_HS_406135** SeqNo: **6591007** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide	23.92	1.00	25	-0.28	96.8	80 - 120				

The following samples were analyzed in this batch: HS22040016-01 HS22040016-02 HS22040016-05 HS22040016-09 HS22040016-10 HS22040016-13

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: R406136 (0) **Instrument:** WetChem_HS **Method:** SULFIDE BY SM4500 S2-F-2011

MBLK Sample ID: **MBLK-R406136** Units: **mg/L** Analysis Date: **08-Apr-2022 17:00**
Client ID: Run ID: **WetChem_HS_406136** SeqNo: **6591033** 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-R406136** Units: **mg/L** Analysis Date: **08-Apr-2022 17:00**
Client ID: Run ID: **WetChem_HS_406136** SeqNo: **6591032** 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				

LCSD Sample ID: **LCSD-R406136** Units: **mg/L** Analysis Date: **08-Apr-2022 17:00**
Client ID: Run ID: **WetChem_HS_406136** SeqNo: **6591031** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide	24.4	1.00	25	0	97.6	85 - 115	24.2	0.823	20	

MS Sample ID: **HS22040016-11MS** Units: **mg/L** Analysis Date: **08-Apr-2022 17:00**
Client ID: **MW-19S** Run ID: **WetChem_HS_406136** SeqNo: **6591034** 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	-0.2	96.8	80 - 120				

The following samples were analyzed in this batch: HS22040016-06 HS22040016-08 HS22040016-11

Revision: 1

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: R406177 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK Sample ID: **WBLK-040822** Units: **mg/L** Analysis Date: **08-Apr-2022 14:43**
Client ID: Run ID: **Balance1_406177** SeqNo: **6591663** 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-040822** Units: **mg/L** Analysis Date: **08-Apr-2022 14:43**
Client ID: Run ID: **Balance1_406177** SeqNo: **6591664** 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)	1050	10.0	1000	0	105	85 - 115				

DUP Sample ID: **HS22040016-11DUP** Units: **mg/L** Analysis Date: **08-Apr-2022 14:43**
Client ID: **MW-19S** Run ID: **Balance1_406177** SeqNo: **6591662** 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)	2168	10.0					2176	0.368	5	

The following samples were analyzed in this batch: HS22040016-06 HS22040016-07 HS22040016-08 HS22040016-11

Revision: 1

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: R406334 (0) **Instrument:** ManTech01 **Method:** ALKALINITY BY SM 2320B-2011

MBLK Sample ID: **WBLKW1-041222** Units: **mg/L** Analysis Date: **12-Apr-2022 13:36**
Client ID: Run ID: **ManTech01_406334** SeqNo: **6595225** 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: **LCS1-041222** Units: **mg/L** Analysis Date: **12-Apr-2022 13:45**
Client ID: Run ID: **ManTech01_406334** SeqNo: **6595226** 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)	998	5.00	1000	0	99.8	85 - 115				
Alkalinity, Total (As CaCO3)	1027	5.00	1000	0	103	85 - 115				

LCSD Sample ID: **LCSD1-041222** Units: **mg/L** Analysis Date: **12-Apr-2022 13:53**
Client ID: Run ID: **ManTech01_406334** SeqNo: **6595227** 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)	987.3	5.00	1000	0	98.7	85 - 115	998	1.08	20	
Alkalinity, Total (As CaCO3)	1014	5.00	1000	0	101	85 - 115	1027	1.23	20	

DUP Sample ID: **HS22040016-11DUP** Units: **mg/L** Analysis Date: **12-Apr-2022 14:10**
Client ID: **MW-19S** Run ID: **ManTech01_406334** SeqNo: **6595229** 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)	52.17	5.00					53.58	2.67	20	
Alkalinity, Hydroxide (As CaCO3)	82.97	5.00					82.4	0.689	20	
Alkalinity, Total (As CaCO3)	135.2	5.00					136	0.612	20	

The following samples were analyzed in this batch:

HS22040016-01	HS22040016-02	HS22040016-05	HS22040016-06
HS22040016-08	HS22040016-09	HS22040016-10	HS22040016-11
HS22040016-13			

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: R406347 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0, REV 2.1, 1993**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **12-Apr-2022 15:09**
Client ID: Run ID: **ICS-Integrion_406347** SeqNo: **6595485** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	U	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **12-Apr-2022 15:14**
Client ID: Run ID: **ICS-Integrion_406347** SeqNo: **6595486** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	19.54	0.500	20	0	97.7	90 - 110				

MS Sample ID: **HS22040585-02MS** Units: **mg/L** Analysis Date: **12-Apr-2022 15:30**
Client ID: Run ID: **ICS-Integrion_406347** SeqNo: **6595489** PrepDate: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	789.5	2.50	50	756.1	66.8	80 - 120				SEO

MS Sample ID: **HS22031669-01MS** Units: **mg/L** Analysis Date: **12-Apr-2022 19:33**
Client ID: Run ID: **ICS-Integrion_406347** SeqNo: **6595512** PrepDate: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	861.7	10.0	200	677.2	92.3	80 - 120				

MSD Sample ID: **HS22040585-02MSD** Units: **mg/L** Analysis Date: **12-Apr-2022 15:35**
Client ID: Run ID: **ICS-Integrion_406347** SeqNo: **6595490** PrepDate: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	787.5	2.50	50	756.1	62.9	80 - 120	789.5	0.245	20	SEO

MSD Sample ID: **HS22031669-01MSD** Units: **mg/L** Analysis Date: **12-Apr-2022 19:38**
Client ID: Run ID: **ICS-Integrion_406347** SeqNo: **6595513** PrepDate: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	862.2	10.0	200	677.2	92.5	80 - 120	861.7	0.0673	20	

The following samples were analyzed in this batch: HS22040016-01 HS22040016-02

Revision: 1

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: R406349 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **12-Apr-2022 18:30**
Client ID: Run ID: **ICS-Integrion_406349** SeqNo: **6595613** 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								
Sulfate	U	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **12-Apr-2022 18:35**
Client ID: Run ID: **ICS-Integrion_406349** SeqNo: **6595614** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.67	0.500	20	0	98.3	90 - 110				
Fluoride	4.382	0.100	4	0	110	90 - 110				
Sulfate	19.59	0.500	20	0	97.9	90 - 110				

MS Sample ID: **HS22040016-03MS** Units: **mg/L** Analysis Date: **12-Apr-2022 22:01**
Client ID: **MW-21** Run ID: **ICS-Integrion_406349** SeqNo: **6595638** PrepDate: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	72.82	2.50	50	22.98	99.7	80 - 120				
Fluoride	16.88	0.500	10	0.683	162	80 - 120				S
Sulfate	1635	2.50	50	1683	-95.5	80 - 120				SEO

MS Sample ID: **HS22031669-10MS** Units: **mg/L** Analysis Date: **12-Apr-2022 21:03**
Client ID: Run ID: **ICS-Integrion_406349** SeqNo: **6595628** PrepDate: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	200.5	10.0	200	2.76	98.9	80 - 120				
Fluoride	45.22	2.00	40	0	113	80 - 120				
Sulfate	1173	10.0	200	1011	81.0	80 - 120				O

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: R406349 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MSD Sample ID: **HS22040016-03MSD** Units: **mg/L** Analysis Date: **12-Apr-2022 22:06**
Client ID: **MW-21** Run ID: **ICS-Integrion_406349** SeqNo: **6595639** PrepDate: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	72.67	2.50	50	22.98	99.4	80 - 120	72.82	0.206	20	
Fluoride	18.19	0.500	10	0.683	175	80 - 120	16.88	7.46	20	S
Sulfate	1634	2.50	50	1683	-96.9	80 - 120	1635	0.0443	20	SEO

MSD Sample ID: **HS22031669-10MSD** Units: **mg/L** Analysis Date: **12-Apr-2022 21:08**
Client ID: Run ID: **ICS-Integrion_406349** SeqNo: **6595629** PrepDate: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	200.9	10.0	200	2.76	99.1	80 - 120	200.5	0.169	20	
Fluoride	43.32	2.00	40	0	108	80 - 120	45.22	4.3	20	
Sulfate	1171	10.0	200	1011	80.4	80 - 120	1173	0.104	20	O

The following samples were analyzed in this batch:

HS22040016-03	HS22040016-04	HS22040016-05	HS22040016-06
HS22040016-07	HS22040016-08	HS22040016-10	HS22040016-11
HS22040016-12	HS22040016-13		

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: R406426 (0) **Instrument:** WetChem_HS **Method:** CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993

MBLK Sample ID: **MBLK-R406426** Units: **mg/L** Analysis Date: **13-Apr-2022 17:00**
Client ID: Run ID: **WetChem_HS_406426** SeqNo: **6597070** 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-R406426** Units: **mg/L** Analysis Date: **13-Apr-2022 17:00**
Client ID: Run ID: **WetChem_HS_406426** SeqNo: **6597069** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	98	15.0	100	0	98.0	85 - 115				

MS Sample ID: **HS22040016-11MS** Units: **mg/L** Analysis Date: **13-Apr-2022 17:00**
Client ID: **MW-19S** Run ID: **WetChem_HS_406426** SeqNo: **6597072** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	68	15.0	50	21	94.0	80 - 120				

MSD Sample ID: **HS22040016-11MSD** Units: **mg/L** Analysis Date: **13-Apr-2022 17:00**
Client ID: **MW-19S** Run ID: **WetChem_HS_406426** SeqNo: **6597071** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	70	15.0	50	21	98.0	80 - 120	68	2.9	20	

The following samples were analyzed in this batch:

HS22040016-01	HS22040016-02	HS22040016-03	HS22040016-04
HS22040016-05	HS22040016-06	HS22040016-07	HS22040016-08
HS22040016-09	HS22040016-10	HS22040016-11	HS22040016-12
HS22040016-13			

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22040016

QC BATCH REPORT

Batch ID: R406522 (0) **Instrument:** WetChem_HS **Method:** PH BY SM4500H+ B-2011

DUP Sample ID: **HS22040016-11DUP** Units: **pH Units** Analysis Date: **14-Apr-2022 14:15**
Client ID: **MW-19S** Run ID: **WetChem_HS_406522** SeqNo: **6599273** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	10.78	0.100					10.81	0.278	10	
Temp Deg C @pH	21.3	0					21.2	0.471	10	

The following samples were analyzed in this batch:

HS22040016-01	HS22040016-02	HS22040016-03	HS22040016-04
HS22040016-05	HS22040016-06	HS22040016-07	HS22040016-08
HS22040016-09	HS22040016-10	HS22040016-11	HS22040016-12
HS22040016-13			

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: **HS22040016**

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
California	2919 2022-2023	30-Apr-2023
Dept of Defense	L21-682	31-Dec-2023
Florida	E87611-34	30-Jun-2022
Illinois	2000322022-9	09-May-2023
Kansas	E-10352 2021-2022	31-Jul-2022
Kentucky	123043, 2022-2023	30-Apr-2023
Louisiana	03087, 2021-2022	30-Jun-2022
Maryland	343, 2022-2023	30-Jun-2023
North Carolina	624-2022	31-Dec-2022
Oklahoma	2021-080	31-Aug-2022
Texas	T104704231-22-29	30-Apr-2023
Utah	TX026932021-12	30-Jul-2022

Sample Receipt Checklist

Work Order ID: HS22040016 **Date/Time Received:** **01-Apr-2022 09:40**

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

Completed By:	/S/ Nelson D. Dusara	01-Apr-2022 11:54	**Reviewed by:**	/S/ Ragen Giga	04-Apr-2022 18:47
	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):	1.6/1.4/1.2/1.5c	IR31
Cooler(s)/Kit(s):	47970,48021,Lg Red,47791	
Date/Time sample(s) sent to storage:	4/1/2022	

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: HS22040016 **Date/Time Received:** **01-Apr-2022 09:40**

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

Completed By:	/S/ Nilesh D. Ranchod	02-Apr-2022 12:57	**Reviewed by:**	/S/ Ragen Giga	02-Jun-2022 08:18
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **Water** Carrier name: **FedEx Priority Overnight**

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):	1.2C/1.7C,0.4C/0.9C,0.1C/0.6C,0.6C/1.1C,0.5C/1.0C,0.8C/1.3C UC/C	IR #31
Cooler(s)/Kit(s):	48469/46688/48595/43207/48469/RED	
Date/Time sample(s) sent to storage:	04/02/2022 13:00	

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:	Si Ma		

Login Notes: SX MW-5S, MW-16, MW-17 & MW-20 Radium 226 Metals pH>2 (7) Preserved with 4ml HNO3 on 4/2/2022 @12:00pm Lot # 318173210 By Sima After preservation pH (1)

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:	WFEE160022/0004
PROJECT NAME: (ALL WELLS ON SAME PO)	WFEC / CCR, LANDFILL
COC:	1 of X
CLIENT CONTACT:	HEATHER TIFFANY
CLIENT EMAIL:	HEATHER.TIFFANY, LABDATA @ ALTAMIRA-US.COM
CLIENT PHONE:	405.618.2021
LABORATORY / LAB PM:	ALS / RAGEN GIGA
CLIENT ADDRESS:	525 CENTRAL PARK DR #500 OKC, OK 73105
TAT:	STND
LAB ADDRESS:	10450 STANCLIFF RD #210 HOUSTON, TX 77099
SHIPMENT METHOD:	FEDEX
TRACKING:	

HS22040016
Altamira
WFEC CCR Landfill

PARAMETERS

NO.	SAMPLE DESCRIPTION	DATE	TIME	MATRIX	PRES.	NUMBER OF CONTAINERS	FIELD FILTERED (YES / NO)	APPENDIX A	APPENDIX B	NO3 AS N*	COD	SP COND.	Fe, TOTAL	Fe, FERROUS & Fe, FERRIC*	~~DISS FERROUS Fe*~~	DISS Fe, MN, FERRIC Fe	K, Mg, Na	SULFIDE	HCO3, CO3, TOTAL & HYDROXIDE ALK.	HOLD
1	~~MW-3~~				2,3,9		N	X	X	X	X	X								
2	~~MW-5S~~				1,2,3,4,9		Y	X	X	X	X	X	X	X	X	X	X	X	X	
3	~~MW-7S~~				1,2,3,4,9		Y	X	X	X	X	X	X	X	X	X	X	X	X	
4	~~MW-13~~				2,3,9		N	X	X	X	X	X								
5	MW-14A	3/30/22	1529	W	1,2,3,4,9		Y	X	X	X	X	X	X	X	X	X	X	X	X	
6	MW-15A	3/30/22	1222	W				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~~							X	X	X	X	X	X	X	X	X	X	X	X	
11	~~MW-20~~				2,3,9		N	X	X	X	X	X				47970		1.1°		
12	MW-21	3/30/22	1733	W	2,3,9		N	X	X	X	X	X				48021		0.9°		
13	MW-3	3/30/22	1551	W	2,3,9		N	X	X	X	X	X				[illegible]		0.7°		
14	Temp Blank			W												47791		1.0°		
15																				

SAMPLER(S) NAME: Bradley Van Cleave / Seth Brander	DATE: 3/31/22 TIME: 1400	Total # of Containers:	SAMPLER(S) SIGNATURE: [signatures] DATE: 3/31/22 TIME: 1400
RELINQUISHED BY: [signature]	DATE: 3/31/22 TIME: 1400	RECEIVED BY: [signature] DATE: 4/1/2022 TIME: 09:40	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

CHAIN OF CUSTODY RECORD

ALTAMIRA
formerly known as Enviro Clean Cardinal

PROJECT NUMBER: WFEE160022/0004

PROJECT NAME: (ALL WELLS ON SAME PO) WFEC/CCR, LANDFILL

COC : ____ of X

CLIENT CONTACT: HEATHER TIFFANY

CLIENT EMAIL: HEATHER.TIFFANY@ALTAMIRA-US.COM; LABDATA@ALTAMIRA-US.COM

CLIENT PHONE: 405.618.2021

LABORATORY / LAB PM: ALS/ RAGEN GICA

CLIENT ADDRESS: 525 CENTRAL PARK DR #500 OKC, OK 73105

TAT: STND

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

HS22040016
Altamira
WFEC CCR/Landfill

SHIPMENT METHOD: FEDEX

TRACKING:

NO.	SAMPLE DESCRIPTION					NUMBER OF CONTAINERS	FIELD FILTERED (YES / NO)	APPENDIX A	APPENDIX B	NO3 AS N *	COD	GR. COND	Fe, TOTAL	FERROUS & Fe, FERRIC *	DISSOLVED FERROUS Fe *	DISSOLVED Fe, Mn, Ferric Fe	K, Mg, Na	SULFIDE	HCO3, CO3, TOTAL ALKALINITY AS HYDROXIDE ALK	HOLD
1	~~MW-3~~			W	2,3,9		N	X	X	X	X	X								
2	MW-55	3/31/22	1531		1,23,4,9	10	Y	X	X	X	X	X	X	X	X	X	X	X	X	
3	MW-75	4/1/22	1929		1,2,3,4,9	10	Y	X	X	X	X	X	X	X	X	X	X	X	X	
4	MW-13	4/1/22	1154		2,3,9	6	N	X	X	X	X	X	X	X	X	X	X	X	X	
5	~~MW-14A~~				1,2,3,4,9		Y	X	X	X	X	X	X	X	X	X	X	X	X	
6	~~MW-15A~~				1,2,3,4,9			X	X	X	X	X	X	X	X	X	X	X	X	
7	MW-16	4/1/22	1331			10		X	X	X	X	X	X	X	X	X	X	X	X	
8	MW-17	3/31/22	1722			10		X	X	X	X	X	X	X	X	X	X	X	X	
9	MW-18	3/31/22	1708			10		X	X	X	X	X	X	X	X	X	X	X	X	
10	MW-19S	4/1/22	1335			10		X	X	X	X	X	X	X	X	X	X	X	X	
11	MW-20	3/31/22	1920		2,3,9	6	N	X	X	X	X	X								
12	~~MW-21~~				2,3,9		N	X	X	X	X	X								
13	MW-19S MS	4/1/22	1335			10														
14	MW-19S MSD	4/1/22	1335			10														
15	Dup 3	3/31/22	1708			10														

SAMPLER(S) NAME: Brad VanCleave/Seth Brayder

DATE: 4/1/22 TIME: 2000

Total # of Containers:

SAMPLER(S) SIGNATURE: Brad VanCleave / Seth Brayder

DATE: 4/1/22 TIME: 2050

RELINQUISHED BY: Brad VanClear DATE: 4/1/22 TIME: 2000

RECEIVED BY: DATE: 4-2-22 TIME: 09:45

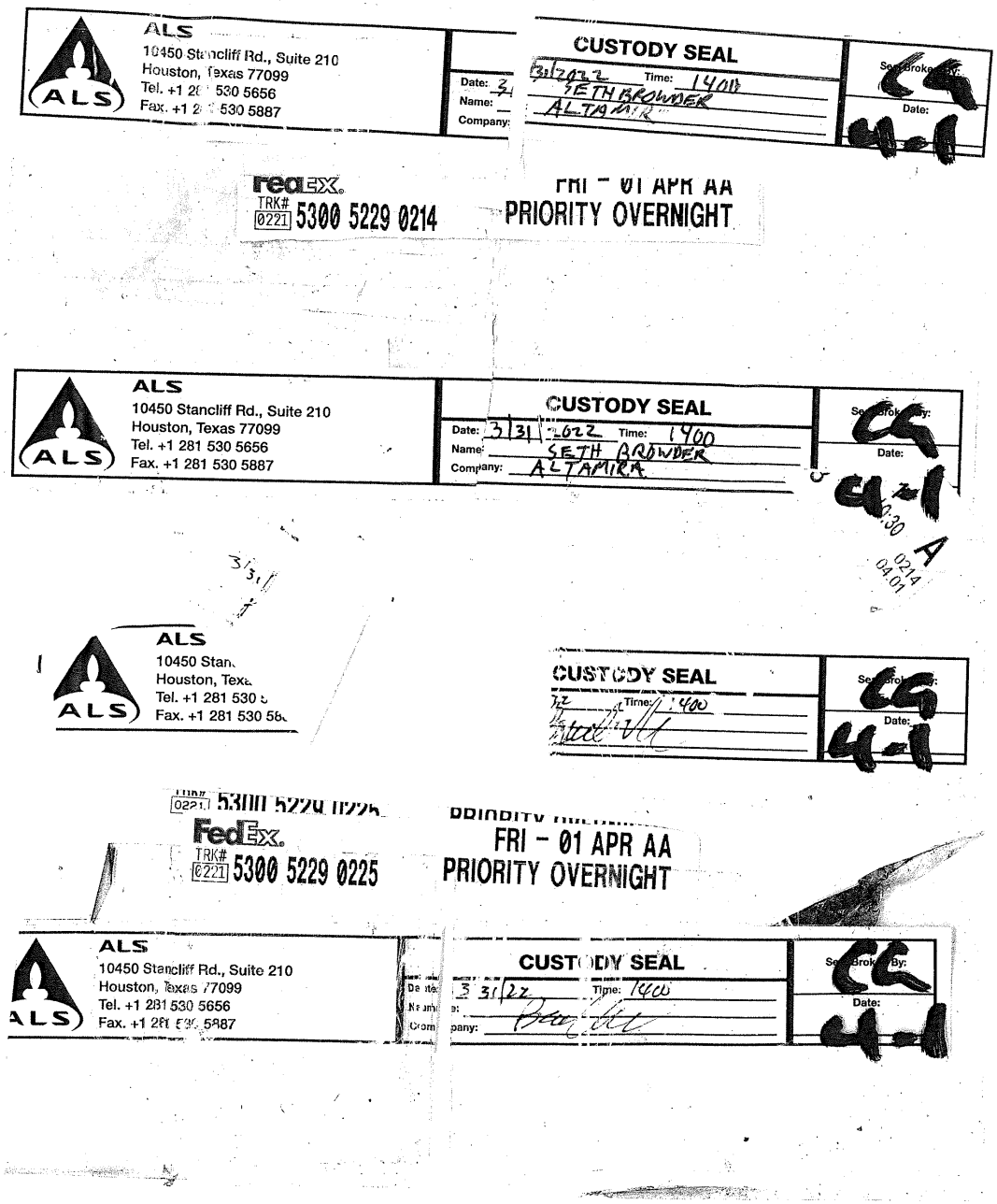
LOGGED BY: DATE: TIME:

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



FedEx
TRK# 0221 5300 5229 0008

FRI - 01 APR AA
PRIORITY OVERNIGHT

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

CUSTODY SEAL
Date: 3/31
Name:
Company:
Seal Broken
Date:

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

CUSTODY SEAL
Date: 3/31/22
Name:
Company:
Seal Broken
Date:

FedEx
TRK# 0221 5300 5228 9931

FRI - 01 APR AA
PRIORITY OVERNIGHT

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

CUSTODY SEAL
Date: 3/31/2022 Time: 1600
Name: SETH BROWDER
Company: ALTAMIRA
Seal Broken
Date:

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

CUSTODY SEAL
Date: 3/31/2022 Time: 1700
Name: SETH BROWDER
Company: ALTAMIRA
Seal Broken
Date:

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

48595

CUSTODY SEAL
Date: 4/1/22 Time: 2000
Name:
Company:

Seal Broken By:
Date: 04102122

48595 APR 0 2 2022

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

48595

CUSTODY SEAL
Date: 4/1/22 Time: 2000
Name:
Company:

Seal Broken By:
Date: 04102122

48595

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

NORMAN, OK 73069
UNITED STATES US

SHIP DATE: 14MAR22
ACTWGT: 1.00 LB MAN
CAD: 0221247/CAFE3512
DIMS: 26x14x14 IN

TO SHIPPING DEPT
ALS LABORATORY GROUP
10450 STANCLIFF RD
SUITE 210
HOUSTON TX 77099
(281) 530-5656
REF: CCR LANDFILL - BO84127 - RG
RMA:

FedEx Express

FedEx
TRK# 0221 5300 5229 0203

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO SGRA

77099
TX-US IAH

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

47503

CUSTODY SEAL
Date: 4/1/22 Time: 2000
Name: BV
Company:

Seal Broken By: SM
Date: 04/02/22

47503 APR 0 2 2022

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

47503

CUSTODY SEAL
Date: 4/1/22 Time: 2000
Name: BV
Company:

Seal Broken By: SM
Date: 04/02/22

47503

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

NORMAN, OK 73069
UNITED STATES US

SHIP DATE: 14MAR22
ACTWGT: 1.00 LB MAN
CAD: 0221247/CAFE3512
DIMS: 26x14x14 IN

TO SHIPPING DEPT
ALS LABORATORY GROUP
10450 STANCLIFF RD
SUITE 210
HOUSTON TX 77099
(281) 530-5656

REF: MNA WELLS - BO84128 - RG

RMA:

FedEx Express

FedEx
TRK# 0221 5300 5228 9942

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO SGRA

77099
TX-US IAH

#5262182 04/01 56DJ1/1E3B/FE00

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

43207

CUSTODY SEAL
Date: 4/1/22 Time: 2000
Name: BI
Company:

Seal Broken By: SM
Date: 04/02/22

43207 APR 0 2 2022

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

43207

CUSTODY SEAL
Date: 4/1/22 Time: 2000
Name:
Company:

Seal Broken By: SM
Date: 04/02/22

43207

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

NORMAN, OK 73069
UNITED STATES US

SHIP DATE: 14MAR22
ACTWGT: 1.00 LB MAN
CAD: 0221247/CAFE3512
DIMS: 26x14x14 IN

TO SHIPPING DEPT
ALS LABORATORY GROUP
10450 STANCLIFF RD
SUITE 210
HOUSTON TX 77099
(281) 530-5656
REF: CCR LANDFILL - BO84127 - RG

RMA:

FedEx Express

FedEx
TRK# 0221 5300 5229 0199

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO SGRA

77099
TX-US IAH

#5262182 04/01 56DJ1/1E3B/FE4A

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

Red

CUSTODY SEAL
Date: 4/1/22 Time: 3000
Name: BV
Company:

Seal Broken By:
Date: 04/02/22

Red APR 0 2 2022

FEDEX Saturday Delivery

151966 10/04 MWI

Red

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

NORMAN, OK 73069
UNITED STATES US

SHIP DATE: 14MAR22
ACTWGT: 1.00 LB MAN
CAD: 0221247/CAFE3512
DIMS: 19x16x13 IN

TO SHIPPING DEPT
ALS LABORATORY GROUP
10450 STANCLIFF RD
SUITE 210
HOUSTON TX 77099
(281) 530-5656
REF: WFEC-BO84130-RG

RMA:

FedEx Express

FedEx
TRK# 0221 5300 5228 9894

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO SGRA

77099
TX-US IAH

#5262182 04/01 5GDJ1/1E3B/FE4A

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

48469

CUSTODY SEAL
Date: 4/1/22 Time: 2000
Name: BV
Company:

Seal Broken By: SM
Date: 04102122

48469 APR 0 2 2022

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

48469

CUSTODY SEAL
Date: 4/1/22 Time: 2000
Name: BV
Company:

Seal Broken By: SM
Date: 04102122

48469

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

NORMAN, OK 73069
UNITED STATES US

SHIP DATE: 14MAR22
ACTWGT: 1.00 LB MAN
CAD: 0221247/CAFE3512
DIMS: 26x14x14 IN

TO SHIPPING DEPT
ALS LABORATORY GROUP
10450 STANCLIFF RD
SUITE 210
HOUSTON TX 77099
(281) 530-5656
REF: CCR LANDFILL - BO84127 - RG

RMA:

FedEx Express

FedEx
TRK# 0221 5300 5229 0236

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO SGRA

77099
TX-US IAH

#5262182 04/01 56DJ1/1E3B/FE4A

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

46688

CUSTODY SEAL
Date: 4/1/22 Time: 2000
Name: BV
Company:

Seal Broken By: SM
Date: 04102122

46688 APR 0 2 2022

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

46688

CUSTODY SEAL
Date: 4/1/22 Time: 2000
Name: BV
Company:

Seal Broken By: SM
Date: 04102122

46688

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

NORMAN, OK 73069
UNITED STATES US

SHIP DATE: 14MAR22
ACTWGT: 1.00 LB MAN
CAD: 0221247/CAFE3512
DIMS: 26x14x14 IN

TO SHIPPING DEPT
ALS LABORATORY GROUP
10450 STANCLIFF RD
SUITE 210
HOUSTON TX 77099
(281) 530-5656
REF: CCR LANDFILL - B084127 - RG
RMA:

FedEx Express

FedEx
TRK# 0221 5300 5229 0188

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO SGRA

77099
TX-US IAH

Friday, May 20, 2022

Ragen Giga
ALS Environmental
10450 Stancliff Rd, Suite 210
Houston, TX 77099

Re: ALS Workorder: 2204070
Project Name:
Project Number: HS22040016

Dear Mr. Giga:

Thirteen water samples were received from ALS Environmental, on 4/5/2022. The samples were scheduled for the following analysis:

Radium-226

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Janice Winn-Shilling
Project Manager

Accreditations: ALS Environmental – Fort Collins is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Environmental – Fort Collins	
Accreditation Body	License or Certification Number
Arizona	AZ0828
California (CA)	2926
Colorado (CO)	CO01099
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
Oklahoma	1301
Maryland (MD)	285
Missouri (MO)	175
Nebraska(NE)	NE-OS-24-13
Nevada (NV)	CO010992018-1
New York (NY)	12036
North Dakota (ND)	R-057
Oklahoma (OK)	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	TN02976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington (WA)	C1280
Virginia	460305

40 CFR Part 136: All analyses for Clean Water Act samples are analyzed using the 40 CFR Part 136 specified method and include all the QC requirements.

2204070

Radium-228:
The samples were analyzed for the presence of ^{228}Ra by low background gas flow proportional counting of ^{228}Ac, which is the ingrown progeny of ^{228}Ra, according to the current revision of EPA 904.0, with procedure modifications outlined on QASS #452599.

All acceptance criteria were met.

Radium-226:
The samples were prepared and analyzed according to the current revision of EPA 903.1.

All acceptance criteria were met.

ADDRESS 225 Commerce Drive, Fort Collins Colorado 80524 USA | PHONE +1 970 490 1511 | FAX +1 970 490 1522

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 2204070
Client Name: ALS Environmental
Client Project Name:
Client Project Number: HS22040016
Client PO Number: HS22040016

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
MW-14A	2204070-1		WATER	30-Mar-22	15:29
MW-15A	2204070-2		WATER	30-Mar-22	12:22
MW-21	2204070-3		WATER	30-Mar-22	17:33
MW-3	2204070-4		WATER	30-Mar-22	15:51
MW-5S	2204070-5		WATER	31-Mar-22	15:31
MW-7S	2204070-6		WATER	01-Apr-22	19:29
MW-13	2204070-7		WATER	01-Apr-22	11:54
MW-16	2204070-8		WATER	01-Apr-22	13:31
MW-17	2204070-9		WATER	31-Mar-22	17:22
MW-18	2204070-10		WATER	31-Mar-22	17:08
MW-19S	2204070-11		WATER	01-Apr-22	13:35
MW-20	2204070-12		WATER	31-Mar-22	19:20
DUP 3	2204070-13		WATER	31-Mar-22	17:08

2204070

10450 Stancliff Rd, Ste 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

SAMPLING STATE: **Oklahoma** **COC ID:** **18470**

SUBCONTRACT TO:

ALS Environmental, Fort Collins
225 Commerce Drive
Fort Collins, CO 80524

Phone: +1 970 490 1511

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Ragen Giga
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	RagenP.Giga@ALSGlobal.com
Alternate Contact:	Jumoke M. Lawal
Email:	jumoke.lawal@alsglobal.com

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS22040016
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS22040016-01**	**MW-14A**	**Water**	**30 Mar 2022 15:29**
	Report as combined 226 & 228			15 Apr 2022
	Report as combined 226 & 228			15 Apr 2022
2.	**HS22040016-02**	**MW-15A**	**Water**	**30 Mar 2022 12:22**
	Report as combined 226 & 228			15 Apr 2022
	Report as combined 226 & 228			15 Apr 2022
3.	**HS22040016-03**	**MW-21**	**Water**	**30 Mar 2022 17:33**
	Report as combined 226 & 228			15 Apr 2022
	Report as combined 226 & 228			15 Apr 2022
4.	**HS22040016-04**	**MW-3**	**Water**	**30 Mar 2022 15:51**
	Report as combined 226 & 228			15 Apr 2022
	Report as combined 226 & 228			15 Apr 2022
5.	**HS22040016-05**	**MW-5S**	**Water**	**31 Mar 2022 15:31**
	Report as combined 226 & 228			15 Apr 2022
	Report as combined 226 & 228			15 Apr 2022
6.	**HS22040016-06**	**MW-7S**	**Water**	**01 Apr 2022 19:29**
	Report as combined 226 & 228			15 Apr 2022
	Report as combined 226 & 228			15 Apr 2022

2204070

Subcontract Chain of Custody

SAMPLING STATE: **Oklahoma** **COC ID:** **18470**

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
7.	**HS22040016-07**	**MW-13**	**Water**	**01 Apr 2022 11:54**
	Report as combined 226 & 228			15 Apr 2022
	Report as combined 226 & 228			15 Apr 2022
8.	**HS22040016-08**	**MW-16**	**Water**	**01 Apr 2022 13:31**
	Report as combined 226 & 228			15 Apr 2022
	Report as combined 226 & 228			15 Apr 2022
9.	**HS22040016-09**	**MW-17**	**Water**	**31 Mar 2022 17:22**
	Report as combined 226 & 228			15 Apr 2022
	Report as combined 226 & 228			15 Apr 2022
10.	**HS22040016-10**	**MW-18**	**Water**	**31 Mar 2022 17:08**
	Report as combined 226 & 228			15 Apr 2022
	Report as combined 226 & 228			15 Apr 2022
11.	**HS22040016-11**	**MW-19S**	**Water**	**01 Apr 2022 13:35**
	Report as combined 226 & 228			15 Apr 2022
	Report as combined 226 & 228			15 Apr 2022
12.	**HS22040016-12**	**MW-20**	**Water**	**31 Mar 2022 19:20**
	Report as combined 226 & 228			15 Apr 2022
	Report as combined 226 & 228			15 Apr 2022
13.	**HS22040016-13**	**DUP 3**	**Water**	**31 Mar 2022 17:08**
	Report as combined 226 & 228			15 Apr 2022
	Report as combined 226 & 228			15 Apr 2022

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above. HS22040016-11 MS/MSD.

QC Level: STD (Laboratory Standard QC: method blank and LCS required)

Relinquished By: NA Date/Time: 4.4.22 18.0

Received By: Date/Time: 4/5/22 1507

Cooler ID(s): Temperature(s):

02 Apr 2022

ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: ALS TX Workorder No: 2204070

Project Manager: JWS Initials: CXT Date: 04/052022

	N/A	YES	NO
1. Are airbills / shipping documents present and/or removable?		X	
Tracking number: 5300 5229 9678/ 5300 5229 9689/ 5300 5229 9690/ 5300 5229 9704			
2. Are custody seals on **shipping** containers intact?		X	
3. Are custody seals on **sample** containers intact?	X		
4. Is there a COC (chain-of-custody) present?		X	
5. Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)		X	
6. Are short-hold samples present?			X
7. Are all samples within holding times for the requested analyses?		X	
8. Were all sample containers received intact? (not broken or leaking)		X	
9. Is there sufficient sample for the requested analyses?		X	
10. Are samples in proper containers for requested analyses? (form 250, *Sample Handling Guidelines*)		X	
11. Are all aqueous samples preserved correctly, if required? (excluding volatiles)		X	
12. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)	X		
13. Were the samples shipped on ice?			X
14. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #5	RAD ONLY		X

Cooler #:	1	2	3	4			
Temperature (°C):	AMB	AMB	AMB	AMB			
# of custody seals on cooler:	1	1	1	1			
External µR/hr reading:	10	9	10	9			
Background µR/hr reading:	11						

Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? **YES**

*** Please provide details here for NO responses to boxes above - for 2 thru 5 & 7 thru 12, notify PM & continue w/ login.**

Were unpreserved bottles pH checked? NA All client bottle ID's vs ALS lab ID's double-checked by: CT

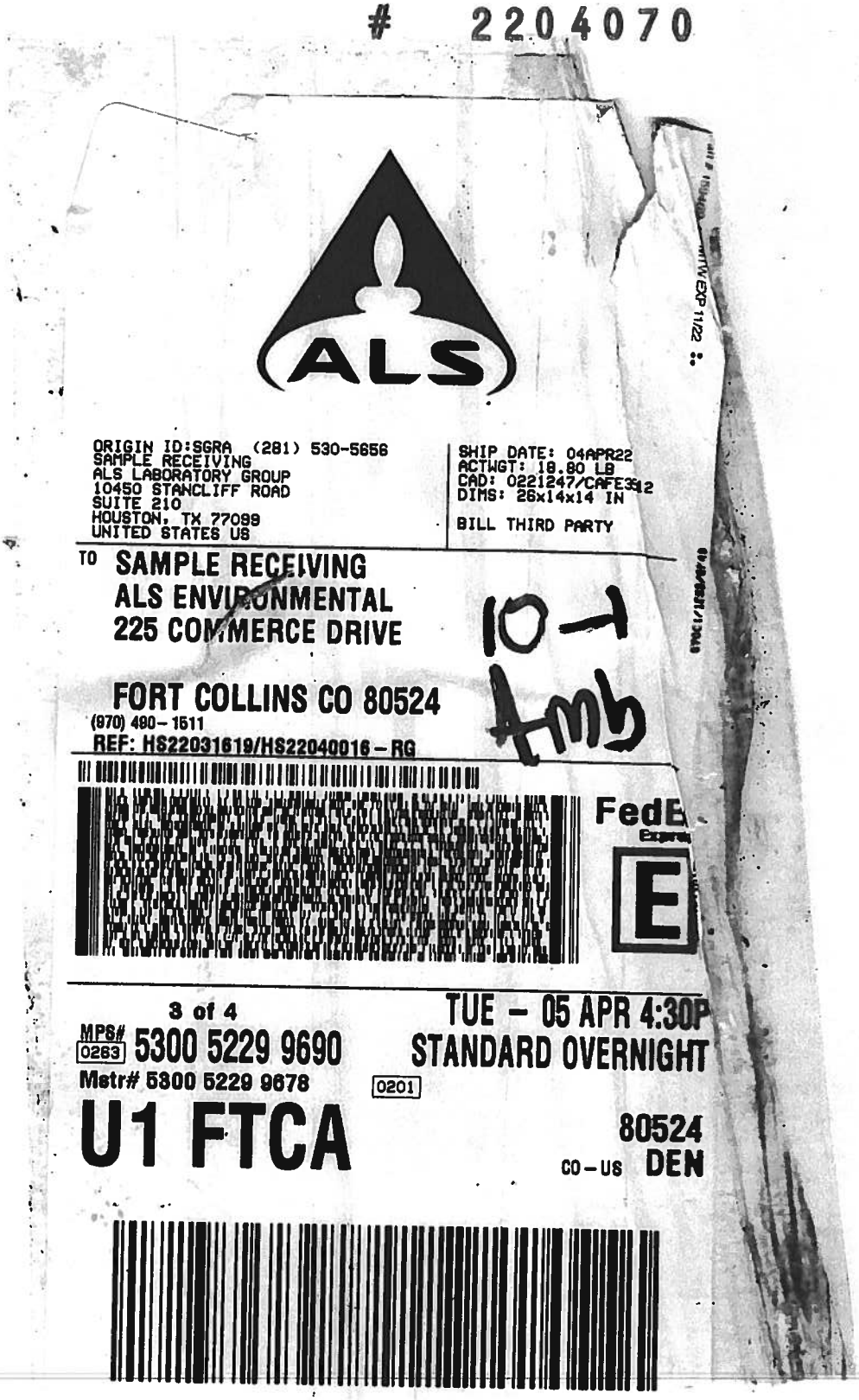
If applicable, was the client contacted? **YES / NO / NA** Contact: _____ Date/Time: _____

Project Manager Signature / Date: _____ 4/06/22

Form 201r29.xls
(10/15/2019)

*IR Gun #3, VWR SN 170647571
*IR Gun #5, VWR SN 192272629

2204070



ORIGIN ID:SGRA (281) 530-5656
SAMPLE RECEIVING
ALS LABORATORY GROUP
10450 STANCLIFF ROAD
SUITE 210
HOUSTON, TX 77099
UNITED STATES US

SHIP DATE: 04APR22
ACTWGT: 18.80 LB
CAD: 0221247/CAFE3512
DIMS: 26x14x14 IN

BILL THIRD PARTY

TO SAMPLE RECEIVING
ALS ENVIRONMENTAL
225 COMMERCE DRIVE

FORT COLLINS CO 80524
(970) 490-1511
REF: HS22031619/HS22040016-RG

10-1
Amb

FedE
Expre
E

3 of 4
MPS# 5300 5229 9690
0263
Mstr# 5300 5229 9678

TUE - 05 APR 4:30P
STANDARD OVERNIGHT
0201

U1 FTCA

80524
CO-US DEN

2204070

9-1 Amb

ORIGIN ID:SGRA (281) 530-5656
SAMPLE RECEIVING
ALS LABORATORY GROUP
10450 STANCLIFF ROAD
SUITE 210
HOUSTON, TX 77099
UNITED STATES US

SHIP DATE: 04APR22
ACTWGT: 18.80 LB
CAD: 0221247/CAFE3512
DIMS: 26x14x14 IN
BILL THIRD PARTY

TO SAMPLE RECEIVING
ALS ENVIRONMENTAL
225 COMMERCE DRIVE

FORT COLLINS CO 80524
(970) 490-1611
REF: HS22031619/HS22040016-RG

FedEx Express
E

J211020121101uv

570C1/1E3B/6F4D

1# 159469-434 MTW EXP

4 of 4
MPS# 5300 5229 9704
0263
Mstr# 5300 5229 9678
0201

TUE - 05 APR 4:30P
STANDARD OVERNIGHT

U1 FTCA

80524
CO-US DEN

9-1 Amb

ORIGIN ID:SGRA (281) 530-5656
SAMPLE RECEIVING
ALS LABORATORY GROUP
10450 STANCLIFF ROAD
SUITE 21
HOUSTON, TX 77099
UNITED STATES US

SHIP DATE: 04APR22
ACTWGT: 18.80 LB
CAD: 0221247/CAFE3512
DIMS: 26x14x14 IN
BILL THIRD PARTY

TO SAMPLE RECEIVING
ALS ENVIRONMENTAL
225 COMMERCE DRIVE

FORT COLLINS CO 80524
(970) 490-1611
REF: HS22031619/HS22040019-RG

FedEx Express
E

J211020121101uv

570C1/1E3B/6F4D

159469-434 MTW EXP 11/22

2 of 4
MPS# 5300 5229 9689
0263
Mstr# 5300 5229 9678
0201

TUE - 05 APR 4:30P
STANDARD OVERNIGHT

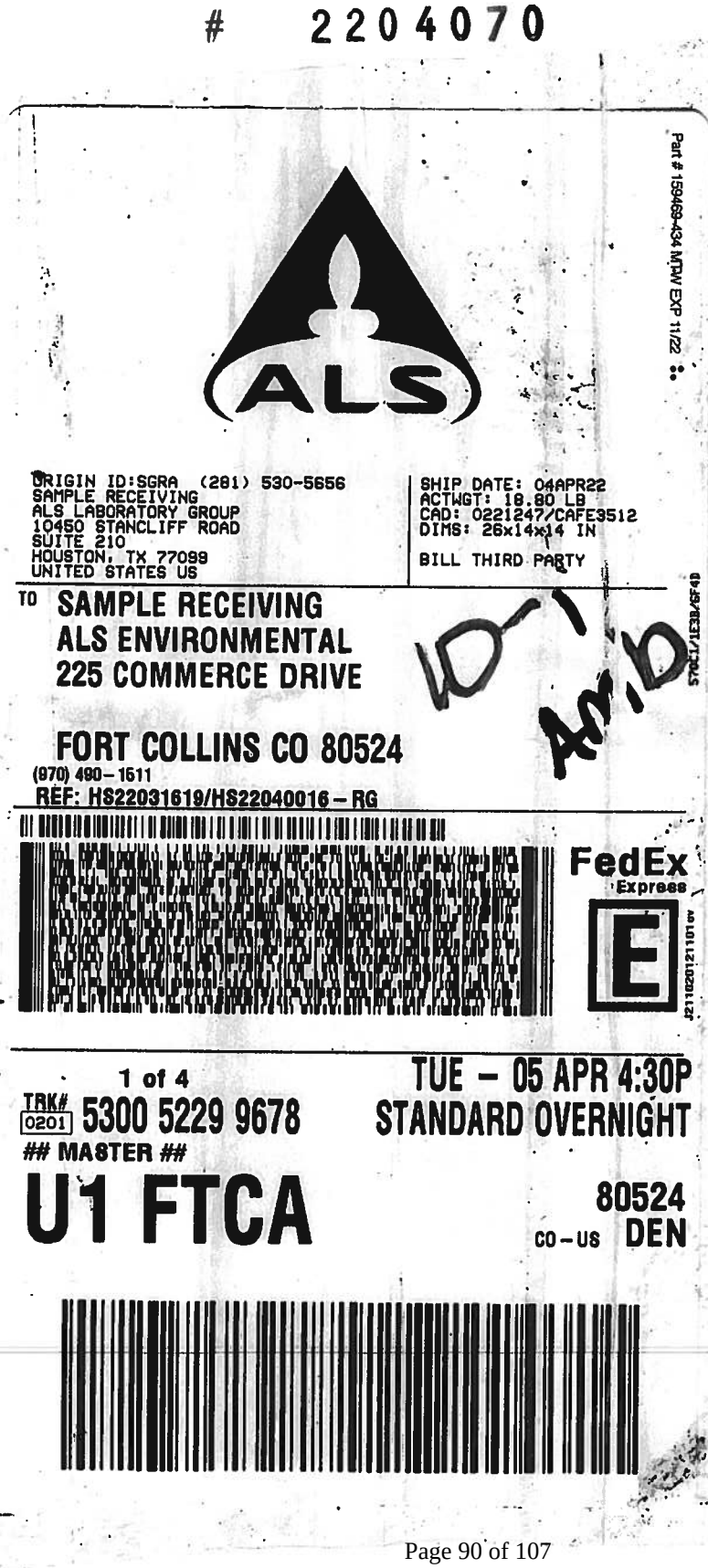
U1 FTCA

80524
CO-US DEN

BT

[redacted] ~~04/01/2022~~ 4/5/22

2204070



Part # 159469-434 NMW EXP 11/22

ORIGIN ID:SGRA (281) 530-5656
SAMPLE RECEIVING
ALS LABORATORY GROUP
10450 STANCLIFF ROAD
SUITE 210
HOUSTON, TX 77099
UNITED STATES US

SHIP DATE: 04APR22
ACTWGT: 18.80 LB
CAD: 0221247/CAFE3512
DIMS: 26x14x14 IN

BILL THIRD PARTY

TO SAMPLE RECEIVING
ALS ENVIRONMENTAL
225 COMMERCE DRIVE

FORT COLLINS CO 80524
(970) 490-1511
REF: HS22031619/HS22040016-RG

ID-1
AM D

FedEx Express

1 of 4
TRK# 0201 5300 5229 9678
MASTER
U1 FTCA

TUE - 05 APR 4:30P
STANDARD OVERNIGHT

80524
CO-US DEN

Client:	ALS Environmental	**Date:**	*20-May-22*
Project:	HS22040016	**Work Order:**	2204070
Sample ID:	MW-14A	**Lab ID:**	2204070-1
Legal Location:		**Matrix:**	WATER
Collection Date:	3/30/2022 15:29	**Percent Moisture:**	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Radium-226 by Radon Emanation - Method 903.1			**SOP 783**		Prep Date: **4/13/2022**	PrepBy: **EJE**
Ra-226	0.19 (+/- 0.18)	U	0.26	pCi/l	NA	4/26/2022 11:03
Carr: BARIUM	*99.2*		*40-110*	*%REC*	DL = NA	4/26/2022 11:03
Radium-228 Analysis by GFPC			**SOP 724**		Prep Date: **4/21/2022**	PrepBy: **MMS**
COMBINED RADIUM (226+228)	**1.33 (+/- 0)**		**0.83**	**pCi/l**	NA	4/26/2022 08:33
Ra-228	**1.33 (+/- 0.53)**		**0.83**	**pCi/l**	NA	4/25/2022 08:33
Carr: BARIUM	*93.5*		*40-110*	*%REC*	DL = NA	4/25/2022 08:33

Client:	ALS Environmental	**Date:**	*20-May-22*
Project:	HS22040016	**Work Order:**	2204070
Sample ID:	MW-15A	**Lab ID:**	2204070-2
Legal Location:		**Matrix:**	WATER
Collection Date:	3/30/2022 12:22	**Percent Moisture:**	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Radium-226 by Radon Emanation - Method 903.1		**SOP 783**		Prep Date: **4/13/2022**		PrepBy: **EJE**
Ra-226	0.08 (+/- 0.16)	U	0.29	pCi/l	NA	4/26/2022 11:03
Carr: BARIUM	*97.6*		*40-110*	*%REC*	DL = NA	4/26/2022 11:03
Radium-228 Analysis by GFPC		**SOP 724**		Prep Date: **4/21/2022**		PrepBy: **MMS**
COMBINED RADIUM (226+228)	**1.61 (+/- 0)**		**0.75**	**pCi/l**	NA	4/26/2022 08:33
Ra-228	**1.61 (+/- 0.56)**		**0.75**	**pCi/l**	NA	4/25/2022 08:33
Carr: BARIUM	*95.4*		*40-110*	*%REC*	DL = NA	4/25/2022 08:33

Client:	ALS Environmental	**Date:**	*20-May-22*
Project:	HS22040016	**Work Order:**	2204070
Sample ID:	MW-21	**Lab ID:**	2204070-3
Legal Location:		**Matrix:**	WATER
Collection Date:	3/30/2022 17:33	**Percent Moisture:**	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Radium-226 by Radon Emanation - Method 903.1			**SOP 783**		Prep Date: **4/13/2022**	PrepBy: **EJE**
Ra-226	0.23 (+/- 0.21)	U	0.3	pCi/l	NA	4/26/2022 11:03
Carr: BARIUM	*99.6*		*40-110*	*%REC*	DL = NA	4/26/2022 11:03
Radium-228 Analysis by GFPC			**SOP 724**		Prep Date: **4/21/2022**	PrepBy: **MMS**
COMBINED RADIUM (226+228)	**2.58 (+/- 0)**		**0.85**	**pCi/l**	NA	4/26/2022 08:33
Ra-228	**2.58 (+/- 0.77)**		**0.85**	**pCi/l**	NA	4/25/2022 08:33
Carr: BARIUM	*95.9*		*40-110*	*%REC*	DL = NA	4/25/2022 08:33

Client:	ALS Environmental	**Date:**	*20-May-22*
Project:	HS22040016	**Work Order:**	2204070
Sample ID:	MW-3	**Lab ID:**	2204070-4
Legal Location:		**Matrix:**	WATER
Collection Date:	3/30/2022 15:51	**Percent Moisture:**	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Radium-226 by Radon Emanation - Method 903.1			**SOP 783**		Prep Date: **4/13/2022**	PrepBy: **EJE**
Ra-226	**0.61 (+/- 0.33)**		**0.28**	**pCi/l**	NA	4/26/2022 11:03
Carr: BARIUM	*98.9*		*40-110*	*%REC*	DL = NA	4/26/2022 11:03
Radium-228 Analysis by GFPC			**SOP 724**		Prep Date: **4/21/2022**	PrepBy: **MMS**
COMBINED RADIUM (226+228)	0 (+/- 0)	U	0.81	pCi/l	NA	4/26/2022 08:45
Ra-228	0.8 (+/- 0.44)	U	0.81	pCi/l	NA	4/25/2022 08:45
Carr: BARIUM	*90.7*		*40-110*	*%REC*	DL = NA	4/25/2022 08:45

Client:	ALS Environmental	**Date:**	*20-May-22*
Project:	HS22040016	**Work Order:**	2204070
Sample ID:	MW-5S	**Lab ID:**	2204070-5
Legal Location:		**Matrix:**	WATER
Collection Date:	3/31/2022 15:31	**Percent Moisture:**	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Radium-226 by Radon Emanation - Method 903.1			**SOP 783**		Prep Date: **4/13/2022**	PrepBy: **EJE**
Ra-226	**0.23 (+/- 0.18)**		**0.22**	**pCi/l**	NA	4/26/2022 11:03
Carr: BARIUM	*96.5*		*40-110*	*%REC*	DL = NA	4/26/2022 11:03
Radium-228 Analysis by GFPC			**SOP 724**		Prep Date: **4/21/2022**	PrepBy: **MMS**
COMBINED RADIUM (226+228)	0 (+/- 0)	U	0.79	pCi/l	NA	4/26/2022 08:45
Ra-228	0.61 (+/- 0.41)	U	0.79	pCi/l	NA	4/25/2022 08:45
Carr: BARIUM	*93.5*		*40-110*	*%REC*	DL = NA	4/25/2022 08:45

Client:	ALS Environmental	**Date:**	*20-May-22*
Project:	HS22040016	**Work Order:**	2204070
Sample ID:	MW-7S	**Lab ID:**	2204070-6
Legal Location:		**Matrix:**	WATER
Collection Date:	4/1/2022 19:29	**Percent Moisture:**	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Radium-226 by Radon Emanation - Method 903.1		**SOP 783**		Prep Date: **4/13/2022**		PrepBy: **EJE**
Ra-226	0.19 (+/- 0.19)	U	0.26	pCi/l	NA	4/26/2022 11:03
Carr: BARIUM	*98.1*		*40-110*	*%REC*	DL = NA	4/26/2022 11:03
Radium-228 Analysis by GFPC		**SOP 724**		Prep Date: **4/21/2022**		PrepBy: **MMS**
COMBINED RADIUM (226+228)	**1.11 (+/- 0)**		**0.78**	**pCi/l**	NA	4/26/2022 08:45
Ra-228	**1.11 (+/- 0.48)**		**0.78**	**pCi/l**	NA	4/25/2022 08:45
Carr: BARIUM	*93.9*		*40-110*	*%REC*	DL = NA	4/25/2022 08:45

Client:	ALS Environmental	**Date:**	*20-May-22*
Project:	HS22040016	**Work Order:**	2204070
Sample ID:	MW-13	**Lab ID:**	2204070-7
Legal Location:		**Matrix:**	WATER
Collection Date:	4/1/2022 11:54	**Percent Moisture:**	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Radium-226 by Radon Emanation - Method 903.1			**SOP 783**		Prep Date: **4/13/2022**	PrepBy: **EJE**
Ra-226	0.3 (+/- 0.25)	U	0.31	pCi/l	NA	4/26/2022 11:03
Carr: BARIUM	*94.9*		*40-110*	*%REC*	DL = NA	4/26/2022 11:03
Radium-228 Analysis by GFPC			**SOP 724**		Prep Date: **4/21/2022**	PrepBy: **MMS**
COMBINED RADIUM (226+228)	**1.46 (+/- 0)**		**0.81**	**pCi/l**	NA	4/26/2022 11:22
Ra-228	**1.46 (+/- 0.55)**		**0.81**	**pCi/l**	NA	4/25/2022 11:22
Carr: BARIUM	*92*		*40-110*	*%REC*	DL = NA	4/25/2022 11:22

Client:	ALS Environmental	**Date:**	*20-May-22*
Project:	HS22040016	**Work Order:**	2204070
Sample ID:	MW-16	**Lab ID:**	2204070-8
Legal Location:		**Matrix:**	WATER
Collection Date:	4/1/2022 13:31	**Percent Moisture:**	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Radium-226 by Radon Emanation - Method 903.1		**SOP 783**		Prep Date: **4/13/2022**		PrepBy: **EJE**
Ra-226	0.05 (+/- 0.19)	U	0.36	pCi/l	NA	4/26/2022 11:26
Carr: BARIUM	*97.7*		*40-110*	*%REC*	DL = NA	4/26/2022 11:26
Radium-228 Analysis by GFPC		**SOP 724**		Prep Date: **4/21/2022**		PrepBy: **MMS**
COMBINED RADIUM (226+228)	0 (+/- 0)	U	0.78	pCi/l	NA	4/26/2022 11:22
Ra-228	0.5 (+/- 0.39)	U	0.78	pCi/l	NA	4/25/2022 11:22
Carr: BARIUM	*95.9*		*40-110*	*%REC*	DL = NA	4/25/2022 11:22

Client:	ALS Environmental	**Date:**	*20-May-22*
Project:	HS22040016	**Work Order:**	2204070
Sample ID:	MW-17	**Lab ID:**	2204070-9
Legal Location:		**Matrix:**	WATER
Collection Date:	3/31/2022 17:22	**Percent Moisture:**	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Radium-226 by Radon Emanation - Method 903.1			**SOP 783**		Prep Date: **4/13/2022**	PrepBy: **EJE**
Ra-226	0.09 (+/- 0.15)	U	0.26	pCi/l	NA	4/26/2022 11:26
Carr: BARIUM	*95.8*		*40-110*	*%REC*	DL = NA	4/26/2022 11:26
Radium-228 Analysis by GFPC			**SOP 724**		Prep Date: **4/21/2022**	PrepBy: **MMS**
COMBINED RADIUM (226+228)	0 (+/- 0)	U	0.79	pCi/l	NA	4/26/2022 11:22
Ra-228	0.11 (+/- 0.36)	U	0.79	pCi/l	NA	4/25/2022 11:22
Carr: BARIUM	*93.5*		*40-110*	*%REC*	DL = NA	4/25/2022 11:22

Client:	ALS Environmental	**Date:**	*20-May-22*
Project:	HS22040016	**Work Order:**	2204070
Sample ID:	MW-18	**Lab ID:**	2204070-10
Legal Location:		**Matrix:**	WATER
Collection Date:	3/31/2022 17:08	**Percent Moisture:**	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Radium-226 by Radon Emanation - Method 903.1		**SOP 783**		Prep Date: **4/13/2022**		PrepBy: **EJE**
Ra-226	0.02 (+/- 0.14)	U	0.28	pCi/l	NA	4/26/2022 11:26
Carr: BARIUM	*95.9*		*40-110*	*%REC*	DL = NA	4/26/2022 11:26
Radium-228 Analysis by GFPC		**SOP 724**		Prep Date: **4/21/2022**		PrepBy: **MMS**
COMBINED RADIUM (226+228)	0 (+/- 0)	U	0.79	pCi/l	NA	4/26/2022 11:22
Ra-228	-0.2 (+/- 0.34)	U	0.79	pCi/l	NA	4/25/2022 11:22
Carr: BARIUM	*93.3*		*40-110*	*%REC*	DL = NA	4/25/2022 11:22

Client:	ALS Environmental	**Date:**	*20-May-22*
Project:	HS22040016	**Work Order:**	2204070
Sample ID:	MW-19S	**Lab ID:**	2204070-11
Legal Location:		**Matrix:**	WATER
Collection Date:	4/1/2022 13:35	**Percent Moisture:**	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Radium-226 by Radon Emanation - Method 903.1			**SOP 783**		Prep Date: **4/13/2022**	PrepBy: **EJE**
Ra-226	0.17 (+/- 0.18)	U	0.26	pCi/l	NA	4/26/2022 11:26
Carr: BARIUM	*95.4*		*40-110*	*%REC*	DL = NA	4/26/2022 11:26
Radium-228 Analysis by GFPC			**SOP 724**		Prep Date: **4/21/2022**	PrepBy: **MMS**
COMBINED RADIUM (226+228)	0 (+/- 0)	U	0.82	pCi/l	NA	4/26/2022 11:22
Ra-228	0.04 (+/- 0.37)	U	0.82	pCi/l	NA	4/25/2022 11:22
Carr: BARIUM	*93.4*		*40-110*	*%REC*	DL = NA	4/25/2022 11:22

Client:	ALS Environmental	**Date:**	*20-May-22*
Project:	HS22040016	**Work Order:**	2204070
Sample ID:	MW-20	**Lab ID:**	2204070-12
Legal Location:		**Matrix:**	WATER
Collection Date:	3/31/2022 19:20	**Percent Moisture:**	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Radium-226 by Radon Emanation - Method 903.1			**SOP 783**		Prep Date: **4/13/2022**	PrepBy: **EJE**
Ra-226	0.16 (+/- 0.19)	U	0.29	pCi/l	NA	4/26/2022 11:26
Carr: BARIUM	*98.1*		*40-110*	*%REC*	DL = NA	4/26/2022 11:26
Radium-228 Analysis by GFPC			**SOP 724**		Prep Date: **4/21/2022**	PrepBy: **MMS**
COMBINED RADIUM (226+228)	0 (+/- 0)	U	0.87	pCi/l	NA	4/26/2022 11:22
Ra-228	0.65 (+/- 0.45)	U	0.87	pCi/l	NA	4/25/2022 11:22
Carr: BARIUM	*89.5*		*40-110*	*%REC*	DL = NA	4/25/2022 11:22

Client:	ALS Environmental	**Date:**	*20-May-22*
Project:	HS22040016	**Work Order:**	2204070
Sample ID:	DUP 3	**Lab ID:**	2204070-13
Legal Location:		**Matrix:**	WATER
Collection Date:	3/31/2022 17:08	**Percent Moisture:**	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Radium-226 by Radon Emanation - Method 903.1			**SOP 783**		Prep Date: **4/13/2022**	PrepBy: **EJE**
Ra-226	0.08 (+/- 0.19)	U	0.35	pCi/l	NA	4/26/2022 11:26
Carr: BARIUM	*97.9*		*40-110*	*%REC*	DL = NA	4/26/2022 11:26
Radium-228 Analysis by GFPC			**SOP 724**		Prep Date: **4/21/2022**	PrepBy: **MMS**
COMBINED RADIUM (226+228)	0 (+/- 0)	U	0.8	pCi/l	NA	4/26/2022 11:22
Ra-228	0 (+/- 0.36)	U	0.8	pCi/l	NA	4/25/2022 11:22
Carr: BARIUM	*93.6*		*40-110*	*%REC*	DL = NA	4/25/2022 11:22

Client:	ALS Environmental	**Date:**	*20-May-22*
Project:	HS22040016	**Work Order:**	2204070
Sample ID:	DUP 3	**Lab ID:**	2204070-13
Legal Location:		**Matrix:**	WATER
Collection Date:	3/31/2022 17:08	**Percent Moisture:**	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed

Explanation of Qualifiers

Radiochemistry:

- "Report Limit" is the MDC

U or ND - Result is less than the sample specific MDC.

Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.

Y2 - Chemical Yield outside default limits.

W - DER is greater than Warning Limit of 1.42

* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
# - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.
G - Sample density differs by more than 15% of LCS density.
D - DER is greater than Control Limit

M - Requested MDC not met.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

L - LCS Recovery below lower control limit.

H - LCS Recovery above upper control limit.

P - LCS, Matrix Spike Recovery within control limits.

N - Matrix Spike Recovery outside control limits

NC - Not Calculated for duplicate results less than 5 times MDC

B - Analyte concentration greater than MDC.

B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).

U or ND - Indicates that the compound was analyzed for but not detected.

E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.

M - Duplicate injection precision was not met.

N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.

Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.

* - Duplicate analysis (relative percent difference) not within control limits.

S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.

B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.

E - Analyte concentration exceeds the upper level of the calibration range.

J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).

A - A tentatively identified compound is a suspected aldol-condensation product.

X - The analyte was diluted below an accurate quantitation level.

* - The spike recovery is equal to or outside the control criteria used.

+ - The relative percent difference (RPD) equals or exceeds the control criteria.

G - A pattern resembling gasoline was detected in this sample.

D - A pattern resembling diesel was detected in this sample.

M - A pattern resembling motor oil was detected in this sample.

C - A pattern resembling crude oil was detected in this sample.

4 - A pattern resembling JP-4 was detected in this sample.

5 - A pattern resembling JP-5 was detected in this sample.

H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.

L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.

Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
- gasoline
- JP-8
- diesel
- mineral spirits
- motor oil
- Stoddard solvent
- bunker C

QC BATCH REPORT

Batch ID: **RE220413-1-2** Instrument ID **Alpha Scin** Method: **Radium-226 by Radon Emanation**

DUP Sample ID: **2204070-11** Units: **pCi/l** Analysis Date: **4/26/2022 11:26**

Client ID: **MW-19S** Run ID: **RE220413-1A** Prep Date: **4/13/2022** DF: **NA**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	DER Ref	DER	DER Limit	Qual
Ra-226	0.08 (+/- 0.21)	0.37						0.17	0.3	2.1	U
Carr: BARIUM	15120		15870		95.2	40-110		15140			

LCS Sample ID: **RE220413-1** Units: **pCi/l** Analysis Date: **4/26/2022 11:52**

Client ID: Run ID: **RE220413-1A** Prep Date: **4/13/2022** DF: **NA**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	DER Ref	DER	DER Limit	Qual
Ra-226	46 (+/- 11)	0	46.77		97.3	67-120					P
Carr: BARIUM	15710		15860		99.1	40-110					

MB Sample ID: **RE220413-1** Units: **pCi/l** Analysis Date: **4/26/2022 11:52**

Client ID: Run ID: **RE220413-1A** Prep Date: **4/13/2022** DF: **NA**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	DER Ref	DER	DER Limit	Qual
Ra-226	0.055 (+/- 0.091)	0.155									U
Carr: BARIUM	15770		15860		99.4	40-110					

The following samples were analyzed in this batch:

2204070-1	2204070-2	2204070-3
2204070-4	2204070-5	2204070-6
2204070-7	2204070-8	2204070-9
2204070-10	2204070-11	2204070-12
2204070-13		

Client: ALS Environmental
Work Order: 2204070
Project: HS22040016

QC BATCH REPORT

Batch ID: **RA220421-3-1** Instrument ID **GASPROP** Method: **Radium-228 Analysis by GFPC**

LCSD Sample ID: **RA220421-3** Units: **ug** Analysis Date: **4/25/2022 08:45**

Client ID: Run ID: **RA220421-3A** Prep Date: **4/21/2022** DF: **NA**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	DER Ref	DER	DER Limit	Qual
Carr: BARIUM	31690		34630		91.5	40-110					
Ra-228	15.9 (+/- 3.8)	0.8	21.82		73	70-130			1.4	2.1	P

The following samples were analyzed in this batch:

2204070-1	2204070-2	2204070-3
2204070-4	2204070-5	2204070-6

QC BATCH REPORT

Batch ID: **RA220421-4-1** Instrument ID **GASPROP** Method: **Radium-228 Analysis by GFPC**

DUP Sample ID: **2204070-11** Units: **ug** Analysis Date: **4/25/2022 11:22**
Client ID: **MW-19S** Run ID: **RA220421-4A** Prep Date: **4/21/2022** DF: **NA**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	DER Ref	DER	DER Limit	Qual
Carr: BARIUM	33270		35310		94.2	40-110		32980			
COMBINED RADIUM (226+228)	0 (+/- 0)	0.83						0			U
Ra-228	-0.42 (+/- 0.36)	0.83						0.04	0.9	2.1	U

LCS Sample ID: **RA220421-4** Units: **ug** Analysis Date: **4/28/2022 11:39**
Client ID: Run ID: **RA220421-4A** Prep Date: **4/21/2022** DF: **NA**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	DER Ref	DER	DER Limit	Qual
Carr: BARIUM	33620		35310		95.2	40-110					
Ra-228	21.7 (+/- 5.1)	0.8	21.79		99.5	70-130					P

MB Sample ID: **RA220421-4** Units: **ug** Analysis Date: **4/25/2022 11:22**
Client ID: Run ID: **RA220421-4A** Prep Date: **4/21/2022** DF: **NA**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	DER Ref	DER	DER Limit	Qual
Carr: BARIUM	33690		35310		95.4	40-110					
Ra-228	-0.28 (+/- 0.38)	0.86									U

The following samples were analyzed in this batch:

2204070-7	2204070-8	2204070-9
2204070-10	2204070-11	2204070-12
2204070-13		

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

June 16, 2022

Bert Smith
Altamira
525 central park Dr
Suite 500
Oklahoma City, OK 73013

Work Order: **HS22060384**

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

Dear Bert Smith,

ALS Environmental received 7 sample(s) on Jun 08, 2022 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL
Anna Kinchen
Project Manager

Client: Altamira
Project: WFEC CCR/Landfill
Work Order: HS22060384

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS22060384-01	MW-3	Water		06-Jun-2022 17:06	08-Jun-2022 10:00	☐
HS22060384-02	MW-5S	Water		07-Jun-2022 11:20	09-Jun-2022 14:52	☐
HS22060384-03	MW-16	Water		07-Jun-2022 12:22	09-Jun-2022 14:52	☐
HS22060384-04	MW-17	Water		07-Jun-2022 13:27	09-Jun-2022 14:52	☐
HS22060384-05	MW-20	Water		06-Jun-2022 18:00	08-Jun-2022 10:00	☐
HS22060384-06	MW-21	Water		06-Jun-2022 16:17	08-Jun-2022 10:00	☐
HS22060384-07	DUP 2	Water		07-Jun-2022 11:20	08-Jun-2022 10:00	☐

Client: Altamira **CASE NARRATIVE**
Project: WFEC CCR/Landfill
Work Order: HS22060384

Work Order Comments

• 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.

Metals by Method SM3500FED

Batch ID: R410723,R410725,R410248,R410339

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

Metals by Method SW6020A

Batch ID: 179808,179857

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

WetChemistry by Method SM4500 S2-F

Batch ID: R410618

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

WetChemistry by Method E410.4

Batch ID: R410708

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

WetChemistry by Method SM4500H+ B

Batch ID: R410712,R410716

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

WetChemistry by Method M2540C

Batch ID: R410620

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

WetChemistry by Method SM3500FED

Batch ID: R410423

Sample ID: MW-16 (HS22060384-03)

• Sample holding time expired prior to sample receipt. It was analyzed at the request of the client. Results should be considered estimated.

Sample ID: MW-17 (HS22060384-04)

• Sample holding time expired prior to sample receipt. It was analyzed at the request of the client. Results should be considered estimated.

Sample ID: MW-5S (HS22060384-02)

• Sample holding time expired prior to sample receipt. It was analyzed at the request of the client. Results should be considered estimated.

Client: Altamira **CASE NARRATIVE**
Project: WFEC CCR/Landfill
Work Order: HS22060384

WetChemistry by Method SM3500FED

Batch ID: R410421

Sample ID: MW-16 (HS22060384-03)

- Sample holding time expired prior to sample receipt. It was analyzed at the request of the client. Results should be considered estimated.

Sample ID: MW-17 (HS22060384-04)

- Sample holding time expired prior to sample receipt. It was analyzed at the request of the client. Results should be considered estimated.

Sample ID: MW-5S (HS22060384-02)

- Sample holding time expired prior to sample receipt. It was analyzed at the request of the client. Results should be considered estimated.

WetChemistry by Method SM2320B

Batch ID: R410419

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

WetChemistry by Method M2510 B

Batch ID: R410397

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

WetChemistry by Method E300

Batch ID: R410439

Sample ID: HS22060495-01MS

- MS and MSD are for an unrelated sample (Sulfate)

Sample ID: HS22060501-07MS

- MS and MSD are for an unrelated sample (Sulfate)

Batch ID: R410286

Sample ID: HS22060426-04MS

- MS and MSD are for an unrelated sample (Chloride)

Sample ID: MW-16 (HS22060384-03)

- Sample was received out of holding time.
  Run at client request out of holding time.

Sample ID: MW-17 (HS22060384-04)

- Sample was received out of holding time.
  Run at client request out of holding time.

Sample ID: MW-5S (HS22060384-02)

- Sample was received out of holding time.
  Run at client request out of holding time.

Client: Altamira **CASE NARRATIVE**
Project: WFEC CCR/Landfill
Work Order: HS22060384

WetChemistry by Method E300

Batch ID: R410254

Sample ID: DUP 2 (HS22060384-07MS)

- 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)

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: MW-3
Collection Date: 06-Jun-2022 17:06

ANALYTICAL REPORT
WorkOrder:HS22060384
Lab ID:HS22060384-01
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**12.1**		**0.200**	**0.500**	**mg/L**	1	08-Jun-2022 13:44
Fluoride	**0.360**		**0.0500**	**0.100**	**mg/L**	1	08-Jun-2022 13:44
Nitrogen, Nitrate (As N)	**0.137**		**0.0300**	**0.100**	**mg/L**	1	08-Jun-2022 13:44
Sulfate	**1,090**		**4.00**	**10.0**	**mg/L**	20	08-Jun-2022 13:49
CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993		**Method:E410.4**					Analyst: TH
Chemical Oxygen Demand	**15.0**		**5.00**	**15.0**	**mg/L**	1	15-Jun-2022 15:30
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: MZD
Specific Conductivity	**3,030**		**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	10-Jun-2022 12:33
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: CWG
Total Dissolved Solids (Residue, Filterable)	**1,860**		**5.00**	**10.0**	**mg/L**	1	13-Jun-2022 16:37
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: SB
pH	**7.51**	H	**0.100**	**0.100**	**pH Units**	1	15-Jun-2022 16:36
Temp Deg C @pH	**20.6**	H	**0**	**0**	**°C**	1	15-Jun-2022 16:36

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

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: MW-5S
Collection Date: 07-Jun-2022 11:20

ANALYTICAL REPORT
WorkOrder:HS22060384
Lab ID:HS22060384-02
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	**0.0311**	J	**0.0200**	**0.0500**	**mg/L**	1	15-Jun-2022 17:39
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		**Method:SM3500FED (dissolved)**					Analyst: JHD
Ferric Iron, Dissolved	U		0.0200	0.0500	mg/L	1	15-Jun-2022 17:40
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 10-Jun-2022		Analyst: JHD
Iron	**0.0311**	J	**0.0120**	**0.200**	**mg/L**	1	14-Jun-2022 16:49
DISSOLVED METALS BY SW6020A		**Method:SW6020A (dissolved)**			Prep:SW3010A / 13-Jun-2022		Analyst: JHD
Iron	**0.0138**	J	**0.0120**	**0.200**	**mg/L**	1	14-Jun-2022 21:27
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**24.1**		**0.200**	**0.500**	**mg/L**	1	09-Jun-2022 18:32
Fluoride	**1.41**		**0.0500**	**0.100**	**mg/L**	1	09-Jun-2022 18:32
Nitrogen, Nitrate (As N)	**0.0996**	JH	**0.0300**	**0.100**	**mg/L**	1	09-Jun-2022 18:32
Sulfate	**503**		**2.00**	**5.00**	**mg/L**	10	10-Jun-2022 20:27
CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993		**Method:E410.4**					Analyst: TH
Chemical Oxygen Demand	**17.0**		**5.00**	**15.0**	**mg/L**	1	15-Jun-2022 15:30
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: MZD
Specific Conductivity	**2,280**		**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	10-Jun-2022 12:33
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: CWG
Total Dissolved Solids (Residue, Filterable)	**1,170**		**5.00**	**10.0**	**mg/L**	1	13-Jun-2022 16:37
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: JAC
Alkalinity, Bicarbonate (As CaCO3)	**419**		**5.00**	**5.00**	**mg/L**	1	09-Jun-2022 17:40
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	09-Jun-2022 17:40
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	09-Jun-2022 17:40
Alkalinity, Total (As CaCO3)	**419**		**5.00**	**5.00**	**mg/L**	1	09-Jun-2022 17:40
FERROUS IRON BY SM3500 FE B		**Method:SM3500FED**					Analyst: AP
Ferrous Iron	U	H	0.0200	0.0500	mg/L	1	10-Jun-2022 13:02
FERROUS IRON BY SM3500 FE D		**Method:SM3500FED (dissolved)**					Analyst: AP
Ferrous Iron, Dissolved	U	H	0.0200	0.0500	mg/L	1	10-Jun-2022 13:11
SULFIDE BY SM4500 S2-F-2011		**Method:SM4500 S2-F**					Analyst: MZD
Sulfide	U		1.00	1.00	mg/L	1	14-Jun-2022 16:32
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: SB
pH	**8.19**	H	**0.100**	**0.100**	**pH Units**	1	15-Jun-2022 16:36
Temp Deg C @pH	**20.4**	H	**0**	**0**	**°C**	1	15-Jun-2022 16:36

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

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: MW-16
Collection Date: 07-Jun-2022 12:22

ANALYTICAL REPORT
WorkOrder:HS22060384
Lab ID:HS22060384-03
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	U		0.0200	0.0500	mg/L	1	15-Jun-2022 17:39
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		**Method:SM3500FED (dissolved)**					Analyst: JHD
Ferric Iron, Dissolved	U		0.0200	0.0500	mg/L	1	15-Jun-2022 17:40
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 10-Jun-2022		Analyst: JHD
Iron	**0.0145**	J	**0.0120**	**0.200**	**mg/L**	1	14-Jun-2022 17:33
DISSOLVED METALS BY SW6020A		**Method:SW6020A (dissolved)**			Prep:SW3010A / 13-Jun-2022		Analyst: JHD
Iron	U		0.0120	0.200	mg/L	1	14-Jun-2022 21:31
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**15.0**		**0.200**	**0.500**	**mg/L**	1	09-Jun-2022 18:37
Fluoride	**1.01**		**0.0500**	**0.100**	**mg/L**	1	09-Jun-2022 18:37
Nitrogen, Nitrate (As N)	**0.0630**	JH	**0.0300**	**0.100**	**mg/L**	1	09-Jun-2022 18:37
Sulfate	**1,090**		**4.00**	**10.0**	**mg/L**	20	09-Jun-2022 18:42
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	15-Jun-2022 15:30
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: MZD
Specific Conductivity	**2,910**		**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	10-Jun-2022 12:33
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: CWG
Total Dissolved Solids (Residue, Filterable)	**1,700**		**5.00**	**10.0**	**mg/L**	1	13-Jun-2022 16:37
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: JAC
Alkalinity, Bicarbonate (As CaCO3)	**258**		**5.00**	**5.00**	**mg/L**	1	09-Jun-2022 17:40
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	09-Jun-2022 17:40
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	09-Jun-2022 17:40
Alkalinity, Total (As CaCO3)	**258**		**5.00**	**5.00**	**mg/L**	1	09-Jun-2022 17:40
FERROUS IRON BY SM3500 FE B		**Method:SM3500FED**					Analyst: AP
Ferrous Iron	U	H	0.0200	0.0500	mg/L	1	10-Jun-2022 13:02
FERROUS IRON BY SM3500 FE D		**Method:SM3500FED (dissolved)**					Analyst: AP
Ferrous Iron, Dissolved	U	H	0.0200	0.0500	mg/L	1	10-Jun-2022 13:11
SULFIDE BY SM4500 S2-F-2011		**Method:SM4500 S2-F**					Analyst: MZD
Sulfide	U		1.00	1.00	mg/L	1	14-Jun-2022 16:32
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: SB
pH	**7.92**	H	**0.100**	**0.100**	**pH Units**	1	15-Jun-2022 16:47
Temp Deg C @pH	**20.1**	H	**0**	**0**	**°C**	1	15-Jun-2022 16:47

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

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: MW-17
Collection Date: 07-Jun-2022 13:27

ANALYTICAL REPORT
WorkOrder:HS22060384
Lab ID:HS22060384-04
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	15-Jun-2022 17:39
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		**Method:SM3500FED (dissolved)**					Analyst: JHD
Ferric Iron, Dissolved	U		0.0200	0.0500	mg/L	1	15-Jun-2022 17:40
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 10-Jun-2022		Analyst: JHD
Iron	U		0.0120	0.200	mg/L	1	14-Jun-2022 17:35
DISSOLVED METALS BY SW6020A		**Method:SW6020A (dissolved)**			Prep:SW3010A / 13-Jun-2022		Analyst: JHD
Iron	U		0.0120	0.200	mg/L	1	14-Jun-2022 21:33
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**4.16**		**0.200**	**0.500**	**mg/L**	1	09-Jun-2022 19:14
Fluoride	**0.371**		**0.0500**	**0.100**	**mg/L**	1	09-Jun-2022 19:14
Nitrogen, Nitrate (As N)	**0.0834**	JH	**0.0300**	**0.100**	**mg/L**	1	09-Jun-2022 19:14
Sulfate	**1,460**		**4.00**	**10.0**	**mg/L**	20	09-Jun-2022 19:19
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	15-Jun-2022 15:30
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: MZD
Specific Conductivity	**2,920**		**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	10-Jun-2022 12:33
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: CWG
Total Dissolved Solids (Residue, Filterable)	**2,220**		**5.00**	**10.0**	**mg/L**	1	13-Jun-2022 16:37
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: JAC
Alkalinity, Bicarbonate (As CaCO3)	**269**		**5.00**	**5.00**	**mg/L**	1	09-Jun-2022 17:40
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	09-Jun-2022 17:40
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	09-Jun-2022 17:40
Alkalinity, Total (As CaCO3)	**269**		**5.00**	**5.00**	**mg/L**	1	09-Jun-2022 17:40
FERROUS IRON BY SM3500 FE B		**Method:SM3500FED**					Analyst: AP
Ferrous Iron	**0.0220**	JH	**0.0200**	**0.0500**	**mg/L**	1	10-Jun-2022 13:02
FERROUS IRON BY SM3500 FE D		**Method:SM3500FED (dissolved)**					Analyst: AP
Ferrous Iron, Dissolved	U	H	0.0200	0.0500	mg/L	1	10-Jun-2022 13:11
SULFIDE BY SM4500 S2-F-2011		**Method:SM4500 S2-F**					Analyst: MZD
Sulfide	U		1.00	1.00	mg/L	1	14-Jun-2022 16:32
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: SB
pH	**7.67**	H	**0.100**	**0.100**	**pH Units**	1	15-Jun-2022 16:47
Temp Deg C @pH	**20.1**	H	**0**	**0**	**°C**	1	15-Jun-2022 16:47

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

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: MW-20
Collection Date: 06-Jun-2022 18:00

ANALYTICAL REPORT
WorkOrder:HS22060384
Lab ID:HS22060384-05
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**5.34**		**0.200**	**0.500**	**mg/L**	1	08-Jun-2022 13:54
Fluoride	**0.289**		**0.0500**	**0.100**	**mg/L**	1	08-Jun-2022 13:54
Nitrogen, Nitrate (As N)	**0.0769**	J	**0.0300**	**0.100**	**mg/L**	1	08-Jun-2022 13:54
Sulfate	**732**		**4.00**	**10.0**	**mg/L**	20	08-Jun-2022 14:00
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	15-Jun-2022 15:30
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: MZD
Specific Conductivity	**2,170**		**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	10-Jun-2022 12:33
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: CWG
Total Dissolved Solids (Residue, Filterable)	**1,440**		**5.00**	**10.0**	**mg/L**	1	13-Jun-2022 16:37
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: SB
pH	**7.60**	H	**0.100**	**0.100**	**pH Units**	1	15-Jun-2022 16:36
Temp Deg C @pH	**20.8**	H	**0**	**0**	**°C**	1	15-Jun-2022 16:36

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

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: MW-21
Collection Date: 06-Jun-2022 16:17

ANALYTICAL REPORT
WorkOrder:HS22060384
Lab ID:HS22060384-06
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**22.4**		**0.200**	**0.500**	**mg/L**	1	08-Jun-2022 14:05
Fluoride	**0.543**		**0.0500**	**0.100**	**mg/L**	1	08-Jun-2022 14:05
Nitrogen, Nitrate (As N)	**0.399**		**0.0300**	**0.100**	**mg/L**	1	08-Jun-2022 14:05
Sulfate	**1,610**		**4.00**	**10.0**	**mg/L**	20	08-Jun-2022 14:10
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	15-Jun-2022 15:30
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: MZD
Specific Conductivity	**9,390**		**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	10-Jun-2022 12:33
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: CWG
Total Dissolved Solids (Residue, Filterable)	**2,660**		**5.00**	**10.0**	**mg/L**	1	13-Jun-2022 16:37
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: SB
pH	**7.57**	H	**0.100**	**0.100**	**pH Units**	1	15-Jun-2022 16:36
Temp Deg C @pH	**20.3**	H	**0**	**0**	**°C**	1	15-Jun-2022 16:36

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

Client: Altamira
Project: WFEC CCR/Landfill
Sample ID: DUP 2
Collection Date: 07-Jun-2022 11:20

ANALYTICAL REPORT
WorkOrder:HS22060384
Lab ID:HS22060384-07
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	**0.0223**	J	**0.0200**	**0.0500**	**mg/L**	1	15-Jun-2022 17:39
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		**Method:SM3500FED (dissolved)**					Analyst: JHD
Ferric Iron, Dissolved	**0.0285**	J	**0.0200**	**0.0500**	**mg/L**	1	15-Jun-2022 17:40
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 10-Jun-2022		Analyst: JHD
Iron	**0.0223**	J	**0.0120**	**0.200**	**mg/L**	1	14-Jun-2022 17:37
DISSOLVED METALS BY SW6020A		**Method:SW6020A (dissolved)**			Prep:SW3010A / 13-Jun-2022		Analyst: JHD
Iron	**0.0285**	J	**0.0120**	**0.200**	**mg/L**	1	14-Jun-2022 21:35
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**24.1**		**0.200**	**0.500**	**mg/L**	1	08-Jun-2022 13:23
Fluoride	**1.41**		**0.0500**	**0.100**	**mg/L**	1	08-Jun-2022 13:23
Nitrogen, Nitrate (As N)	**0.0952**	J	**0.0300**	**0.100**	**mg/L**	1	08-Jun-2022 13:23
Sulfate	**485**		**2.00**	**5.00**	**mg/L**	10	08-Jun-2022 13:38
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	15-Jun-2022 15:30
SPECIFIC CONDUCTANCE BY SM 2510B-2011		**Method:M2510 B**					Analyst: MZD
Specific Conductivity	**2,260**		**5.00**	**5.00**	**umhos/cm @ 25.0 °C**	1	10-Jun-2022 12:33
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: CWG
Total Dissolved Solids (Residue, Filterable)	**1,180**		**5.00**	**10.0**	**mg/L**	1	13-Jun-2022 16:37
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**					Analyst: JAC
Alkalinity, Bicarbonate (As CaCO3)	**415**		**5.00**	**5.00**	**mg/L**	1	09-Jun-2022 17:40
Alkalinity, Carbonate (As CaCO3)	**5.19**		**5.00**	**5.00**	**mg/L**	1	09-Jun-2022 17:40
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	09-Jun-2022 17:40
Alkalinity, Total (As CaCO3)	**421**		**5.00**	**5.00**	**mg/L**	1	09-Jun-2022 17:40
FERROUS IRON BY SM3500 FE B		**Method:SM3500FED**					Analyst: AP
Ferrous Iron	U		0.0200	0.0500	mg/L	1	08-Jun-2022 13:12
FERROUS IRON BY SM3500 FE D		**Method:SM3500FED (dissolved)**					Analyst: AP
Ferrous Iron, Dissolved	U		0.0200	0.0500	mg/L	1	08-Jun-2022 13:20
SULFIDE BY SM4500 S2-F-2011		**Method:SM4500 S2-F**					Analyst: MZD
Sulfide	U		1.00	1.00	mg/L	1	14-Jun-2022 16:32
PH BY SM4500H+ B-2011		**Method:SM4500H+ B**					Analyst: SB
pH	**8.40**	H	**0.100**	**0.100**	**pH Units**	1	15-Jun-2022 16:47
Temp Deg C @pH	**21.6**	H	**0**	**0**	**°C**	1	15-Jun-2022 16:47

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

Weight / Prep Log

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22060384

Batch ID: 179808 **Start Date:** 10 Jun 2022 09:30 **End Date:** 10 Jun 2022 13:30
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22060384-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22060384-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22060384-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22060384-07		10 (mL)	10 (mL)	1	120 plastic HNO3

Batch ID: 179857 **Start Date:** 13 Jun 2022 10:00 **End Date:** 13 Jun 2022 14:00
Method: DISS METALS PREP - WATER - SW3010A **Prep Code:** 3010A DISS

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22060384-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22060384-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22060384-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22060384-07		10 (mL)	10 (mL)	1	120 plastic HNO3

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22060384

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 179808 (0)	**Test Name :** ICP-MS METALS BY SW6020A				**Matrix:** Water	
HS22060384-02	MW-5S	07 Jun 2022 11:20		10 Jun 2022 09:30	14 Jun 2022 16:49	1
HS22060384-03	MW-16	07 Jun 2022 12:22		10 Jun 2022 09:30	14 Jun 2022 17:33	1
HS22060384-04	MW-17	07 Jun 2022 13:27		10 Jun 2022 09:30	14 Jun 2022 17:35	1
HS22060384-07	DUP 2	07 Jun 2022 11:20		10 Jun 2022 09:30	14 Jun 2022 17:37	1
Batch ID: 179857 (0)	**Test Name :** DISSOLVED METALS BY SW6020A				**Matrix:** Water	
HS22060384-02	MW-5S	07 Jun 2022 11:20		13 Jun 2022 10:00	14 Jun 2022 21:27	1
HS22060384-03	MW-16	07 Jun 2022 12:22		13 Jun 2022 10:00	14 Jun 2022 21:31	1
HS22060384-04	MW-17	07 Jun 2022 13:27		13 Jun 2022 10:00	14 Jun 2022 21:33	1
HS22060384-07	DUP 2	07 Jun 2022 11:20		13 Jun 2022 10:00	14 Jun 2022 21:35	1
Batch ID: R410248 (0)	**Test Name :** FERROUS IRON BY SM3500 FE B				**Matrix:** Water	
HS22060384-07	DUP 2	07 Jun 2022 11:20			08 Jun 2022 13:12	1
Batch ID: R410254 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS22060384-01	MW-3	06 Jun 2022 17:06			08 Jun 2022 13:49	20
HS22060384-01	MW-3	06 Jun 2022 17:06			08 Jun 2022 13:44	1
HS22060384-05	MW-20	06 Jun 2022 18:00			08 Jun 2022 14:00	20
HS22060384-05	MW-20	06 Jun 2022 18:00			08 Jun 2022 13:54	1
HS22060384-06	MW-21	06 Jun 2022 16:17			08 Jun 2022 14:10	20
HS22060384-06	MW-21	06 Jun 2022 16:17			08 Jun 2022 14:05	1
HS22060384-07	DUP 2	07 Jun 2022 11:20			08 Jun 2022 13:38	10
HS22060384-07	DUP 2	07 Jun 2022 11:20			08 Jun 2022 13:23	1
Batch ID: R410286 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS22060384-02	MW-5S	07 Jun 2022 11:20			09 Jun 2022 18:32	1
HS22060384-03	MW-16	07 Jun 2022 12:22			09 Jun 2022 18:42	20
HS22060384-03	MW-16	07 Jun 2022 12:22			09 Jun 2022 18:37	1
HS22060384-04	MW-17	07 Jun 2022 13:27			09 Jun 2022 19:19	20
HS22060384-04	MW-17	07 Jun 2022 13:27			09 Jun 2022 19:14	1
Batch ID: R410339 (0)	**Test Name :** FERROUS IRON BY SM3500 FE D				**Matrix:** Water	
HS22060384-07	DUP 2	07 Jun 2022 11:20			08 Jun 2022 13:20	1
Batch ID: R410397 (0)	**Test Name :** SPECIFIC CONDUCTANCE BY SM 2510B-2011				**Matrix:** Water	
HS22060384-01	MW-3	06 Jun 2022 17:06			10 Jun 2022 12:33	1
HS22060384-02	MW-5S	07 Jun 2022 11:20			10 Jun 2022 12:33	1
HS22060384-03	MW-16	07 Jun 2022 12:22			10 Jun 2022 12:33	1
HS22060384-04	MW-17	07 Jun 2022 13:27			10 Jun 2022 12:33	1
HS22060384-05	MW-20	06 Jun 2022 18:00			10 Jun 2022 12:33	1
HS22060384-06	MW-21	06 Jun 2022 16:17			10 Jun 2022 12:33	1
HS22060384-07	DUP 2	07 Jun 2022 11:20			10 Jun 2022 12:33	1

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22060384

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R410419 (0)	**Test Name :** ALKALINITY BY SM 2320B-2011				**Matrix:** Water	
HS22060384-02	MW-5S	07 Jun 2022 11:20			09 Jun 2022 17:40	1
HS22060384-03	MW-16	07 Jun 2022 12:22			09 Jun 2022 17:40	1
HS22060384-04	MW-17	07 Jun 2022 13:27			09 Jun 2022 17:40	1
HS22060384-07	DUP 2	07 Jun 2022 11:20			09 Jun 2022 17:40	1
Batch ID: R410421 (0)	**Test Name :** FERROUS IRON BY SM3500 FE B				**Matrix:** Water	
HS22060384-02	MW-5S	07 Jun 2022 11:20			10 Jun 2022 13:02	1
HS22060384-03	MW-16	07 Jun 2022 12:22			10 Jun 2022 13:02	1
HS22060384-04	MW-17	07 Jun 2022 13:27			10 Jun 2022 13:02	1
Batch ID: R410423 (0)	**Test Name :** FERROUS IRON BY SM3500 FE D				**Matrix:** Water	
HS22060384-02	MW-5S	07 Jun 2022 11:20			10 Jun 2022 13:11	1
HS22060384-03	MW-16	07 Jun 2022 12:22			10 Jun 2022 13:11	1
HS22060384-04	MW-17	07 Jun 2022 13:27			10 Jun 2022 13:11	1
Batch ID: R410439 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS22060384-02	MW-5S	07 Jun 2022 11:20			10 Jun 2022 20:27	10
Batch ID: R410618 (0)	**Test Name :** SULFIDE BY SM4500 S2-F-2011				**Matrix:** Water	
HS22060384-02	MW-5S	07 Jun 2022 11:20			14 Jun 2022 16:32	1
HS22060384-03	MW-16	07 Jun 2022 12:22			14 Jun 2022 16:32	1
HS22060384-04	MW-17	07 Jun 2022 13:27			14 Jun 2022 16:32	1
HS22060384-07	DUP 2	07 Jun 2022 11:20			14 Jun 2022 16:32	1
Batch ID: R410620 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Water	
HS22060384-01	MW-3	06 Jun 2022 17:06			13 Jun 2022 16:37	1
HS22060384-02	MW-5S	07 Jun 2022 11:20			13 Jun 2022 16:37	1
HS22060384-03	MW-16	07 Jun 2022 12:22			13 Jun 2022 16:37	1
HS22060384-04	MW-17	07 Jun 2022 13:27			13 Jun 2022 16:37	1
HS22060384-05	MW-20	06 Jun 2022 18:00			13 Jun 2022 16:37	1
HS22060384-06	MW-21	06 Jun 2022 16:17			13 Jun 2022 16:37	1
HS22060384-07	DUP 2	07 Jun 2022 11:20			13 Jun 2022 16:37	1
Batch ID: R410708 (0)	**Test Name :** CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993				**Matrix:** Water	
HS22060384-01	MW-3	06 Jun 2022 17:06			15 Jun 2022 15:30	1
HS22060384-02	MW-5S	07 Jun 2022 11:20			15 Jun 2022 15:30	1
HS22060384-03	MW-16	07 Jun 2022 12:22			15 Jun 2022 15:30	1
HS22060384-04	MW-17	07 Jun 2022 13:27			15 Jun 2022 15:30	1
HS22060384-05	MW-20	06 Jun 2022 18:00			15 Jun 2022 15:30	1
HS22060384-06	MW-21	06 Jun 2022 16:17			15 Jun 2022 15:30	1
HS22060384-07	DUP 2	07 Jun 2022 11:20			15 Jun 2022 15:30	1

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22060384

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R410712 (0)	**Test Name :** PH BY SM4500H+ B-2011				**Matrix:** Water	
HS22060384-01	MW-3	06 Jun 2022 17:06			15 Jun 2022 16:36	1
HS22060384-02	MW-5S	07 Jun 2022 11:20			15 Jun 2022 16:36	1
HS22060384-05	MW-20	06 Jun 2022 18:00			15 Jun 2022 16:36	1
HS22060384-06	MW-21	06 Jun 2022 16:17			15 Jun 2022 16:36	1
Batch ID: R410716 (0)	**Test Name :** PH BY SM4500H+ B-2011				**Matrix:** Water	
HS22060384-03	MW-16	07 Jun 2022 12:22			15 Jun 2022 16:47	1
HS22060384-04	MW-17	07 Jun 2022 13:27			15 Jun 2022 16:47	1
HS22060384-07	DUP 2	07 Jun 2022 11:20			15 Jun 2022 16:47	1
Batch ID: R410723 (0)	**Test Name :** FERRIC IRON - BY CALCULATION BY SM3500FED				**Matrix:** Water	
HS22060384-02	MW-5S	07 Jun 2022 11:20			15 Jun 2022 17:39	1
HS22060384-03	MW-16	07 Jun 2022 12:22			15 Jun 2022 17:39	1
HS22060384-04	MW-17	07 Jun 2022 13:27			15 Jun 2022 17:39	1
HS22060384-07	DUP 2	07 Jun 2022 11:20			15 Jun 2022 17:39	1
Batch ID: R410725 (0)	**Test Name :** FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED				**Matrix:** Water	
HS22060384-02	MW-5S	07 Jun 2022 11:20			15 Jun 2022 17:40	1
HS22060384-03	MW-16	07 Jun 2022 12:22			15 Jun 2022 17:40	1
HS22060384-04	MW-17	07 Jun 2022 13:27			15 Jun 2022 17:40	1
HS22060384-07	DUP 2	07 Jun 2022 11:20			15 Jun 2022 17:40	1

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22060384

QC BATCH REPORT

Batch ID: 179808 (0) **Instrument: ICPMS07** **Method: ICP-MS METALS BY SW6020A**

MBLK Sample ID: **MBLK-179808** Units: **mg/L** Analysis Date: **14-Jun-2022 16:45**
Client ID: Run ID: **ICPMS07_410605** SeqNo: **6692282** PrepDate: **10-Jun-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								

LCS Sample ID: **LCS-179808** Units: **mg/L** Analysis Date: **14-Jun-2022 16:47**
Client ID: Run ID: **ICPMS07_410605** SeqNo: **6692283** PrepDate: **10-Jun-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	4.948	0.200	5	0	99.0	80 - 120				

MS Sample ID: **HS22060487-01MS** Units: **mg/L** Analysis Date: **14-Jun-2022 17:03**
Client ID: Run ID: **ICPMS07_410605** SeqNo: **6692544** PrepDate: **10-Jun-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	5.222	0.200	5	0.122	102	80 - 120				

MSD Sample ID: **HS22060487-01MSD** Units: **mg/L** Analysis Date: **14-Jun-2022 17:05**
Client ID: Run ID: **ICPMS07_410605** SeqNo: **6692545** PrepDate: **10-Jun-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	5.111	0.200	5	0.122	99.8	80 - 120	5.222	2.16	20	

PDS Sample ID: **HS22060487-01PDS** Units: **mg/L** Analysis Date: **14-Jun-2022 17:07**
Client ID: Run ID: **ICPMS07_410605** SeqNo: **6692546** PrepDate: **10-Jun-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	11.81	0.200	10	0.122	117	75 - 125				

SD Sample ID: **HS22060487-01SD** Units: **mg/L** Analysis Date: **14-Jun-2022 17:02**
Client ID: Run ID: **ICPMS07_410605** SeqNo: **6692543** PrepDate: **10-Jun-2022** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Iron	0.1302	1.00					0.122	0	10	J

The following samples were analyzed in this batch: HS22060384-02 HS22060384-03 HS22060384-04 HS22060384-07

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22060384

QC BATCH REPORT

Batch ID: 179857 (0) **Instrument: ICPMS07** **Method: DISSOLVED METALS BY SW6020A (DISSOLVED)**

MBLK Sample ID: **MBLK-179857** Units: **mg/L** Analysis Date: **14-Jun-2022 19:41**
Client ID: Run ID: **ICPMS07_410605** SeqNo: **6692606** PrepDate: **13-Jun-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								

LCS Sample ID: **LCS-179857** Units: **mg/L** Analysis Date: **14-Jun-2022 19:43**
Client ID: Run ID: **ICPMS07_410605** SeqNo: **6692607** PrepDate: **13-Jun-2022** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	4.479	0.200	5	0	89.6	80 - 120				

MS Sample ID: **HS22060083-01MS** Units: **mg/L** Analysis Date: **14-Jun-2022 19:49**
Client ID: Run ID: **ICPMS07_410605** SeqNo: **6692610** PrepDate: **13-Jun-2022** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	4.594	1.00	5	0.02332	91.4	75 - 125				

MSD Sample ID: **HS22060083-01MSD** Units: **mg/L** Analysis Date: **14-Jun-2022 19:51**
Client ID: Run ID: **ICPMS07_410605** SeqNo: **6692611** PrepDate: **13-Jun-2022** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	5.028	1.00	5	0.02332	100	75 - 125	4.594	9.02	20	

PDS Sample ID: **HS22060083-01PDS** Units: **mg/L** Analysis Date: **14-Jun-2022 19:53**
Client ID: Run ID: **ICPMS07_410605** SeqNo: **6692612** PrepDate: **13-Jun-2022** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	47.97	1.00	50	0	95.9	75 - 125				

SD Sample ID: **HS22060083-01SD** Units: **mg/L** Analysis Date: **14-Jun-2022 19:47**
Client ID: Run ID: **ICPMS07_410605** SeqNo: **6692609** PrepDate: **13-Jun-2022** DF: **25**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Iron	U	5.00					0.02332	0	10	

The following samples were analyzed in this batch: HS22060384-02 HS22060384-03 HS22060384-04 HS22060384-07

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22060384

QC BATCH REPORT

Batch ID: R410248 (0) **Instrument: UV-2450** **Method: FERROUS IRON BY SM3500 FE B**

MBLK Sample ID: **MBLK-R410248** Units: **mg/L** Analysis Date: **08-Jun-2022 13:12**
Client ID: Run ID: **UV-2450_410248** SeqNo: **6685730** 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-R410248** Units: **mg/L** Analysis Date: **08-Jun-2022 13:12**
Client ID: Run ID: **UV-2450_410248** SeqNo: **6685729** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron	0.248	0.0500	0.25	0	99.2	80 - 120				

MS Sample ID: **HS22060381-03MS** Units: **mg/L** Analysis Date: **08-Jun-2022 13:12**
Client ID: Run ID: **UV-2450_410248** SeqNo: **6685732** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron	0.359	0.0500	0.25	0.118	96.4	75 - 125				

MSD Sample ID: **HS22060381-03MSD** Units: **mg/L** Analysis Date: **08-Jun-2022 13:12**
Client ID: Run ID: **UV-2450_410248** SeqNo: **6685731** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron	0.359	0.0500	0.25	0.118	96.4	75 - 125	0.359	0	20	

The following samples were analyzed in this batch: HS22060384-07

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22060384

QC BATCH REPORT

Batch ID: R410254 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0, REV 2.1, 1993**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **08-Jun-2022 11:37**
Client ID: Run ID: **ICS-Integrion_410254** SeqNo: **6683949** 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								
Nitrate/Nitrite (as N)	U	0.200								
Sulfate	U	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **08-Jun-2022 11:42**
Client ID: Run ID: **ICS-Integrion_410254** SeqNo: **6683950** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.44	0.500	20	0	97.2	90 - 110				
Fluoride	4.305	0.100	4	0	108	90 - 110				
Nitrogen, Nitrate (As N)	4.09	0.100	4	0	102	90 - 110				
Nitrogen, Nitrite (As N)	4.391	0.100	4	0	110	90 - 110				
Nitrate/Nitrite (as N)	8.481	0.200	8	0	106	90 - 110				
Sulfate	19.37	0.500	20	0	96.8	90 - 110				

MS Sample ID: **HS22060384-07MS** Units: **mg/L** Analysis Date: **08-Jun-2022 13:28**
Client ID: **DUP 2** Run ID: **ICS-Integrion_410254** SeqNo: **6683966** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	32.91	0.500	10	24.11	88.0	80 - 120				
Fluoride	3.426	0.100	2	1.407	101	80 - 120				
Nitrogen, Nitrate (As N)	2.074	0.100	2	0.0952	99.0	80 - 120				
Nitrogen, Nitrite (As N)	1.667	0.100	2	0	83.4	80 - 120				
Nitrate/Nitrite (as N)	3.742	0.200	4	0.0952	91.2	80 - 120				
Sulfate	465.8	0.500	10	474.7	-88.5	80 - 120				SEO

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22060384

QC BATCH REPORT

Batch ID: R410254 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MSD Sample ID: **HS22060384-07MSD** Units: **mg/L** Analysis Date: **08-Jun-2022 13:33**
Client ID: **DUP 2** Run ID: **ICS-Integrion_410254** SeqNo: **6683967** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Chloride	32.9	0.500	10	24.11	87.9	80 - 120	32.91	0.0274	20	
Fluoride	3.422	0.100	2	1.407	101	80 - 120	3.426	0.129	20	
Nitrogen, Nitrate (As N)	2.066	0.100	2	0.0952	98.5	80 - 120	2.074	0.391	20	
Nitrogen, Nitrite (As N)	1.672	0.100	2	0	83.6	80 - 120	1.667	0.299	20	
Nitrate/Nitrite (as N)	3.738	0.200	4	0.0952	91.1	80 - 120	3.742	0.0829	20	
Sulfate	466.1	0.500	10	474.7	-85.7	80 - 120	465.8	0.0591	20	SEO

The following samples were analyzed in this batch: HS22060384-01 HS22060384-05 HS22060384-06 HS22060384-07

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22060384

QC BATCH REPORT

Batch ID: R410286 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0, REV 2.1, 1993**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **09-Jun-2022 08:17**
Client ID: Run ID: **ICS-Integrion_410286** SeqNo: **6684819** 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: **09-Jun-2022 08:23**
Client ID: Run ID: **ICS-Integrion_410286** SeqNo: **6684820** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.48	0.500	20	0	97.4	90 - 110				
Fluoride	4.326	0.100	4	0	108	90 - 110				
Nitrogen, Nitrate (As N)	4.11	0.100	4	0	103	90 - 110				
Sulfate	19.43	0.500	20	0	97.1	90 - 110				

MS Sample ID: **HS22060426-04MS** Units: **mg/L** Analysis Date: **09-Jun-2022 09:51**
Client ID: Run ID: **ICS-Integrion_410286** SeqNo: **6684830** PrepDate: DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	954.5	1.00	20	964	-47.5	80 - 120				SEO
Fluoride	5.179	0.200	4	1.045	103	80 - 120				
Nitrogen, Nitrate (As N)	3.675	0.200	4	0	91.9	80 - 120				
Sulfate	133.1	1.00	20	116.5	82.7	80 - 120				O

MS Sample ID: **HS22060381-01MS** Units: **mg/L** Analysis Date: **09-Jun-2022 18:05**
Client ID: Run ID: **ICS-Integrion_410286** SeqNo: **6686134** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	11.2	0.500	10	1.097	101	80 - 120				
Fluoride	2.371	0.100	2	0.1725	110	80 - 120				
Nitrogen, Nitrate (As N)	2.137	0.100	2	0.0784	103	80 - 120				
Sulfate	15.71	0.500	10	5.615	101	80 - 120				

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22060384

QC BATCH REPORT

Batch ID: R410286 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0, REV 2.1, 1993**

MSD Sample ID: **HS22060426-04MSD** Units: **mg/L** Analysis Date: **09-Jun-2022 09:56**
Client ID: Run ID: **ICS-Integrion_410286** SeqNo: **6684831** PrepDate: DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	954.2	1.00	20	964	-48.8	80 - 120	954.5	0.0272	20	SEO
Fluoride	4.908	0.200	4	1.045	96.6	80 - 120	5.179	5.38	20	
Nitrogen, Nitrate (As N)	3.655	0.200	4	0	91.4	80 - 120	3.675	0.535	20	
Sulfate	133	1.00	20	116.5	82.3	80 - 120	133.1	0.0642	20	O

MSD Sample ID: **HS22060381-01MSD** Units: **mg/L** Analysis Date: **09-Jun-2022 18:10**
Client ID: Run ID: **ICS-Integrion_410286** SeqNo: **6686135** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	11.49	0.500	10	1.097	104	80 - 120	11.2	2.56	20	
Fluoride	2.537	0.100	2	0.1725	118	80 - 120	2.371	6.76	20	
Nitrogen, Nitrate (As N)	2.125	0.100	2	0.0784	102	80 - 120	2.137	0.563	20	
Sulfate	15.89	0.500	10	5.615	103	80 - 120	15.71	1.15	20	

The following samples were analyzed in this batch: HS22060384-02 HS22060384-03 HS22060384-04

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22060384

QC BATCH REPORT

Batch ID: R410339 (0) **Instrument:** UV-2450 **Method:** FERROUS IRON BY SM3500 FE D (DISSOLVED)

MBLK Sample ID: **MBLK-R410339** Units: **mg/L** Analysis Date: **08-Jun-2022 13:20**
Client ID: Run ID: **UV-2450_410339** SeqNo: **6685747** 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-R410339** Units: **mg/L** Analysis Date: **08-Jun-2022 13:20**
Client ID: Run ID: **UV-2450_410339** SeqNo: **6685746** 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: **HS22060381-03MS** Units: **mg/L** Analysis Date: **08-Jun-2022 13:20**
Client ID: Run ID: **UV-2450_410339** SeqNo: **6685749** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron, Dissolved	0.368	0.0500	0.25	0.127	96.4	80 - 120				

MSD Sample ID: **HS22060381-03MSD** Units: **mg/L** Analysis Date: **08-Jun-2022 13:20**
Client ID: Run ID: **UV-2450_410339** SeqNo: **6685748** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron, Dissolved	0.367	0.0500	0.25	0.127	96.0	80 - 120	0.368	0.272	20	

The following samples were analyzed in this batch: HS22060384-07

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22060384

QC BATCH REPORT

Batch ID: R410397 (0) **Instrument:** WetChem_HS **Method:** SPECIFIC CONDUCTANCE BY SM 2510B-2011

MBLK Sample ID: **MBLK-R410397** Units: **umhos/cm @ 25.0 °C** Analysis Date: **10-Jun-2022 12:33**
Client ID: Run ID: **WetChem_HS_410397** SeqNo: **6686952** 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-R410397** Units: **umhos/cm @ 25.0 °C** Analysis Date: **10-Jun-2022 12:33**
Client ID: Run ID: **WetChem_HS_410397** SeqNo: **6686951** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	1518	5.00	1413	0	107	80 - 120				

DUP Sample ID: **HS22060381-01DUP** Units: **umhos/cm @ 25.0 °C** Analysis Date: **10-Jun-2022 12:33**
Client ID: Run ID: **WetChem_HS_410397** SeqNo: **6686953** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	252.8	5.00					252.7	0.0396	20	

The following samples were analyzed in this batch: HS22060384-01 HS22060384-02 HS22060384-03 HS22060384-04 HS22060384-05 HS22060384-06 HS22060384-07

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22060384

QC BATCH REPORT

Batch ID: R410419 (0) **Instrument: ManTech01** **Method: ALKALINITY BY SM 2320B-2011**

MBLK Sample ID: **MBLK-R410419** Units: **mg/L** Analysis Date: **09-Jun-2022 17:40**
Client ID: Run ID: **ManTech01_410419** SeqNo: **6687393** 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: **LCS-R410419** Units: **mg/L** Analysis Date: **09-Jun-2022 17:40**
Client ID: Run ID: **ManTech01_410419** SeqNo: **6687392** 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)	996	5.00	1000	0	99.6	85 - 115				
Alkalinity, Total (As CaCO3)	1035	5.00	1000	0	104	85 - 115				

LCSD Sample ID: **LCSD-R410419** Units: **mg/L** Analysis Date: **09-Jun-2022 17:40**
Client ID: Run ID: **ManTech01_410419** SeqNo: **6687391** 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)	1011	5.00	1000	0	101	85 - 115	996	1.47	20	
Alkalinity, Total (As CaCO3)	1011	5.00	1000	0	101	85 - 115	1035	2.38	20	

DUP Sample ID: **HS22060362-13DUP** Units: **mg/L** Analysis Date: **09-Jun-2022 17:40**
Client ID: Run ID: **ManTech01_410419** SeqNo: **6687394** 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)	44.55	5.00					44.22	0.743	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)	44.5	5.00					44.22	0.631	20	

The following samples were analyzed in this batch: HS22060384-02 HS22060384-03 HS22060384-04 HS22060384-07

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22060384

QC BATCH REPORT

Batch ID: R410421 (0) **Instrument: UV-2450** **Method: FERROUS IRON BY SM3500 FE B**

MBLK Sample ID: **MBLK-R410421** Units: **mg/L** Analysis Date: **10-Jun-2022 13:02**
Client ID: Run ID: **UV-2450_410421** SeqNo: **6687404** 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-R410421** Units: **mg/L** Analysis Date: **10-Jun-2022 13:02**
Client ID: Run ID: **UV-2450_410421** SeqNo: **6687403** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron	0.237	0.0500	0.25	0	94.8	80 - 120				

MS Sample ID: **HS22060384-02MS** Units: **mg/L** Analysis Date: **10-Jun-2022 13:02**
Client ID: **MW-5S** Run ID: **UV-2450_410421** SeqNo: **6687406** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron	0.243	0.0500	0.25	-0.005	99.2	75 - 125				

MSD Sample ID: **HS22060384-02MSD** Units: **mg/L** Analysis Date: **10-Jun-2022 13:02**
Client ID: **MW-5S** Run ID: **UV-2450_410421** SeqNo: **6687405** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron	0.24	0.0500	0.25	-0.005	98.0	75 - 125	0.243	1.24	20	

The following samples were analyzed in this batch: HS22060384-02 HS22060384-03 HS22060384-04

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22060384

QC BATCH REPORT

Batch ID: R410423 (0) **Instrument:** UV-2450 **Method:** FERROUS IRON BY SM3500 FE D (DISSOLVED)

MBLK Sample ID: **MBLK-R410423** Units: **mg/L** Analysis Date: **10-Jun-2022 13:11**
Client ID: Run ID: **UV-2450_410423** SeqNo: **6687420** 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-R410423** Units: **mg/L** Analysis Date: **10-Jun-2022 13:11**
Client ID: Run ID: **UV-2450_410423** SeqNo: **6687419** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron, Dissolved	0.237	0.0500	0.25	0	94.8	80 - 120				

MS Sample ID: **HS22060384-02MS** Units: **mg/L** Analysis Date: **10-Jun-2022 13:11**
Client ID: **MW-5S** Run ID: **UV-2450_410423** SeqNo: **6687422** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron, Dissolved	0.252	0.0500	0.25	0.001	100	80 - 120				

MSD Sample ID: **HS22060384-02MSD** Units: **mg/L** Analysis Date: **10-Jun-2022 13:11**
Client ID: **MW-5S** Run ID: **UV-2450_410423** SeqNo: **6687421** 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	0.001	99.6	80 - 120	0.252	0.797	20	

The following samples were analyzed in this batch: HS22060384-02 HS22060384-03 HS22060384-04

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22060384

QC BATCH REPORT

Batch ID: R410439 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0, REV 2.1, 1993**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **10-Jun-2022 16:23**
Client ID: Run ID: **ICS-Integrion_410439** SeqNo: **6687945** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	U	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **10-Jun-2022 16:28**
Client ID: Run ID: **ICS-Integrion_410439** SeqNo: **6687946** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	19.41	0.500	20	0	97.0	90 - 110				

MS Sample ID: **HS22060501-07MS** Units: **mg/L** Analysis Date: **10-Jun-2022 18:04**
Client ID: Run ID: **ICS-Integrion_410439** SeqNo: **6688901** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	223.2	0.500	10	218	51.3	80 - 120				SEO

MS Sample ID: **HS22060495-01MS** Units: **mg/L** Analysis Date: **10-Jun-2022 20:59**
Client ID: Run ID: **ICS-Integrion_410439** SeqNo: **6687987** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	106.2	0.500	10	98.55	76.6	80 - 120				SEO

MSD Sample ID: **HS22060501-07MSD** Units: **mg/L** Analysis Date: **10-Jun-2022 18:09**
Client ID: Run ID: **ICS-Integrion_410439** SeqNo: **6688902** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	223.1	0.500	10	218	50.8	80 - 120	223.2	0.0233	20	SEO

MSD Sample ID: **HS22060495-01MSD** Units: **mg/L** Analysis Date: **10-Jun-2022 21:04**
Client ID: Run ID: **ICS-Integrion_410439** SeqNo: **6687988** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	106	0.500	10	98.55	74.2	80 - 120	106.2	0.228	20	SEO

The following samples were analyzed in this batch: HS22060384-02

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22060384

QC BATCH REPORT

Batch ID: R410618 (0) **Instrument: WetChem_HS** **Method: SULFIDE BY SM4500 S2-F-2011**

MBLK Sample ID: **MBLK-R410618** Units: **mg/L** Analysis Date: **14-Jun-2022 16:32**
Client ID: Run ID: **WetChem_HS_410618** SeqNo: **6692021** 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-R410618** Units: **mg/L** Analysis Date: **14-Jun-2022 16:32**
Client ID: Run ID: **WetChem_HS_410618** SeqNo: **6692020** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide	22.16	1.00	25	0	88.6	85 - 115				

LCSD Sample ID: **LCSD-R410618** Units: **mg/L** Analysis Date: **14-Jun-2022 16:32**
Client ID: Run ID: **WetChem_HS_410618** SeqNo: **6692019** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide	22.36	1.00	25	0	89.4	85 - 115	22.16	0.898	20	

MS Sample ID: **HS22060342-01MS** Units: **mg/L** Analysis Date: **14-Jun-2022 16:32**
Client ID: Run ID: **WetChem_HS_410618** SeqNo: **6692022** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide	22.16	1.00	25	-2.04	96.8	80 - 120				

The following samples were analyzed in this batch: HS22060384-02 HS22060384-03 HS22060384-04 HS22060384-07

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22060384

QC BATCH REPORT

Batch ID: R410620 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK Sample ID: **WBLK-061322** Units: **mg/L** Analysis Date: **13-Jun-2022 16:37**
Client ID: Run ID: **Balance1_410620** SeqNo: **6692085** 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-061322** Units: **mg/L** Analysis Date: **13-Jun-2022 16:37**
Client ID: Run ID: **Balance1_410620** SeqNo: **6692086** 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)	1016	10.0	1000	0	102	85 - 115				

DUP Sample ID: **HS22060384-07DUP** Units: **mg/L** Analysis Date: **13-Jun-2022 16:37**
Client ID: **DUP 2** Run ID: **Balance1_410620** SeqNo: **6692084** 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)	1174	10.0					1176	0.17	5	

DUP Sample ID: **HS22060287-01DUP** Units: **mg/L** Analysis Date: **13-Jun-2022 16:37**
Client ID: Run ID: **Balance1_410620** SeqNo: **6692064** 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)	1352	10.0					1348	0.296	5	

The following samples were analyzed in this batch: HS22060384-01 HS22060384-02 HS22060384-03 HS22060384-04 HS22060384-05 HS22060384-06 HS22060384-07

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22060384

QC BATCH REPORT

Batch ID: R410708 (0) **Instrument:** WetChem_HS **Method:** CHEMICAL OXYGEN DEMAND BY E410.4, REV 2.0, 1993

MBLK Sample ID: **MBLK-R410708** Units: **mg/L** Analysis Date: **15-Jun-2022 15:30**
Client ID: Run ID: **WetChem_HS_410708** SeqNo: **6694290** 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-R410708** Units: **mg/L** Analysis Date: **15-Jun-2022 15:30**
Client ID: Run ID: **WetChem_HS_410708** SeqNo: **6694289** 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: **HS22060384-06MS** Units: **mg/L** Analysis Date: **15-Jun-2022 15:30**
Client ID: **MW-21** Run ID: **WetChem_HS_410708** SeqNo: **6694292** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	51	15.0	50	2	98.0	80 - 120				

MSD Sample ID: **HS22060384-06MSD** Units: **mg/L** Analysis Date: **15-Jun-2022 15:30**
Client ID: **MW-21** Run ID: **WetChem_HS_410708** SeqNo: **6694291** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	50	15.0	50	2	96.0	80 - 120	51	1.98	20	

The following samples were analyzed in this batch:

HS22060384-01	HS22060384-02	HS22060384-03	HS22060384-04
HS22060384-05	HS22060384-06	HS22060384-07	

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22060384

QC BATCH REPORT

Batch ID: **R410712 (0)** **Instrument:** **WetChem_HS** **Method:** **PH BY SM4500H+ B-2011**

DUP Sample ID: **HS22060384-02DUP** Units: **pH Units** Analysis Date: **15-Jun-2022 16:36**
Client ID: **MW-5S** Run ID: **WetChem_HS_410712** SeqNo: **6694415** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.2	0.100					8.19	0.122	10	
Temp Deg C @pH	20.6	0					20.4	0.976	10	

The following samples were analyzed in this batch: HS22060384-01 HS22060384-02 HS22060384-05 HS22060384-06

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: HS22060384

QC BATCH REPORT

Batch ID: **R410716 (0)** **Instrument:** **WetChem_HS** **Method:** **PH BY SM4500H+ B-2011**

DUP Sample ID: **HS22060384-07DUP** Units: **pH Units** Analysis Date: **15-Jun-2022 16:47**
Client ID: **DUP 2** Run ID: **WetChem_HS_410716** SeqNo: **6694479** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.46	0.100					8.4	0.712	10	
Temp Deg C @pH	20.2	0					21.6	6.7	10	

The following samples were analyzed in this batch: HS22060384-03 HS22060384-04 HS22060384-07

Client: Altamira
Project: WFEC CCR/Landfill
WorkOrder: **HS22060384**

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
Dept of Defense	L21-682	31-Dec-2023
Florida	E87611-34	30-Jun-2022
Illinois	2000322022-9	09-May-2023
Kansas	E-10352 2021-2022	31-Jul-2022
Louisiana	03087, 2021-2022	30-Jun-2022
Maryland	343, 2021-2022	30-Jun-2022
North Carolina	624-2022	31-Dec-2022
Oklahoma	2021-080	31-Aug-2022
Texas	T104704231-22-29	30-Apr-2023
Utah	TX026932021-12	30-Jul-2022

Sample Receipt Checklist

Work Order ID: HS22060384 **Date/Time Received:** **08-Jun-2022 10:00**

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

Completed By:	/S/ Paresh M. Giga	08-Jun-2022 11:49	**Reviewed by:**	/S/ Anna Kinchen	10-Jun-2022 10:44
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **Water** Carrier name: **FedEx Priority Overnight**

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 ☐	COC IDs:none
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):	1.7C/2.2C U/C	IR31
Cooler(s)/Kit(s):	43078	
Date/Time sample(s) sent to storage:	6/8/22 12:10	

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: 1 x missing cooler.
Samples not received :
MW-5S MW-16 MW-17

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

Sample Receipt Checklist

Work Order ID: HS22060384 **Date/Time Received:** **08-Jun-2022 10:00**

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

Completed By:	/S/ Paresh M. Giga	09-Jun-2022 15:31	**Reviewed by:**	/S/ Anna Kinchen	10-Jun-2022 10:44
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **Water** Carrier name: **FedEx Priority Overnight**

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 ☐	COC IDs:none
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):	1.6C/2.1C U/C	IR31
Cooler(s)/Kit(s):	Blue	
Date/Time sample(s) sent to storage:	6/9/22 15:45	

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: SRC for missing cooler received 6/9/22
Proceed with all out of hold analysis for :
MW-5S MW-16 & MW-17 per RG

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

ALTAMIRA
formerly known as Enviro Clean Cardinal

PROJECT NUMBER: WFEE160022/0004

PROJECT NAME: ADD TO WO HS22040016 WFEC/CCR LANDFILL

COC: 1 of 1

CLIENT CONTACT: HEATHER TIFFANY

CLIENT EMAIL: LABDATA HEATHER.TIFFANY @ALTAMIRAUS.COM

CLIENT PHONE: 405-618-2021

LABORATORY / LAB PM: ALS/RAGEN GIGA

CLIENT ADDRESS: 525 CENTRAL PARK DR. STE 600 OKC, OK 73105

TAT: 5 DAY – NO CHARGE

LAB ADDRESS: 16450 STANCLIFF RD STE 210 HOUSTON, TX 77099

SPECIAL INSTRUCTIONS: SHORT HOLD: NO3 & FERR FE

SHIPMENT METHOD: FED EX

TRACKING: 5789 1993 8594

PARAMETERS

NO.	SAMPLE DESCRIPTION	DATE	TIME	MATRIX	PRES.	NUMBER OF CONTAINERS	FIELD FILTERED (YES / NO)	pH	NITRATE	TDS	Cl, F, SO4	SP. COND	COD	Fe, FERROUS & FERRIC	FE DISS, FERROUS & FERRIC	TOTAL Fe	DISS Fe	SULFIDE	HCO3, CO3 ALK, HYDROXIDE	HOLD
1	MW-3	6/6/22	1706	W	3,9	2	N	X	X	X	X	X	X							
2	MW-5S	6/7/22	1120	W	1,2,3,4,9	7	N	X	X	X	X	X	X	X	X	X	X	X	X	
3	MW-16	6/7/22	1222	W	↓	7	N	X	X	X	X	X	X	X	X	X	X	X	X	
4	MW-17	6/7/22	~~1259~~ 1327	W	↓	7	N	X	X	X	X	X	X	X	X	X	X	X	X	
5	MW-20	6/6/22	1800	W	3,9	2	N	X	X	X	X	X	X							
6	MW-21	6/6/22	1617	W	3,9	2	N	X	X	X	X	X	X							
7	Dup 2	6/7/22	1120	~~1324~~ B	1,3,2,4,9			X	X	X	X	X	X	X	X	X	X	X	X	
8	Temp Blank			W		1	N													
9				1327																
10																				
11																				
12																				
13																				
14																				
15																				

HS22060384
Altamira
WFEC CCR/Landfill

SAMPLER(S) NAME: Bradley VanCleave **DATE:** 6/7/22 **TIME:** 1900

Total # of Containers:

SAMPLER(S) SIGNATURE: [signature] **DATE:** 6/7/22 **TIME:** 1900

RELINQUISHED BY: Bradley VanCleave **DATE:** 6/7/22 **TIME:** 1800

RECEIVED BY: PG **DATE:** 06/08/22 **TIME:** 10:00

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 Cooler #43078 Temp 1.7° IR #31 CF 0.5

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

43078

CUSTODY SEAL

Date: 6/7/22 Time: 1400
Name:
Company:

Seal Broken By:
Date: 06/08/22

43078 JUN 08 2022

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

43078

CUSTODY SEAL

Date: 6/7/22 Time: 1400
Name:
Company:

Seal Broken By:
Date: 06/08/22

SHORT HOLDING TIME

43078

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

NORMAN, OK 73069
UNITED STATES US

SHIP DATE: 02JUN22
ACTWGT: 1.00 LB MAN
CAD: 0221247/CAFE3512
DIMS: 26x14x14 IN

TO SHIPPING DEPT
ALS LABORATORY GROUP
10450 STANCLIFF RD
SUITE 210
HOUSTON TX 77099
(281) 530-5656
REF: WFEC/RESAMPLE - BO 85783 - RG

RMA:

FedEx Express

FedEx
TRK# 0221 5789 1993 8609

WED - 08 JUN 10:30A
PRIORITY OVERNIGHT

SAT
GHT

77099
TX-US IAH 099

XA SGRA

Part # 159469-434 MTW EXP 01/23

570C2/274F/6F4D

WC3C9182 06/07 577J2/274F/FE4A

Rec'd 4/5/22 14:52

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

Date: 04/7
Name:
Company:

CUSTODY SEAL
Time: 1900
Seal Broken By:
Date: 6/9/22

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

CUSTODY SEAL
Time: 1200
Seal Broken By:
Date: 6/9/22

FedEx
TRK# 0221 5789 1993 8594
XA SGRA
PRIORITY OVERNIGHT
AA
77099
TX-US
IAH
50067 08Jun 08:51 MEMH 577C2/274F/C000

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	°C	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	
				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
					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)
Detection Monitoring Parameters				***Units***		UNFILTERED	FILTERED									
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	---
Calcium	None	670.30	Not Applicable	mg/L	206 #	198	225	225	213	214	183	181	207	155	210	---
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
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
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
Sulfate	250	1,396	Not Applicable	mg/L	1270 #	1220	1450	1150	1210	1240	1320	1290	1260	1,200	1790^	1090
Total Dissolved Solids	500	2,191	Not Applicable	mg/L	2130 #	2110	2060	2100	2110	2150	2020	2010	2030	1,970	2700^	1860
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	---
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	---
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	---
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	---
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	<0.005 #	<0.000400	<0.000400	<0.000400	0.00142 J	<0.000400	<0.000400	<0.000400	<0.000400	0.000467 J	<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	---
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
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	0.147 J #	0.152	0.148	0.148	0.136	0.145	0.118	0.122	0.138	0.137	0.142	---
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	---
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	---
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	---
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	---
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	---
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
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
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
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																
Temperature	None	Not Applicable	Not Applicable	°C	23.1	13.1	---	18.31	24.37	23.62	23.8	---	15.9	20.4	16.4	25
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
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	2814	2699	---	2778	2797	2576	2670	---	2666	2,676	2,098	2,496
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
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
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

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-5S	DUP 3	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S (Shallow)	MW-5S (Deep)
				Sample Date:	13-Dec-16	13-Dec-16	25-Jan-17	3-Feb-17	29-Mar-17	7-Apr-17	1-Jun-17	9-Jun-17	14-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	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	ºC	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:	MW-5S	MW-5S		MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	
				Sample Date:	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
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)
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	---
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	---
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
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
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
Sulfate	250	626	Not Applicable	mg/L	447 #	457	472	394	434	408	485	477	499	1540^	503
Total Dissolved Solids	500	1,334	Not Applicable	mg/L	1140 #	1120	1210	1090	1180	904	1080	1140	1140	1540^	1170
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	412	444	405	470	---	---
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	12.6	---	---	---	15	20.5	<5	9.52	---	---
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	427	---	---	---	397	424	405	460	---	---
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	<5	---	---	---	<5	<5	<5	<5.00	---	---
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<0.0120	<0.0120	0.0170 J	0.0270 J	---	---
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<0.0120	<0.0120	<0.0120	<0.0120	---	---
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.029(J)	<0.0200	<0.020	<0.0200	---	---
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<0.020	<0.020 H	---	---
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<0.020	0.0270 J	---	---
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<0.020	<0.020	---	---
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	5.73	5.58	---	---	5.16	4.38	4.53	4.60	---	---
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.00308(J)	0.00244 J	0.00287 J	0.00296 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
Potassium	None	Not Applicable	Not Applicable	mg/L	---	4.49	4.27	---	---	3.48	3.94	3.25	3.96	---	---
Sodium	None	Not Applicable	Not Applicable	mg/L	---	405	257	---	---	277	335	312	243	---	---
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	1730 #	1870	---	---	---	---	1960	1770	1820	15600^	2,280
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<1	1.97	<1	<1.00	---	---
Field Parameters															
Temperature	None	Not Applicable	Not Applicable	ºC	25.3	13.4	---	18.78	25.18	24.37	21.5	14.7	23.7	16.4	19.8
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
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	1871	1791	---	1669	1826	1665	1794	1745	1,863	1372	1,820
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
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
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

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	DUP 1	MW-7S	MW-7S	MW-7S	MW-7S (Shallow)	DUP1 (Shallow)	MW-7S (Deep)
				Sample Date:	13-Dec-16	25-Jan-17	3-Feb-17	29-Mar-17	7-Apr-17	31-May-17	31-May-17	9-Jun-17	10-Aug-17	17-May-18	3-Aug-18	3-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	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	
				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
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)
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	---
Calcium	None	670.30	Not Applicable	mg/L	76 #	277	293	271	81.1	160	90.2	254	219	97.1	302	---
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	---
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	---
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	---
Sulfate	250	1,281	Not Applicable	mg/L	1600 #	1200	1110	1040	633	970	759	1200	1190	690	1190	---
Total Dissolved Solids	500	1,863	Not Applicable	mg/L	1230 #	1670	1890	1890	1270	1680	1340	2060	2000	1290	1920	---
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	<0.004 #	0.000413 J	<0.000400	0.00116 J	0.000412 J	0.000650 J	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	---
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	---
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	---
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	<0.005 #	<0.000400	<0.000400	<0.000400	0.000994 J	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	0.000494 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	---
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	---
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	0.0714 J #	0.0558	0.0606	0.0593	0.0608	0.0681	0.065	0.0472	0.0468	0.0645	0.0533	---
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	---
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	---
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	2.07 +/- 0.453 #	1.34	---	0.9	<0.71	1.05	1.2	1.73	1.92	1.95	1.11	---
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	---
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	264	315	180	177	343	---	---
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	<5	---	---	---	<5	<5	<5	<5	<5.00	---	---
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	222	---	---	---	264	315	180	177	343	---	---
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	<5	---	---	---	<5	<5	<5	<5	<5.00	---	---
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.278	0.111 J	0.0145 J	0.0156 J	0.310	---	---
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.034(J)	0.235	0.0154 J	0.0234 J	0.134 J	---	---
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.306	0.216	<0.02	<0.02	0.207	---	---
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<0.02	<0.02	<0.0200 H	---	---
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<0.02	<0.02	0.103	---	---
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<0.02	0.0234 J	0.134	---	---
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	19	18.7	---	---	17.1	12	16.9	17.4	12.2	---	---
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.000987(J)	0.00103 J	0.000846 J	0.000941 J	0.00121 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	---
Potassium	None	Not Applicable	Not Applicable	mg/L	---	4.67	4.79	---	---	5.33	5.1	4.06	4.18	5.14	---	---
Sodium	None	Not Applicable	Not Applicable	mg/L	---	274	294	---	---	313	272	230	197	261	---	---
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	1610 #	2240	---	---	---	---	2110	2380	2380	1860	2,530	---
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<1	1.48	<1	<1	<1.00	---	---
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	---
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	---
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	1887	2180	---	2326	1944	2097	1945	2377	---	1,973	2,385	---
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	---
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	---
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	---

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: / Units	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																
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	
				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
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)
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	---
Calcium	None		Not Applicable	mg/L	299 #	270	360	334	348	130	182	243	242	284	237	116	---
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	---
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	---
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	---
Sulfate	250		Not Applicable	mg/L	1400 #	1450	1420	1450	1440	1450	1380	1390	1480	1470	1570	1,510	---
Total Dissolved Solids	500		Not Applicable	mg/L	2350 #	2350	2220	2270	2260	2590	2350	2450	2360	2320	2360	2,520	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	3728	3569	---	---	---	3688	3751	3474	3576	3616	3,688	3,658	---
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	---
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	---
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	---

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	°C	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: / Sample Date: / Units	MW-14A 4-Oct-18	MW-14A 11-Jan-19		MW-14A 24-Apr-19	MW-14A 2-Oct-19	MW-14A 17-Jun-20	MW-14A 8-Oct-20	MW-14A 31-Mar-21	MW-14A 13-Oct-21	MW-14 30-Mar-22	MW-14 Jun-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)
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	---
Calcium	None		Not Applicable	mg/L	319 #	402	388	314	306	280	278	298	263	330	---
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	---
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	---
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	---
Sulfate	250		Not Applicable	mg/L	1650 #	1660	1630	1540	1580	1650	1770	1680	1690	1,610	---
Total Dissolved Solids	500		Not Applicable	mg/L	2710 #	2590	2580	2680	2750	2780	2630	2680	2630	2,690	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	327	327	332	348	---	---
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	<5	---	---	---	<5	<5	<5	<5.00	---	---
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	321	---	---	---	327	327	332	348	---	---
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	<5	---	---	---	<5	<5	<5	<5.00	---	---
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.771(J)	0.236	0.162 J	1.22	---	---
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<0.0120	0.169 J	0.150 J	0.357	---	---
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.098	0.184	0.055	0.285	---	---
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	0.0340 J	<0.0200 H	---	---
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	0.107	0.935	---	---
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	0.116	0.357	---	---
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	28.8	27.9	---	---	26.6	26.2	25.9	26.5	---	---
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.000768(J)	0.000621 J	0.00165 J	<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	---
Potassium	None	Not Applicable	Not Applicable	mg/L	---	8.64	8.37	---	---	7.66	7.94	7.87	7.84	---	---
Sodium	None	Not Applicable	Not Applicable	mg/L	---	516	467	---	---	382	388	413	388	---	---
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	3000 #	3270	---	---	---	---	3660	3260	3320	3,490	---
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<1	<1	<1	3.08	---	---
Field Parameters															
Temperature	None	Not Applicable	Not Applicable	°C	23.1	16.2	---	17.75	24.4	21	23.7	15.84	20.0	15.2	---
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	---
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	3491	3251	---	3386	3435	3107	3394	4453	2,989	3,300	---
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	---
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	---
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	---

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
					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	3.33	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	ºC	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. 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-15A	DUP 2	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
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)
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	---
Calcium	None	670.30	Not Applicable	mg/L	170 #	171 #	129	187	92	82.4	141	89.8	78.6	96.6	119	---
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	---
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	---
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	---
Sulfate	250	1,824	Not Applicable	mg/L	1570 #	1580 #	1610	1540	1310	1510	1680	1650	1590	1580	1,540	---
Total Dissolved Solids	500	2,774	Not Applicable	mg/L	2650 #	2570 #	2590	2640	2570	2500	2520	2460	2420	2370	2,450	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	209	204	196	226	---	---
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	<5	---	---	---	<5	<5	<5	<5.00	---	---
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	149	---	---	---	209	204	196	226	---	---
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	---	<5	---	---	---	<5	<5	<5	<5.00	---	---
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	0.0535(J)	0.0496 J	0.0492 J	0.368	---	---
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	<0.0120	0.165 J	0.133 J	0.590	---	---
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	0.0410(J)	0.0210 J	0.054	0.284	---	---
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	0.0320 J	<0.0200 H	---	---
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<0.02	0.0840	---	---
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	0.101	0.590	---	---
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	---	12.4	10.9	---	---	165	11	10.9	10.2	---	---
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	0.168	0.153	0.159	0.181	---	---
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	---
Potassium	None	Not Applicable	Not Applicable	mg/L	---	---	5.98	5.47	---	---	8.24	5.15	5.47	4.97	---	---
Sodium	None	Not Applicable	Not Applicable	mg/L	---	---	746	703	---	---	1040	627	594	421	---	---
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	3490 #	3480 #	3540	---	---	---	---	3780	3400	3370	3,620	---
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	1.12	<1	<1	<1.00	---	---
Field Parameters																
Temperature	None	Not Applicable	Not Applicable	ºC	23.1	---	18.5	---	20.72	27.05	24.09	22.2	16.37	22.4	18.1	---
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	---
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	3563	---	3449	---	3544	3575	3337	3422	4,645	3,431	3,386	---
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	---
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	---
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	---

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	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	
				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
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)
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	---
Calcium	None	670.30	Not Applicable	mg/L	221 #	215	215	192	149	186	166	140	158	153	---
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
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
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
Sulfate	250	1,494	Not Applicable	mg/L	959 #	1020	1030	974	1020	1030	929	1070	1110	1100^	1090
Total Dissolved Solids	500	1,883	Not Applicable	mg/L	1780 #	1740	1670	1740	1810	1610	1610	1790	1590	1670^	1700
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	232	233	228	264	---	---
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	<5	---	---	---	<5	<5	<5	<5.00	---	---
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	256	---	---	---	232	233	228	264	---	---
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	<5	---	---	---	<5	<5	<5	<5.00	---	---
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.0358(J)	0.125 J	0.0536 J	0.369	---	---
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.0160(J)	0.0694 J	0.0140 J	0.190 J	---	---
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.0380(J)	0.0240 J	<0.020	0.191	---	---
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<0.020	<0.0200 H	---	---
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	0.0536	0.178	---	---
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<0.02	0.190	---	---
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	10.2	10.2	---	---	8.44	7.59	7.65	7.38	---	---
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.173	0.16	0.18	0.189	---	---
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
Potassium	None	Not Applicable	Not Applicable	mg/L	---	4.18	4.07	---	---	2.85	3.09	3.12	3.18	---	---
Sodium	None	Not Applicable	Not Applicable	mg/L	---	405	394	---	---	309	316	325	295	---	---
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	2240 #	2340	---	---	---	---	2400	2420	2340	2500^	2,910
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<1	1.4	<1	<1.00	---	---
Field Parameters				***Units***											
Temperature	None	Not Applicable	Not Applicable	ºC	25.4	14.8	---	19.31	24.89	21.9	23.5	16.32	23.0	15.9	20.0
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
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	2816	2273	---	2330	2836	2438	2615	3178	2,699	1,865	2,358
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
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
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

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	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
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	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	
				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
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)
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	---
Calcium	None	670.30	Not Applicable	mg/L	461 #	591	499	499	555	494	453	467	428	435	---
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
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
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
Sulfate	250	1,557	Not Applicable	mg/L	821 #	1480	1200	1100	1310	1390	1,220 H	1310	1390	1970^	1,460
Total Dissolved Solids	500	2,343	Not Applicable	mg/L	1670 #	2300	1870	2400	2160	2230	2160	2200	2210	2340^	2,220
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	284	273	269	288	---	---
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	<5	---	---	---	<5	<5	<5	<5.00	---	---
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	280	---	---	---	284	273	269	288	---	---
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	<5	---	---	---	<5	<5	<5	<5.00	---	---
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<0.0120	<0.0120	0.0541 J	<0.0120	---	---
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<0.0120	<0.0120	<0.0120	0.0198 J	---	---
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.02(J)	<0.02	<0.02	<0.0200	---	---
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<0.02	<0.0200 H	---	---
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	0.0541	<0.0200	---	---
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<0.02	<0.0200	---	---
Magnesium	None	Not Applicable	Not Applicable	mg/L	---	38.1	31.3	---	---	37.8	30.9	29.3	34.6	---	---
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.00123(J)	<0.000600	0.00292 J	<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
Potassium	None	Not Applicable	Not Applicable	mg/L	---	5.37	4.9	---	---	5.15	4.42	4.19	4.94	---	---
Sodium	None	Not Applicable	Not Applicable	mg/L	---	35.7	32.9	---	---	35.6	29.2	28.2	32.5	---	---
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	1920 #	2450	---	---	---	---	2610	2460	2390	11900 ^	2,920
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<1	<1	<1	1.12	---	---
Field Parameters				***Units***											
Temperature	None	Not Applicable	Not Applicable	ºC	23.3	15.9	---	19.26	23.63	21.2	23.2	21.04	22.9	18.3	22.5
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
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	2548	2416	---	2470	2458	2344	2393	3321	2,467	1,811	2,369
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
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
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

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-18 1-Jun-16	MW-18 3-Aug-16	MW-18 30-Sep-16	DUP 2 30-Sep-16	MW-18 2-Dec-16	MW-18 31-Jan-17	MW-18 5-Apr-17	MW-18 7-Jun-17	MW-18 10-Aug-17	MW-18 18-May-18	MW-18 (Shallow) 2-Aug-18	MW-18 (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	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	ºC	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. 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-18	MW-18		MW-18	MW-18	MW-18	MW-18	MW-18	MW-18	MW-18	DUP 3	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
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)
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	---
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	---
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	---
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	---
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	---
Sulfate	250	1,820	Not Applicable	mg/L	1090 #	1110	1120	933	1020	888	794	904	896	837	842	---
Total Dissolved Solids	500	2,006	Not Applicable	mg/L	1760 #	1630	1660	1680	1550	1340	1270	1260	1320	1,300	1,310	---
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	0.00319 #	0.0032	0.00325	0.00308	0.00264	0.00272	0.00276	0.00238	0.00299	0.00290	0.00302	---
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	---
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 #	0.000374 J	0.000431 J	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	0.000298 J	0.000202 J	0.000207 J	---
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	---
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	---
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	---
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	0.0105 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	---
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	---
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	---
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	---
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	---
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	---
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	---
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	71	69.9	65.5	73.8	---	---	---
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	42.2	---	---	---	60.6	64.3	46.8	55.8	---	---	---
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	<5	---	---	---	<5	<5	<5	<5.00	---	---	---
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	32.9	---	---	---	10.4	5.63	18.7	17.9	---	---	---
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<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	---	---	---
Iron, Ferrous	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.02(J)	<0.020	<0.02	<0.0200	---	---	---
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<0.02	<0.0200 H	---	---	---
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<0.02	<0.0200	---	---	---
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	<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	---	---	---
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.18	0.166	0.215	0.211	---	---	---
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	---
Potassium	None	Not Applicable	Not Applicable	mg/L	---	22.3	21.9	---	---	15.9	14.6	13.6	15.0	---	---	---
Sodium	None	Not Applicable	Not Applicable	mg/L	---	603	510	---	---	376	348	324	329	---	---	---
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	2590 #	2520	---	---	---	---	2200	2090	2040	2,070	2,080	---
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<1	<1	<1	<1.00	---	---	---
Field Parameters																
Temperature	None	Not Applicable	Not Applicable	ºC	23.6	14	---	17.89	24.8	22.45	23.5	17	20.7	17.6	---	---
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	---	---
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	2632	2442	---	2486	2350	1998	1986	1999	2,041	1,962	---	---
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	---	---
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	---	---
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	---	---

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-19S 13-Dec-16	MW-19S 26-Jan-17	DUP-1 26-Jan-17	MW-19S 3-Feb-17	MW-19S 28-Mar-17	MW-19S 7-Apr-17	MW-19S 31-May-17	MW-19S 9-Jun-17	MW-19S 10-Aug-17	MW-19S 18-May-18	DUP 1 18-May-18	MW-19S (Shallow) 2-Aug-18	MW-19S (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	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		MW-19S	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
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)
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	---
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	---
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	---
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	---
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	---
Sulfate	250	1,708	Not Applicable	mg/L	1950 #	1640	1580	1520	1580	1490	1590	1640	1560	1560	1570	1,420	---
Total Dissolved Solids	500	2,505	Not Applicable	mg/L	2490 #	2500	2470	2440	2460	2300	2290	2340	2360	2310	2290	2,180	---
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	<0.008 #	0.00634	0.00643	0.00673	0.00624	0.0061	0.00577	0.00588	0.00554	0.00452	0.00689	0.00689	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	---
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	0.933 +/- 0.391 #	<0.98	---	<0.79	<0.74	<0.73	<0.72	<0.73	<0.87	<0.82	<0.84	<0.82	---
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	---
Total Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	128	130	132	135	133	150	---	---
Carbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	59.8	---	---	---	92.6	98.7	89.2	63.8	69	77.3	---	---
Bicarbonate Alkalinity as CaCO3	None	Not Applicable	Not Applicable	mg/L	---	<5	---	---	---	<5	<5	<5	<5	<5	<5.00	---	---
Hydroxide Alkalinity	None	Not Applicable	Not Applicable	mg/L	---	81.2	---	---	---	35.1	31.4	42.6	71.6	64.4	73.0	---	---
Iron, Total	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.0153(J)	<0.0120	<0.0120	<0.012	<0.012	0.0509 J	---	---
Iron, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	<0.0120	<0.0120	<0.0120	<0.012	<0.012	0.0210 J	---	---
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	---	---
Iron, Ferrous, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<0.02	<0.02	<0.0200 H	---	---
Iron, Ferric	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<0.02	<0.02	<0.0200	---	---
Iron, Ferric, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	<0.02	<0.02	0.0210 J	---	---
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	---	---
Molybdenum, Dissolved	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	0.373	0.383	0.37	0.457	0.398	0.440	---	---
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	---
Potassium	None	Not Applicable	Not Applicable	mg/L	---	38.2	37.7	---	---	35.2	34.1	33.7	33.9	29	34.6	---	---
Sodium	None	Not Applicable	Not Applicable	mg/L	---	801	774	---	---	644	598	610	639	545	462	---	---
Specific Conductance (laboratory)	None	Not Applicable	Not Applicable	umhos/cm	2470 #	3530	---	---	---	---	---	3860	3500	3540	3370	3,570	---
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	1.52	<1	1.8	<1	<1	<1.00	---	---
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	---
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	---
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	3610	3438	---	3524	3552	3309	---	3433	3406	---	3,342	3,309	---
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	---
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	---
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	---

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
Detection Monitoring Parameters				***Units***	BACKGROUND 1	BACKGROUND 2	BACKGROUND 3		BACKGROUND 4	BACKGROUND 5	BACKGROUND 6	BACKGROUND 7	BACKGROUND 8	DETECTION MON. #1	VERIFICATION SAMPLE
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	ºC	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. 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 4-Oct-18	MW-20 10-Jan-19		MW-20 23-Apr-19	MW-20 30-Sep-19	Dup 1	MW-20 17-Jun-20	MW-20 12-Oct-20	MW-20 31-Mar-21	MW-20 15-Oct-21	MW-20 31-Mar-22	MW-20 6-Jun-22
					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)
Detection Monitoring Parameters																
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	---
Calcium	None	670.30	Not Applicable	mg/L	448 #	398	386	327	368	331	320	312	309	325	324	---
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
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
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
Sulfate	250	1,363	Not Applicable	mg/L	1110 #	977	892	794	1060	1080	870	989	782	1030	2070^	732
Total Dissolved Solids	500	2,066	Not Applicable	mg/L	1900 #	1630	1530	1690	1890	1850	1560	1710	1490	1850	1940^	1440
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	<0.004 #	<0.000400	<0.000400	0.00107 J	<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	---
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	---
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	<0.005 #	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	<0.000400	0.000401 J	0.000592 J	0.000674 J	---
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	---
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
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	---
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	---
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	---
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	---
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	---
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	0.888 +/- 0.291 #	<0.72	---	0.91	0.82	<0.74	<0.72	1.33	0.85	0.91	<0.87	---
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
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
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
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																
Temperature	None	Not Applicable	Not Applicable	ºC	24.9	15.2	---	21.57	23.46	---	22.06	21.3	18.61	20.9	16.3	22.9
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
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	2330	1979	---	1937	2240	---	1795	1981	2605	2,140	1,342	1,743
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
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
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

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	DUP 1	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21 (Deep)
				Sample Date:	26-May-16	27-Jul-16	27-Jul-16	28-Sep-16	1-Dec-16	31-Jan-17	5-Apr-17	6-Jun-17	8-Aug-17	17-May-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	VERIFICATION SAMPLE
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	
				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
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)
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	---
Calcium	None	670.30	Not Applicable	mg/L	152 #	187	187	145	142	146	155	139	141	154	128	135	173	---
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
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
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
Sulfate	250	1,591	Not Applicable	mg/L	1610 #	1670	1710	1440	1530	1560	1530	1470	1780	1660	1670	1520	2340^	1,610
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
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	---
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	---
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	---
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	---
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	<0.01 #	<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	---
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	---
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
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	0.164 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	---
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	---
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	---
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	---
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	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	---
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
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
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
Sulfide	None	Not Applicable	Not Applicable	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																		
Temperature	None	Not Applicable	Not Applicable	°C	24	13.8	---	18.12	---	24.38	---	23.17	23.2	15.44	21.3	---	13.8	25
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
Specific Conductance	None	Not Applicable	Not Applicable	µmhos/cm	3627	3585	---	3533	---	3633	---	3352	3516	4806	3,262	---	2,769	3542
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
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
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

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.
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