Texas Commission on Environmental Quality

Waste Permits Division Correspondence Cover Sheet

Date: 2/22/2024
Facility Name: Monticello Steam Electric Station
Permit or Registration No.: CCR114

Nature of Correspondence:
☒ Initial/New
☐ Response/Revision to TCEQ Tracking No.: _____ (from subject line of TCEQ letter regarding initial submission)

Affix this cover sheet to the front of your submission to the Waste Permits Division. Check appropriate box for type of correspondence. Contact WPD at (512) 239-2335 if you have questions regarding this form.

Table 1 - Municipal Solid Waste Correspondence

Applications	Reports and Notifications
☐ New Notice of Intent	☐ Alternative Daily Cover Report
☐ Notice of Intent Revision	☐ Closure Report
☐ New Permit (including Subchapter T)	☐ Compost Report
☐ New Registration (including Subchapter T)	☐ Groundwater Alternate Source Demonstration
☐ Major Amendment	☐ Groundwater Corrective Action
☐ Minor Amendment	☐ Groundwater Monitoring Report
☐ Limited Scope Major Amendment	☐ Groundwater Background Evaluation
☐ Notice Modification	☐ Landfill Gas Corrective Action
☐ Non-Notice Modification	☐ Landfill Gas Monitoring
☐ Transfer/Name Change Modification	☐ Liner Evaluation Report
☐ Temporary Authorization	☐ Soil Boring Plan
☐ Voluntary Revocation	☐ Special Waste Request
☐ Subchapter T Disturbance Non-Enclosed Structure	☐ Other:
☐ Other:	

Table 2 - Industrial & Hazardous Waste Correspondence

Applications	Reports and Responses
☐ New	☐ Annual/Biennial Site Activity Report
☐ Renewal	☐ CPT Plan/Result
☐ Post-Closure Order	☐ Closure Certification/Report
☐ Major Amendment	☐ Construction Certification/Report
☐ Minor Amendment	☐ CPT Plan/Result
☐ CCR Registration	☐ Extension Request
☐ CCR Registration Major Amendment	☒ Groundwater Monitoring Report
☐ CCR Registration Minor Amendment	☐ Interim Status Change
☐ Class 3 Modification	☐ Interim Status Closure Plan
☐ Class 2 Modification	☐ Soil Core Monitoring Report
☐ Class 1 ED Modification	☐ Treatability Study
☐ Class 1 Modification	☐ Trial Burn Plan/Result
☐ Endorsement	☐ Unsaturated Zone Monitoring Report
☐ Temporary Authorization	☐ Waste Minimization Report
☐ Voluntary Revocation	☐ Other:
☐ 335.6 Notification	
☐ Other:	

February 22, 2024

Texas Commission on Environmental Quality
Industrial and Hazardous Waste Permits Section - CCR
MC-130
PO Box 13087
Austin, Texas 78711-3087

RE: Monticello Steam Electric Station – Ash Settling Ponds – CCR Annual Groundwater Report

On behalf of Golden Eagle Development, LLC (Golden Eagle), Gemini Engineering is submitting the 2023 Annual CCR Groundwater Monitoring Report for the ash settling ponds at the former Monticello Steam Electric Station (MOSES).

Based on the attached report, we are recommending closure of the CCR unit prior to approval of the CCR registration. The CCR registration application can be withdrawn, and groundwater Detection Monitoring can be discontinued.

Please contact me at (512) 566-6878 or A.Kaiser@GeminiSTL.com if you have any questions or comments.

Sincerely,

Adam J. Kaiser

Adam J. Kaiser, PE
Senior Project Engineer
Gemini Engineering, LLC

CC: Golden Eagle Development

2275 Cassens Drive | Suite 118
Fenton, MO 63026

2023 Annual CCR Groundwater Monitoring Report
Bottom Ash Ponds

Former Monticello Steam Electric Station
FM 127, Mt. Pleasant, Titus County, Texas

Prepared for:

GOLDEN EAGLE DEVELOPMENT LLC

Prepared by:

Gemini Engineering LLC
2275 Cassens Drive, Suite 118
Fenton, Missouri 63026

February 2024

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ACRONYMS AND ABBREVIATIONS

mg/L	Milligrams per Liter
NA	Not Analyzed

1.0 INTRODUCTION

On behalf of Golden Eagle Development, LLC (Golden Eagle), Gemini Engineering LLC (Gemini) has prepared this report as an update to the annual groundwater monitoring and corrective action reporting requirements of the Coal Combustion Residuals (CCR) Rule for the Northeast Ash Water Retention Pond, West Ash Settling Pond, and Southwest Ash Settling Pond at the Monticello Steam Electric Station (MOSES) in Mount Pleasant, Texas. The CCR units and CCR monitoring well network are shown on Figure 1. Golden Eagle acquired MOSES in December 2019 from Luminant Generation Company, LLC (Luminant).

The CCR Rule (40 Code of Federal Regulations (CFR) 257 Subpart D - *Standards for the Receipt of Coal Combustion Residuals in Landfills and Surface Impoundments*) has been promulgated by the United States Environmental Protection Agency (USEPA) to regulate the management and disposal of CCRs as solid waste under Resource Conservation and Recovery Act (RCRA) Subtitle D. This report is in accordance with 30 Texas Administrative Code (30 TAC) Chapter 352, Coal Combustion Residuals Waste Management which establishes a CCR registration and management program to regulate CCR waste and requires the Owner/Operator to obtain a CCR registration and implement a groundwater detection/monitoring program.

For existing CCR landfills and surface impoundments, the CCR Rule requires that the owner or operator prepare an annual groundwater monitoring and corrective action report to document the status of the groundwater monitoring and corrective action program for the CCR unit for the previous calendar year. Per 40 CFR 257.90(e) and 30 TAC Chapter 352, Subchapter H of the CCR Rule, the report should contain the following information, to the extent available:

(1) A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit;

(2) Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken;

(3) In addition to all the monitoring data obtained under §257.90 through §257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs;

(4) A narrative discussion of any transition between monitoring programs (*e.g.*, the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected at a statistically significant increase over background levels); and

(5) Other information required to be included in the annual report as specified in §257.90 through §257.98.

2.0 MONITORING AND CORRECTIVE ACTION PROGRAM STATUS

The MOSES CCR Ash Settling Ponds are currently in the Detection Monitoring Program. Luminant collected the initial Detection Monitoring Program groundwater samples from the Bottom Ash Ponds CCR monitoring well network in September 2017. Detection Monitoring groundwater samples have been collected from the CCR groundwater monitoring network on a semi-annual basis in 2018 through 2023, as required by the CCR Rule. All CCR groundwater monitoring wells were sampled for Appendix III constituents during the detection monitoring sampling events, except W-29 in November 2023. The demolition of the steam generating units caused unsafe conditions near W-29 in 2021. In 2022, it was discovered that the demolition contractors damaged W-29; however, a groundwater sample was collected from the monitoring well in May 2023. The following table provides a summary of the Detection Monitoring Program:

Detection Monitoring Program
Summary

Sampling Dates	Parameters	SSIs	Assessment Monitoring Program Established
September 2017	Appendix III	No	No
June 2018	Appendix III	No	No
September 2018	Appendix III	No	No
May 2019	Appendix III	No	No
October 2019	Appendix III	No	No
April 2020	Appendix III	Yes*	No
October/November 2020	Appendix III	Yes*	No
March 2021	Appendix III	No	No
August 2021	Appendix III	No	No
May 2022	Appendix III	No	No
December 2022	Appendix III	No	No
May 2023	Appendix III	No	No
November 2023	Appendix III	No	No

* SSIs due to equipment issues

The statistical background values and Appendix III analytical data are presented in Tables 1 and 2, respectively, and the 2023 laboratory analytical reports are provided in Appendix A. Table 1 has been updated with some new background values due to a re-evaluation of the background parameters. There were no Statistically Significant Increases (SSIs) of downgradient point of compliance monitoring wells of Appendix III parameters in 2017 through 2023. An SSI is a detection monitoring constituent concentration in a downgradient compliance monitoring well that is above the respective background value. The analytical data from the 2023 detection monitoring sampling events were evaluated using procedures described in the Statistical Analysis Plan (PBW 2017) to identify SSIs of Appendix III parameters over background concentrations. In 2020, there was an SSI for one parameter; however, the issue was identified as an equipment malfunction. Following the repair of the pH meter, pH levels have been within the Statistical Background Values for downgradient monitoring wells.

3.0 KEY ACTIONS COMPLETED IN 2023

Detection Monitoring Program groundwater monitoring events were completed in May & November 2023. The groundwater analytical results for the background and downgradient point of compliance wells are summarized in Table 2. The CCR units, monitoring wells, the groundwater potentiometric surfaces are illustrated on Figure 1, Figure 2, and Figure 3.

The background data was reevaluated, and an updated report was provided to TCEQ (Gemini, 2023b).

No CCR wells were installed or decommissioned in 2023.

4.0 PROBLEMS ENCOUNTERED AND ACTIONS TO RESOLVE THE PROBLEMS

The demolition of the steam generating units caused unsafe conditions near W-29 in 2021, then the monitoring well was damaged. The monitoring well was found, and the damage was above ground to the upper riser, so the monitoring well was salvageable. The monitoring well has not been resurveyed, but it was purged, and a sample was collected in December 2022. However, the groundwater sample technician reported issues with the monitoring well in November 2023. Monitoring well W-29 will be reevaluated in the spring of 2024. Due to the dry conditions in the fall, the potentiometric groundwater map had data gaps with an inconclusive groundwater direction. The groundwater was remeasured in February after several significant rain events. Additionally, TPDES monitoring wells were included to provide additional data. The potentiometric data is summarized on Figure 3.

Several November 2023 analytic results exceeded hold times because of delays from the shipping company, therefore; some of the concentrations should be considered estimates. The analytical results compared to past results were for the parameters past the hold times appear to be within the typical concentrations.

5.0 KEY ACTIVITIES PLANNED FOR 2023

The following key activities are planned for 2024:

- Investigate the damage issues with W-29.
- Discontinue the Detection Monitoring Program due site closure per 30 TAC 352, Subchapter J.

6.0 REFERENCES

Gemini Engineering, LLC, 2023b. Updated Coal Combustion Residual Background Evaluation Report, Former Monticello Steam Electric Station, Ash Ponds, Mount Pleasant, Texas. December.

Gemini Engineering, LLC, 2023a. Coal Combustion Residual Rule Groundwater Sampling Analysis Plan, Former Monticello Steam Electric Station, Ash Ponds, Mount Pleasant, Texas. April.

Pastor, Behling & Wheeler, LLC, 2017. Coal Combustion Residual Rule Statistical Analysis Plan, Monticello Steam Electric Station, Ash Ponds, Mount Pleasant, Texas.

Signature Page

Adam J. Kaiser, P.E.
Senior Project Engineer
Gemini Engineering, LLC
Texas PE No 126387, Expires 3/31/2024
Texas Engineering Firm F-23183

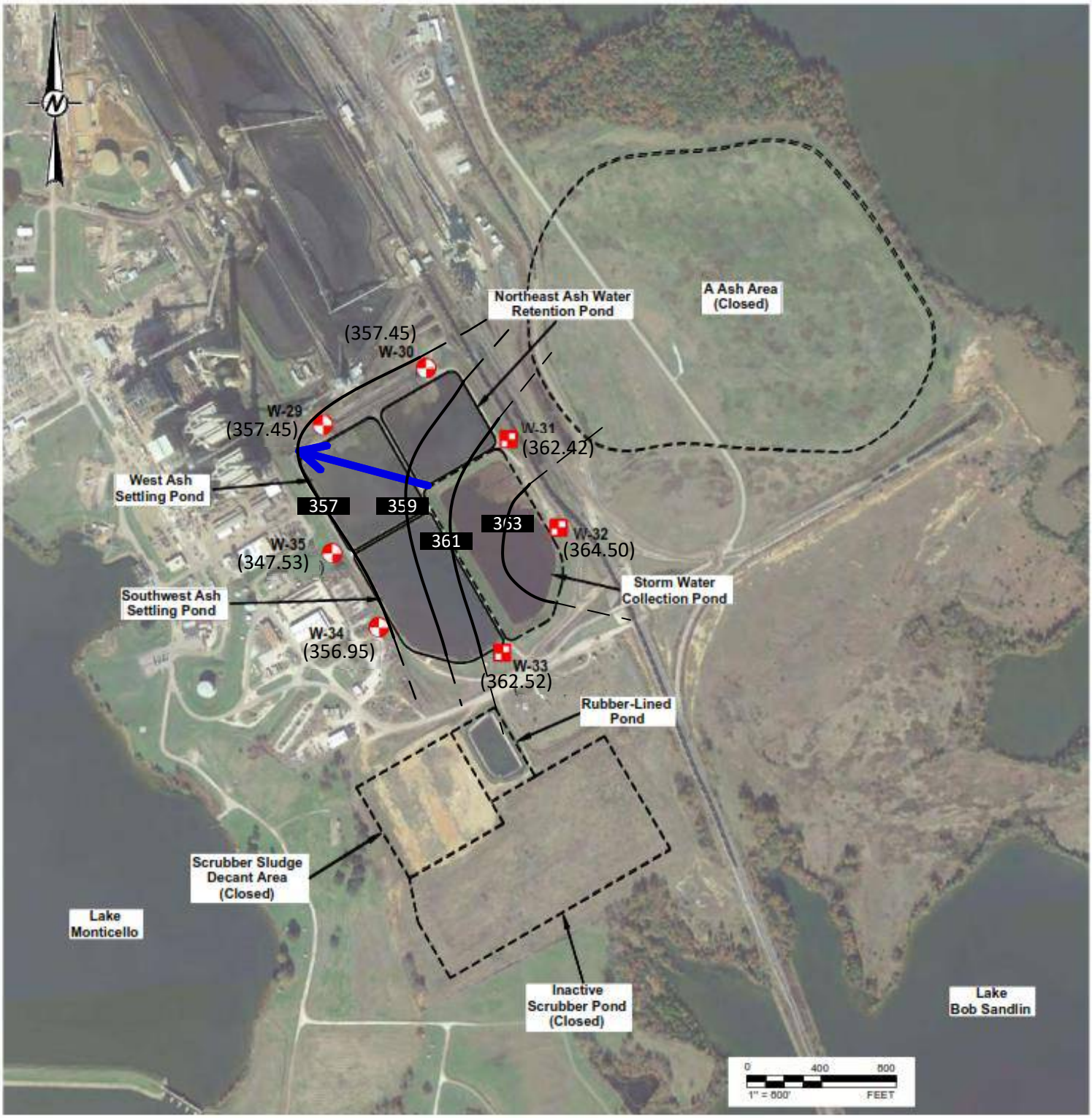
2/22/2024

TABLES

Table 1
Statistical Background Values
MOSES Bottom Ash Ponds

Parameter	Statistical Background Value
Boron (B) (mg/L)	8.52
Calcium (Ca) (mg/L)	311
Chloride (Cl) (mg/L)	157
Fluoride (F) (mg/L)	2.96
field pH (s.u.)	5.27 - 7.36
Sulfate ($S0_4$) (mg/L)	1,193
Total Dissolved Solids (TDS) (mg/L)	2,159

FIGURES



LEGEND

- DOWNGRADIENT CCR MONITORING WELL
- UPGRADIENT CCR MONITORING WELL
- Estimated GW flow direction
- (357.26) Groundwater Potentiometric Surface (ft. AMSL)
- 358 Groundwater Potentiometric Surface Contour (C.I. = 2 ft.)

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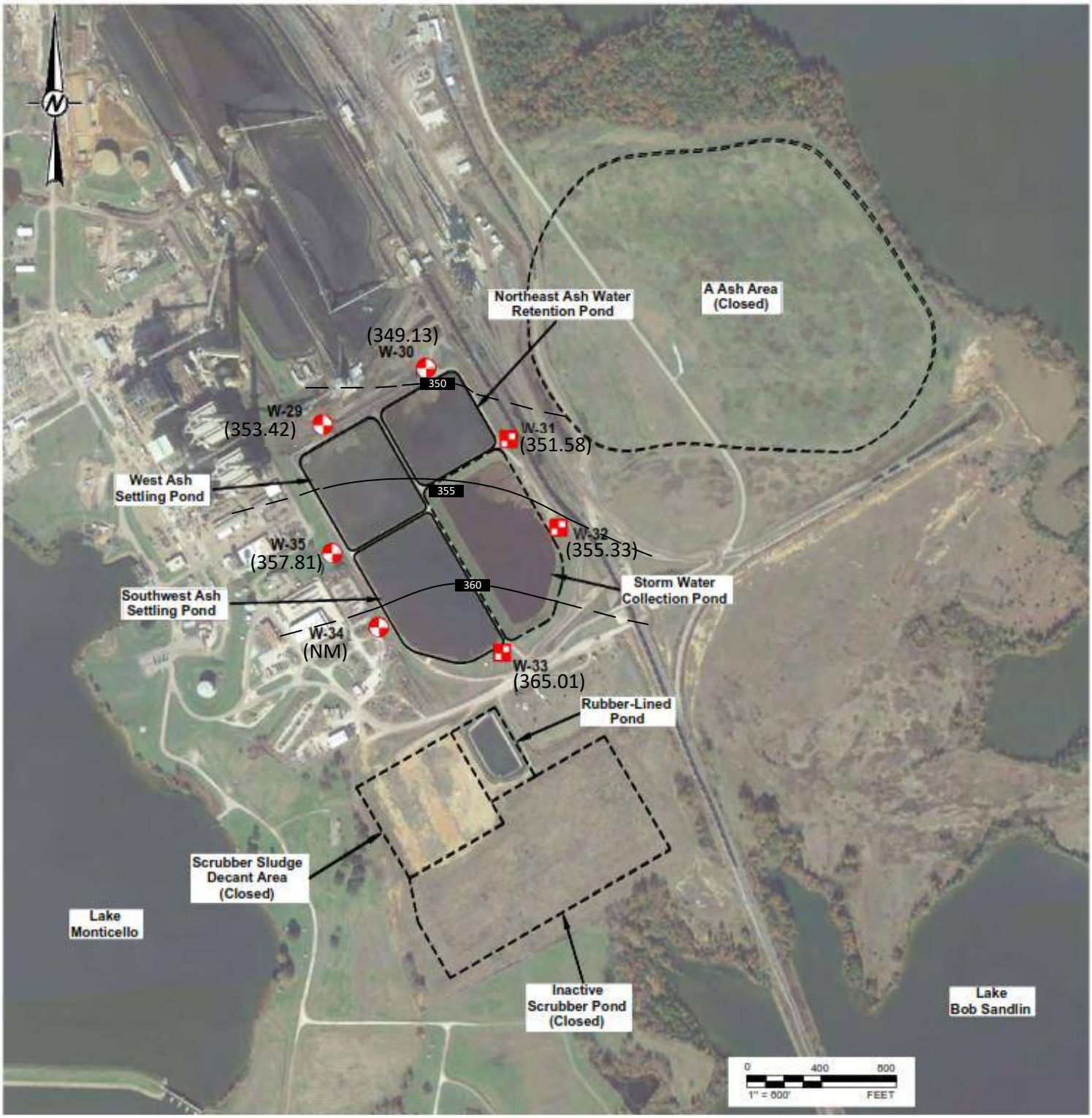
GEMINI ENGINEERING

Figure 1
Ash Water Ponds Potentiometric Surface Map
May 2023
Former MOSES Site

Chkd:	AK
Drawn:	KO
Page:	1 of 1
Date:	1/18/24
Scale:	As Shown



LEGEND

- DOWNGRADIENT CCR MONITORING WELL
- UPGRADIENT CCR MONITORING WELL
- (357.26) Groundwater Potentiometric Surface (ft. AMSL)
- 358 Groundwater Potentiometric Surface Contour (C.I. = 2 ft.)

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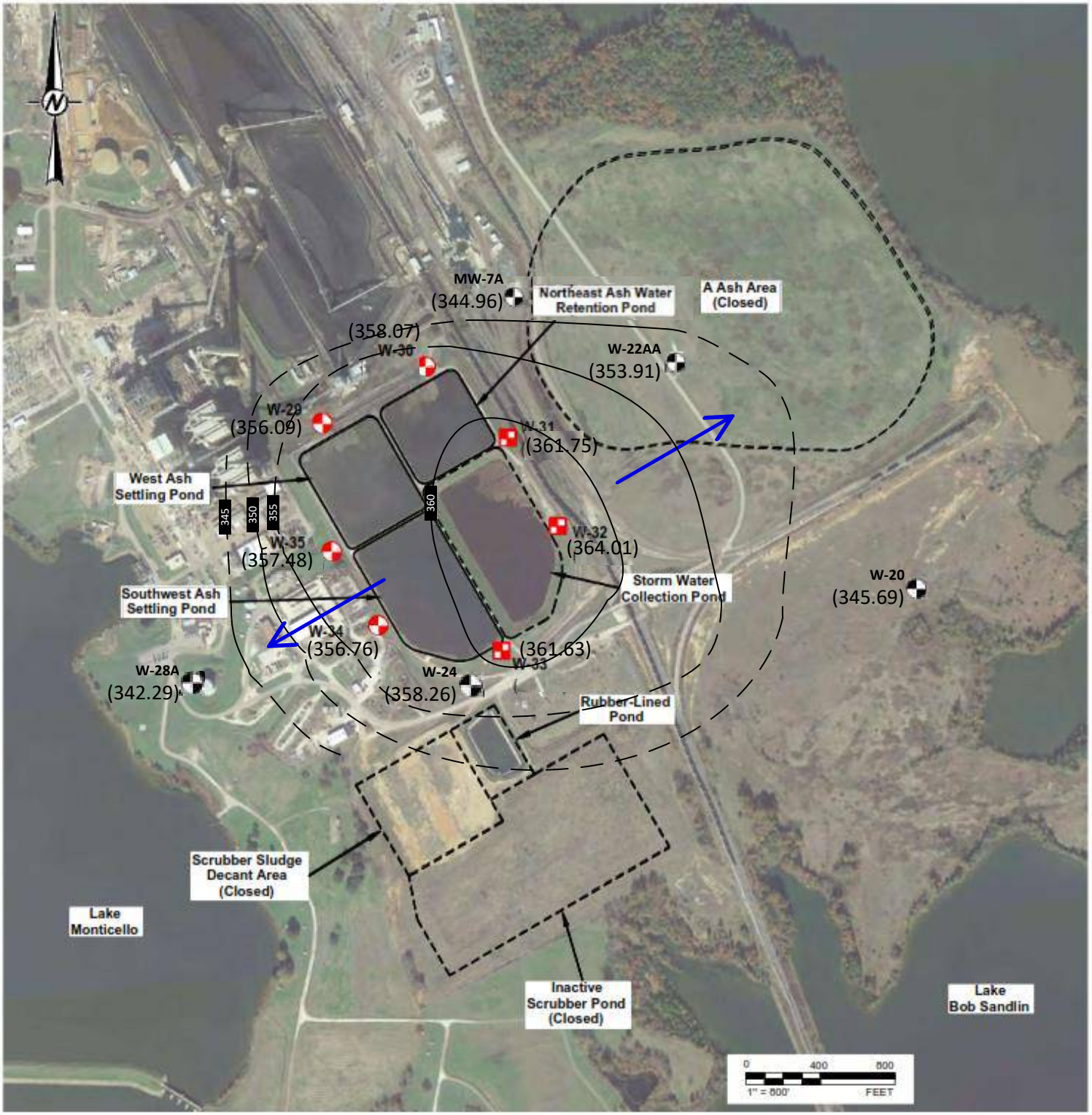
GEMINI ENGINEERING

Figure 2
Ash Water Ponds Potentiometric Surface Map
November 2023
Former MOSES Site

Chkd:	AK
Drawn:	KO
Page:	1 of 1
Date:	1/18/24
Scale:	As Shown



LEGEND

- DOWNGRADIENT CCR MONITORING WELL
- UPGRADIENT CCR MONITORING WELL
- APPROXIMATE GROUNDWATER FLOW DIRECTION
- TPDES MONITORING WELLS
- (357.26) GROUNDWATER POTENTIOMETRIC SURFACE (FEET AMSL)
- 355 GROUNDWATER PTOENTIOMETRTIC SURFACE CONTOUR (CONTOUR INTERVAL = 5 FEET)

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GEMINI ENGINEERING

Figure 3
Ash Water Ponds Potentiometric Surface Map
February 2024
Former MOSES Site

Chkd:	AK
Drawn:	KO
Page:	1 of 1
Date:	2/8/24
Scale:	As Shown

TABLES

Table 1
Statistical Background Values
MOSES Bottom Ash Ponds

Parameter	Statistical Background Value
Boron (B) (mg/L)	8.52
Calcium (Ca) (mg/L)	311
Chloride (Cl) (mg/L)	157
Fluoride (F) (mg/L)	2.96
field pH (s.u.)	5.27 - 7.36
Sulfate ($S0_4$) (mg/L)	1,193
Total Dissolved Solids (TDS) (mg/L)	2,159

Table 2
Analytical Results
MOSES CCR BAP Monitoring 2023

Sample Location	Date Sampled	B (mg/L)	Ca (mg/L)	Cl (mg/L)	F (mg/L)	pH (s.u.)	SO_4 (mg/L)	TDS (mg/L)
Upgradient Wells								
W-31	10/15/15	3.74	130	66.2	0.14	5.67	808	1,510
	12/07/15	3.81	136	51.2	0.28 J	5.86	714	1,250
	02/22/16	3.65	130	49.2	0.12	5.79	694	1,500
	04/04/16	3.80	119	48.9	0.22 J	6.06	737	1,220
	06/06/16	3.84	104	47.8	<0.10	6.17	701	1,150
	08/08/16	2.67	92.4	58.4	<0.10	6.11	396	862
	10/12/16	1.74	71.7	55.1	0.11	6.13	292	654
	12/29/16	3.15	89.7	49.3	<0.10	4.99	729	1,150
	09/20/17	3.88	96.3	49.8	<0.10	6.72	316	696
	06/08/18	3.28	86.3	48.6	0.30 J	6.72	577	925
	09/10/18	3.19	86.5	46.3	0.22 J	4.84	595	973
	05/09/19	0.88	36.5	54.0	0.16 J	6.87	115	319
	10/30/19	1.29	35.6	49.1	0.10 J	6.84	131	343
	04/26/20	0.79	34.4	51.1	0.09 J	7.41	86	279
	10/31/20	1.27	36.9	48.3	0.08 J	6.60	156	384
	03/24/21	1.38	41.4	47.7	0.12 J	5.59	173	373
	08/15/21	1.84	51.6	49.9	0.07 J	5.52	242	400
	05/30/22	2.06	57.5	57.0	0.167	5.44	409	477
	12/03/22	1.15	36.5	49.3	0.0737	5.19	161	362
	05/28/23	**1.20**	**37.2**	**45.3**	**< 0.10**	**5.75**	**155**	**348**
	11/26/23	**1.61**	**43.3**	**55.6 Q**	**0.186 Q**	**5.37**	**188 Q**	**557**
W-32	10/15/15	5.85	282	160	0.44	6.72	1,040	1,970
	12/07/15	6.76	260	122	1.19	6.74	872	1,610
	02/22/16	6.95	247	124	0.79	6.74	850	1,870
	04/04/16	6.50	239	139	1.01	6.73	844	1,380
	06/06/16	6.18	192	105	0.76	6.71	694	1,440
	08/08/16	4.43	261	110	0.54	6.71	945	1,650
	10/12/16	6.32	284	134	0.34	6.19	986	1,820
	12/29/16	6.38	310	147	0.57	6.46	1,210	1,950
	09/20/17	5.81	270	118	0.38 J	6.79	901	1,920
	06/08/18	5.79	380	149	1.71	6.74	1,340	2,390
	09/10/18	5.38	370	140	1.19	6.56	1,270	2,200
	05/09/19	3.83	91	21.9	1.83	6.73	236	479
	10/30/19	4.24	130	35.0	1.70	6.91	363	746
	04/26/20	1.96	48.6	9.7	2.29	8.72	96	290
	10/31/20	2.85	64.8	12.5	1.34	8.16	141	344
	03/24/21	1.62	40.0	5.32	2.18	7.09	42.9	204
	08/15/21	2.07	52.3	9.64	1.75	7.12	76.3	270
	05/30/22	1.97	266	8.68	1.40	7.14	51.2	266
	12/03/22	1.43	78.9	7.93	1.72	7.25	134	347
	05/28/23	**1.37**	**85.8**	**5.90**	**1.70**	**7.34**	**213**	**420**
	05/28/23 Dup	**1.46**	**86.0**	**5.70**	**1.80**	**7.33**	**212**	**412**
	11/26/23	**1.41**	**75.7**	**5.49 Q**	**1.65 Q**	**7.13**	**195 Q**	**395 Q**
	11/26/2023 Dup	**1.46**	**75.3**	**5.72 Q**	**1.64 Q**	**7.14**	**179 Q**	**387**
W-33	10/15/15	6.36	311	162	2.01	7.14	1,080	1,630
	12/07/15	6.68	252	120	2.80	7.12	853	1,680
	02/22/16	7.52	243	124	2.40	7.11	790	1,960
	04/04/16	7.24	278	171	2.50	7.14	935	1,540
	06/06/16	7.08	229	120	2.12	7.10	700	1,490
	08/08/16	6.37	215	108	1.92	6.97	655	1,300
	10/12/16	5.15	237	111	2.43	6.84	797	1,540
	12/29/16	5.23	275	125	2.25	6.82	965	1,730
	09/20/17	5.89	271	112	2.04	6.73	863	1,970
	06/08/18	6.01	364	142	3.59	6.55	1,200	2,230
	09/10/18	5.45	351	132	2.99	6.78	1,160	2,120
	05/09/19	3.41	93.7	36.7	1.41	6.85	443	775
	10/30/19	5.18	169	39.7	1.21	6.68	477	911
	04/26/20	3.43	96.4	17.7	3.13	8.35	171	580
	11/01/20	2.33	80.9	10.8	3.73	8.39	104	387
	03/24/21	2.32	77.0	8.55	3.48	7.10	55	342
	08/15/21	1.81	61.7	8.05	4.22	7.13	51.4	295
	05/30/22	1.10	77.5	10.4	2.93	7.05	82.9	368
	12/03/22	1.17	80.9	9.08	3.46	7.24	97.2	337
	05/28/23	**1.60**	**101**	**6.7**	**3.00**	**7.29**	**203**	**471**
	11/26/23	**1.23**	**93.7**	**7.33 Q**	**3.07 Q**	**7.09**	**189 Q**	**456 Q**
Downgradient Wells								
W-29	10/15/15	4.58	111	101	0.32 J	6.21	861	1,680
	12/07/15	3.47	86.6	81.1	0.36 J	6.22	501	1,020
	02/22/16	4.98	114	82.3	0.24	6.27	909	1,840
	04/04/16	3.32	169	75.9	0.23 J	6.17	465	850
	06/06/16	5.77	162	85.5	<0.10	6.29	696	1,230
	08/08/16	5.70	153	85.6	<0.10	6.32	1,100	1,850
	10/12/16	6.42	174	82.4	0.40	6.19	1,140	1,720
	12/29/16	6.52	185	82.5	0.23 J	6.14	1,150	1,860
	09/20/17	4.84	128	80.6	<0.10	6.85	882	1,540
	06/08/18	3.70	127	87.9	0.37 J	6.62	694	1,310
	09/10/18	4.14	140	81.5	0.41	6.30	858	1,630
	05/10/19	1.94	95.4	92.1	0.21 J	6.85	361	727
	10/30/19	1.69	100	86.1	0.24 J	6.52	252	621
	04/26/20	1.36	70	88.2	0.14 J	6.70	270	563
	11/01/20	1.24	84	88.1	0.20	6.98	214	517
	03/29/21	1.25	89.9	83.3	0.15 J	6.95	224	495
	08/15/21	NA	NA	NA	NA	NA	NA	NA
	05/30/21	NA	NA	NA	NA	NA	NA	NA
	12/17/22	4.43	122	82.0	0.339	6.60	790	1,370
	05/28/23	**3.35**	**97.7**	**81.7**	**0.33**	**6.87**	**707**	**1,250**
	11/26/23	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Table 2
Analytical Results
MOSES CCR BAP Monitoring 2023

Sample Location	Date Sampled	B (mg/L)	Ca (mg/L)	Cl (mg/L)	F (mg/L)	pH (s.u.)	SO_4 (mg/L)	TDS (mg/L)
W-30	10/15/15	6.06	133	106	0.58	5.78	919	1,490
	12/07/15	7.04	135	98.3	0.81	5.95	875	1,530
	02/22/16	6.83	138	96.3	0.72	5.94	873	1,790
	04/04/16	6.28	141	95.2	0.96	5.93	925	1,460
	06/06/16	6.89	132	94.9	0.36 J	5.96	884	1,460
	08/08/16	5.94	136	85.7	0.45	6.23	848	1,550
	10/12/16	6.51	130	79.9	0.79	6.02	817	1,300
	12/29/16	8.54	192	85.3	0.50	5.34	863	1,510
	09/20/17	5.76	127	76.5	0.394 J	6.85	734	1,570
	06/08/18	5.06	127	87.8	0.92	6.78	724	1,280
	09/10/18	4.53	115	81.1	0.91	5.25	713	1,230
	05/09/19	5.13	115	97.5	0.85	6.72	734	1,300
	10/30/19	5.06	161	59.4	0.57	6.43	755	1,330
	04/26/20	4.18	135	51.4	0.69	7.49	763	1,150
	10/31/20	4.26	141	44.0	0.68	7.11	735	1,140
	03/24/21	4.33	133	40.5	0.58	5.67	686	1,070
	08/15/21	4.01	100	33.4	0.82	5.83	606	979
	05/30/22	4.04	112	43.8	0.70	5.61	682	1,090
	12/03/22	4.6	119	45.4	0.813	5.58	636	1,030
	05/28/23	**6.18**	**97.9**	**35.5**	**< 1.0**	**6.03**	**633**	**911**
	11/26/23	**4.78**	**108**	**50.4 Q**	**0.59 Q**	**5.47**	**589 Q**	**990**
W-34	10/15/15	2.38	124	87.1	0.38 J	6.55	453	878
	12/07/15	4.10	153	82.2	0.49	6.58	671	1,500
	02/22/16	3.44	117	85.9	0.42	6.59	641	1,570
	04/04/16	2.09	86.9	80.7	0.287 J	6.63	378	817
	06/06/16	2.12	66.2	73.0	<0.1	6.64	343	795
	08/08/16	3.56	121	98.4	<0.1	6.52	634	1,030
	10/12/16	3.13	110	84.9	0.29	6.57	556	935
	12/29/16	6.10	158	122	0.336 J	6.03	937	1,620
	09/20/17	5.36	181	117	0.244 J	6.75	873	1,720
	06/08/18	4.95	180	116	0.90	6.85	835	1,540
	09/10/18	4.53	161	114	0.66	6.64	819	1,530
	05/09/19	1.51	64.7	45.1	0.348 J	6.78	164	568
	10/30/19	4.11	154	103	0.322 J	6.62	677	1,260
	04/26/20	4.26	182	108	0.44	7.67	817	1,370
	11/01/20	5.47	217	114	0.35	7.50	930	1,560
	03/24/21	5.80	229	132	0.48	6.20	1,130	1,640
	08/15/21	4.83	210	125	0.35	6.16	933	1,620
	05/30/22	5.61	220	108	0.29	6.30	918	1,800
	12/17/22	5.67	216	122	0.19	6.38	973	1,600
	05/28/23	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
	11/26/23	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
W-35	10/15/15	5.58	175	98.2	<0.1	6.05	893	1,720
	12/07/15	6.13	177	90.2	0.128 J	6.16	861	1,580
	02/22/16	6.29	160	85.4	<0.1	6.12	824	1,650
	04/04/16	6.16	169	91.3	<0.1	6.09	835	1,310
	06/06/16	6.17	158	98.5	<0.1	6.36	858	1,460
	08/08/16	6.07	159	97.8	<0.1	6.41	810	1,470
	10/12/16	6.25	150	97.8	0.1	6.12	793	1,320
	12/29/16	6.89	151	110	<0.1	5.06	839	1,370
	09/20/17	6.27	186	120	<0.100	6.74	854	1,650
	06/08/18	5.81	200	128	0.163 J	6.55	925	1,660
	09/10/18	5.70	204	132	<0.1	5.42	940	1,580
	05/10/19	5.46	182	75.5	<0.1	6.94	501	865
	10/30/19	3.63	111	95.5	<0.100	6.92	682	1,280
	10/30/2019 DUP	4.57	142	99.1	<0.100	6.92	699	1,280
	04/26/20	5.30	209	129	<0.150	6.50	984	1,600
	11/01/20	5.95	207	118	<0.064	6.73	945	1,550
	03/25/21	6.16	213	129	0.0725 J	5.29	1,010	1,510
	08/15/21	6.04	216	137	<0.0640	5.70	992	1,650
	05/30/22	5.26	232	115	<0.15	5.42	946	1,670
	12/17/22	5.55	228	104	<0.15	5.60	942	1,520
	05/28/23	**5.21**	**41.4**	**96.7**	**< 1.0**	**5.75**	**936**	**1,530**
	11/26/23	**6.36**	**188**	**82.6**	**0.07 BJ**	**5.50**	**799**	**1,260**

Notes:

Abbreviations: mg/L - milligrams per liter; TDS - total dissolved solids; s.u. - standard units.

Samples from the Current Period are bold.

J - concentration is below method quantitation limit; result is an estimate.

B - The same analyte is found in the associated blank.

Q - Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.

T8 - Sample(s) received past/too close to holding time expiration.

NA - not analyzed

APPENDIX A - 2023 LABORATORY ANALYTICAL REPORTS

ANALYTICAL REPORT

January 03, 2024

GEMINI Engineering

Sample Delivery Group:	L1684185
Samples Received:	12/04/2023
Project Number:	
Description:	Monticello GW - Mt. Pleasant, TX
Site:	GOLDEN EAGLE
Report To:	Adam Kaiser 2275 Cassens Drive Suite 118 Fenton, MO 63026

Entire Report Reviewed By:

John Hawkins
Project Manager

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SAMPLE SUMMARY

W-31 L1684185-01 GW

Collected by: Jeff N. | Collected date/time: 11/26/23 12:00 | Received date/time: 12/04/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2183814	1	12/06/23 14:03	12/06/23 15:21	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2188440	1	12/30/23 01:56	12/30/23 01:56	ASM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2199084	5	01/01/24 16:08	01/01/24 16:08	ASM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2183585	1	12/07/23 08:55	12/09/23 09:41	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2183585	10	12/07/23 08:55	12/09/23 10:56	JPD	Mt. Juliet, TN

W-32 L1684185-02 GW

Collected by: Jeff N. | Collected date/time: 11/26/23 11:00 | Received date/time: 12/04/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2183754	1	12/06/23 20:02	12/06/23 23:22	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2188440	1	12/30/23 02:48	12/30/23 02:48	ASM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2183585	1	12/07/23 08:55	12/09/23 09:44	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2183585	10	12/07/23 08:55	12/09/23 10:59	JPD	Mt. Juliet, TN

W-33 L1684185-03 GW

Collected by: Jeff N. | Collected date/time: 11/26/23 10:00 | Received date/time: 12/04/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2183759	1	12/06/23 20:38	12/07/23 07:49	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2188440	1	12/30/23 03:01	12/30/23 03:01	ASM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2183585	1	12/07/23 08:55	12/09/23 09:48	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2183585	10	12/07/23 08:55	12/09/23 11:02	JPD	Mt. Juliet, TN

CCR DUP L1684185-04 GW

Collected by: Jeff N. | Collected date/time: 11/26/23 11:00 | Received date/time: 12/04/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2183759	1	12/06/23 20:38	12/07/23 07:49	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2188440	1	12/30/23 03:13	12/30/23 03:13	ASM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2199084	5	01/01/24 16:21	01/01/24 16:21	ASM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2183585	1	12/07/23 08:55	12/09/23 09:51	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2183585	10	12/07/23 08:55	12/09/23 11:06	JPD	Mt. Juliet, TN

W-30 L1684185-05 GW

Collected by: Jeff N. | Collected date/time: 11/26/23 13:00 | Received date/time: 12/04/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2183759	1	12/06/23 20:38	12/07/23 07:49	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2188440	1	12/30/23 03:52	12/30/23 03:52	ASM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2188440	10	12/30/23 04:05	12/30/23 04:05	ASM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2183585	1	12/07/23 08:55	12/09/23 09:54	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2183585	50	12/07/23 08:55	12/09/23 11:09	JPD	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

John Hawkins
Project Manager

Laboratory Data Package Cover Page

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

R1 - Field chain-of-custody documentation;

R2 - Sample identification cross-reference;

R3 - Test reports (analytical data sheets) for each environmental sample that includes:

a. Items consistent with NELAC Chapter 5,

b. dilution factors,

c. preparation methods,

d. cleanup methods, and

e. if required for the project, tentatively identified compounds (TICs).

R4 - Surrogate recovery data including:

a. Calculated recovery (%R), and

b. The laboratory's surrogate QC limits.

R5 - Test reports/summary forms for blank samples;

R6 - Test reports/summary forms for laboratory control samples (LCSs) including:

a. LCS spiking amounts,

b. Calculated %R for each analyte, and

c. The laboratory's LCS QC limits.

R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

a. Samples associated with the MS/MSD clearly identified,

b. MS/MSD spiking amounts,

c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,

d. Calculated %Rs and relative percent differences (RPDs), and

e. The laboratory's MS/MSD QC limits

R8 - Laboratory analytical duplicate (if applicable) recovery and precision:

a. The amount of analyte measured in the duplicate,

b. The calculated RPD, and

c. The laboratory's QC limits for analytical duplicates.

R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

John Hawkins
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: Pace Analytical National	LRC Date: 01/03/2024 13:05
Project Name: Monticello GW - Mt. Pleasant, TX	Laboratory Job Number: L1684185-01, 02, 03, 04 and 05
Reviewer Name: John Hawkins	Prep Batch Number(s): WG2183585, WG2183814, WG2183759, WG2183754, WG2188440 and WG2199084

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?		X			1
		Other than those results < MQL, were all other raw values bracketed by calibration standards?		X			2
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			3
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?		X			4
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National	LRC Date: 01/03/2024 13:05
Project Name: Monticello GW - Mt. Pleasant, TX	Laboratory Job Number: L1684185-01, 02, 03, 04 and 05
Reviewer Name: John Hawkins	Prep Batch Number(s): WG2183585, WG2183814, WG2183759, WG2183754, WG2188440 and WG2199084

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?			X		
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?			X		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National	LRC Date: 01/03/2024 13:05
Project Name: Monticello GW - Mt. Pleasant, TX	Laboratory Job Number: L1684185-01, 02, 03, 04 and 05
Reviewer Name: John Hawkins	Prep Batch Number(s): WG2183585, WG2183814, WG2183759, WG2183754, WG2188440 and WG2199084

ER #[1]	Description
1	9056A WG2188440 L1684185-02, 03, 04, 05 and 01: Prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values. 9056A WG2199084 L1684185-01 and 04: Prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values. 2540 C-2011 WG2183754 L1684185-02: Prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values. 2540 C-2011 WG2183814 L1684185-01: Prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.
2	6020 WG2183585 R4010176-4 and 5: The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
3	9056A WG2188440 Chloride: Percent Recovery is outside of established control limits. 6020 WG2183585 Boron: Percent Recovery is outside of established control limits. 9056A WG2199084 Sulfate: Percent Recovery is outside of established control limits.
4	9056A WG2188440 Fluoride: Relative Percent Difference is outside of established control limits. 2540 C-2011 WG2183814 Dissolved Solids: Relative Percent Difference is outside of established control limits.

1. Items identified by the letter “R” must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter “S” should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if “NR” or “No” is checked).

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	557	T8	10.0	10.0	1	12/06/2023 15:21	WG2183814

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Chloride	55.6	Q	0.379	1.00	1.00	1	12/30/2023 01:56	WG2188440
Fluoride	0.186	P1 Q	0.0640	0.150	0.150	1	12/30/2023 01:56	WG2188440
Sulfate	188	Q	2.97	5.00	25.0	5	01/01/2024 16:08	WG2199084

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Boron	1.61		0.0963	0.0300	0.300	10	12/09/2023 10:56	WG2183585
Calcium	43.3		0.0936	1.00	1.00	1	12/09/2023 09:41	WG2183585

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	395	T8	10.0	10.0	1	12/06/2023 23:22	WG2183754

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Chloride	5.49	Q	0.379	1.00	1.00	1	12/30/2023 02:48	WG2188440
Fluoride	1.65	Q	0.0640	0.150	0.150	1	12/30/2023 02:48	WG2188440
Sulfate	195	Q	0.594	5.00	5.00	1	12/30/2023 02:48	WG2188440

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Boron	1.41		0.0963	0.0300	0.300	10	12/09/2023 10:59	WG2183585
Calcium	75.7		0.0936	1.00	1.00	1	12/09/2023 09:44	WG2183585

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	456		10.0	10.0	1	12/07/2023 07:49	WG2183759

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Chloride	7.33	Q	0.379	1.00	1.00	1	12/30/2023 03:01	WG2188440
Fluoride	3.07	Q	0.0640	0.150	0.150	1	12/30/2023 03:01	WG2188440
Sulfate	189	Q	0.594	5.00	5.00	1	12/30/2023 03:01	WG2188440

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Boron	1.23		0.0963	0.0300	0.300	10	12/09/2023 11:02	WG2183585
Calcium	93.7		0.0936	1.00	1.00	1	12/09/2023 09:48	WG2183585

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	387		10.0	10.0	1	12/07/2023 07:49	WG2183759

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Chloride	5.72	Q	0.379	1.00	1.00	1	12/30/2023 03:13	WG2188440
Fluoride	1.64	Q	0.0640	0.150	0.150	1	12/30/2023 03:13	WG2188440
Sulfate	179	Q	2.97	5.00	25.0	5	01/01/2024 16:21	WG2199084

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Boron	1.46		0.0963	0.0300	0.300	10	12/09/2023 11:06	WG2183585
Calcium	75.3		0.0936	1.00	1.00	1	12/09/2023 09:51	WG2183585

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	990		20.0	20.0	1	12/07/2023 07:49	WG2183759

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Chloride	50.4	Q	0.379	1.00	1.00	1	12/30/2023 03:52	WG2188440
Fluoride	0.589	Q	0.0640	0.150	0.150	1	12/30/2023 03:52	WG2188440
Sulfate	589	Q	5.94	5.00	50.0	10	12/30/2023 04:05	WG2188440

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Boron	4.78		0.482	0.0300	1.50	50	12/09/2023 11:09	WG2183585
Calcium	108		0.0936	1.00	1.00	1	12/09/2023 09:54	WG2183585

Method Blank (MB)

(MB) R4010284-1 12/06/23 23:22

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1684185-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1684185-02 12/06/23 23:22 • (DUP) R4010284-3 12/06/23 23:22

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	395	397	1	0.505		5

L1684262-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1684262-02 12/06/23 23:22 • (DUP) R4010284-4 12/06/23 23:22

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	363	361	1	0.552		5

Laboratory Control Sample (LCS)

(LCS) R4010284-2 12/06/23 23:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8850	101	85.0-115	

Method Blank (MB)

(MB) R4010283-1 12/07/23 07:49

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1684149-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1684149-03 12/07/23 07:49 • (DUP) R4010283-3 12/07/23 07:49

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	122	128	1	4.80		5

L1684185-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1684185-03 12/07/23 07:49 • (DUP) R4010283-4 12/07/23 07:49

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	456	464	1	1.74		5

Laboratory Control Sample (LCS)

(LCS) R4010283-2 12/07/23 07:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8710	99.0	85.0-115	

Method Blank (MB)

(MB) R4010280-1 12/06/23 15:21

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U	J	10.0	10.0

L1683438-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1683438-04 12/06/23 15:21 • (DUP) R4010280-3 12/06/23 15:21

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	2010	2170	1	7.67	J3	5

L1684185-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1684185-01 12/06/23 15:21 • (DUP) R4010280-4 12/06/23 15:21

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	557	552	1	0.902		5

Laboratory Control Sample (LCS)

(LCS) R4010280-2 12/06/23 15:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8670	98.5	85.0-115	

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Method Blank (MB)

(MB) R4018525-1 12/30/23 01:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1684185-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1684185-01 12/30/23 01:56 • (DUP) R4018525-6 12/30/23 02:09

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	55.6	54.5	1	1.87		15
Fluoride	0.186	U	1	200	P1	15

L1691117-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1691117-03 12/30/23 05:35 • (DUP) R4018525-9 12/30/23 05:48

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	170	166	1	2.39		15
Fluoride	0.101	0.121	1	17.6	J P1	15
Sulfate	0.644	0.597	1	7.54	J	15

Laboratory Control Sample (LCS)

(LCS) R4018525-2 12/30/23 01:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	42.5	106	80.0-120	
Fluoride	8.00	8.55	107	80.0-120	
Sulfate	40.0	40.7	102	80.0-120	

L1684185-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1684185-01 12/30/23 01:56 • (MS) R4018525-7 12/30/23 02:22 • (MSD) R4018525-8 12/30/23 02:35

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40.0	55.6	89.3	87.8	84.3	80.6	1	80.0-120			1.69	15
Fluoride	8.00	0.186	8.87	8.32	109	102	1	80.0-120			6.33	15

L1691117-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1691117-03 12/30/23 05:35 • (MS) R4018525-10 12/30/23 06:26

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	170	177	18.2	1	80.0-120	V
Fluoride	8.00	0.101	8.40	104	1	80.0-120	
Sulfate	40.0	0.644	42.6	105	1	80.0-120	

Sample Narrative:

MS: Cl spike failed due to high parent hit

Method Blank (MB)

(MB) R4018723-1 01/01/24 14:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Sulfate	U		0.594	5.00

L1690532-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1690532-04 01/01/24 18:28 • (DUP) R4018723-3 01/01/24 18:41

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	111	111	1	0.312		15

Laboratory Control Sample (LCS)

(LCS) R4018723-2 01/01/24 14:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sulfate	40.0	37.9	94.7	80.0-120	

L1690532-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1690532-04 01/01/24 18:28 • (MS) R4018723-4 01/01/24 18:54 • (MSD) R4018723-5 01/01/24 19:07

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sulfate	40.0	111	125	124	35.2	32.9	1	80.0-120	J6	J6	0.725	15

Sample Narrative:

MS: SO4 spike failed due to sample matrix

MSD: SO4 spike failed due to sample matrix

Method Blank (MB)

(MB) R4010176-1 12/09/23 08:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.00963	0.0300
Calcium	U		0.0936	1.00

Laboratory Control Sample (LCS)

(LCS) R4010176-2 12/09/23 09:00

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	0.0500	0.0506	101	80.0-120	
Calcium	5.00	4.87	97.3	80.0-120	

L1682607-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1682607-01 12/09/23 09:04 • (MS) R4010176-4 12/09/23 09:10 • (MSD) R4010176-5 12/09/23 09:13

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	0.0500	0.492	0.526	0.543	68.2	102	1	75.0-125	E V	E	3.17	20
Calcium	5.00	5.29	10.3	10.1	100	96.7	1	75.0-125			1.71	20

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
Q	Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.
T8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
GEMINI Engineering
2275 Cassens Drive
Suite 118
Fenton, MO 63026

Billing Information:
Adam Kaiser
2275 Cassens Drive
Suite 118
Fenton, MO 63026

Pres Chk: LL

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

Report to: Adam Kaiser

Email To: a.kaiser@geministl.com

Project Description: Monticello GW - Mt. Pleasant, TX

City/State Collected: Mt. Pleasant, TX

Please Circle: PT MT CT ET

Phone: 512-566-6878

Client Project #

Lab Project # GEMFMO-MONTICELLO

SDG # L1684185
A024

Collected by (print): Jeff Norfleet

Site/Facility ID # GOLDEN EAGLE

P.O. #

Collected by (signature): [signature]

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
X Three Day

Quote #

Date Results Needed

Immediately Packed on Ice N ___ Y ✓

Acctnum: GEMFMO
Template: T209229
Prelogin: P1032145
PM: 206 - Jeff Carr
PB: 10/24/23 AR
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	B, Ca - 6020 250mlHDPE-HNO3	Chloride, F, SO4 125mlHDPE-NoPres	TDS 1L-HDPE NoPres	Remarks	Sample # (lab only)
W-31	Grab	GW	24.75	11-26-23	1200	3	X	X	X		01
W-32	↓	GW	23.60	11-26-23	1100	3	X	X	X		02
W-33		GW	22.10	11-26-23	1000	3	X	X	X		03
W-34		GW	DRY	11-26-23	0900	~~3~~	~~X~~	~~X~~	~~X~~	DRY WELL	
CCR Dup		GW	23.60	11-26-23	1100	3	X	X	X		04
W-30	↓	GW	27.80	11-26-23	1300	3	X	X	X		05
		GW				3	X	X	X		
		GW				3	X	X	X		

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other________

Remarks:

pH ______ Temp ______
Flow ______ Other ______

Samples returned via: ___ UPS ___ FedEx ___ Courier ________

Tracking # 6643 4312 8037

Sample Receipt Checklist
COC Seal Present/Intact: _NP _Y X N
COC Signed/Accurate: ✓ Y _N
Bottles arrive intact: ✓ Y _N
Correct bottles used: ✓ Y _N
Sufficient volume sent: ✓ Y _N
If Applicable
VOA Zero Headspace: _Y _N
Preservation Correct/Checked: ✓ Y _N
RAD Screen <0.5 mR/hr: ✓ Y _N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / (No) HCL / MeoH TBR	
[signature]	11-30-23/1600				
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: MC8 °C 13.3+0=13.3 Bottles Received: 15	If ... Date/Time PH-10BDH4321 TRC-2352382 CR6-20221V
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 12/4/23 Time: 1015	Hold: Condition: (NCF) / OK

L1684185

12/04/23 - NCF GEMFMO (MS#4)

R2/R3/R4/RX/EX

Time estimate: oh **Time spent:** oh

Members

MS Matthew Shacklock (responsible) JC Jeff Carr

- [ ] Parameter(s) past holding time
- [x] Temperature not in range
- [ ] Improper container type
- [ ] pH not in range
- [ ] Insufficient sample volume
- [ ] Sample is biphasic
- [ ] Vials received with headspace
- [ ] Broken container
- [ ] Sufficient sample remains
- [ ] If broken container: Insufficient packing material around container
- [ ] If broken container: Insufficient packing material inside cooler
- [ ] If broken container: Improper handling by carrier:_____
- [ ] If broken container: Sample was frozen
- [ ] If broken container: Container lid not intact
- [ ] Client informed by Call
- [ ] Client informed by Email
- [ ] Client informed by Voicemail
- [ ] Date/Time:_____
- [ ] PM initials:_____
- [ ] Client Contact:_____

Comments

Matthew Shacklock *4 December 2023 11:39 AM*

Received @ 13.3 degrees. Ice melted

Jeff Carr *4 December 2023 12:50 PM*

Proceed.

Matthew Shacklock *5 December 2023 2:39 PM*

L1684185, L1684188

ANALYTICAL REPORT

December 20, 2023

GEMINI Engineering

Sample Delivery Group:	L1685047
Samples Received:	12/06/2023
Project Number:	
Description:	Monticello GW - Mt. Pleasant, TX
Site:	GOLDEN EAGLE
Report To:	Adam Kaiser 2275 Cassens Drive Suite 118 Fenton, MO 63026

Entire Report Reviewed By:

Jason Romer
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

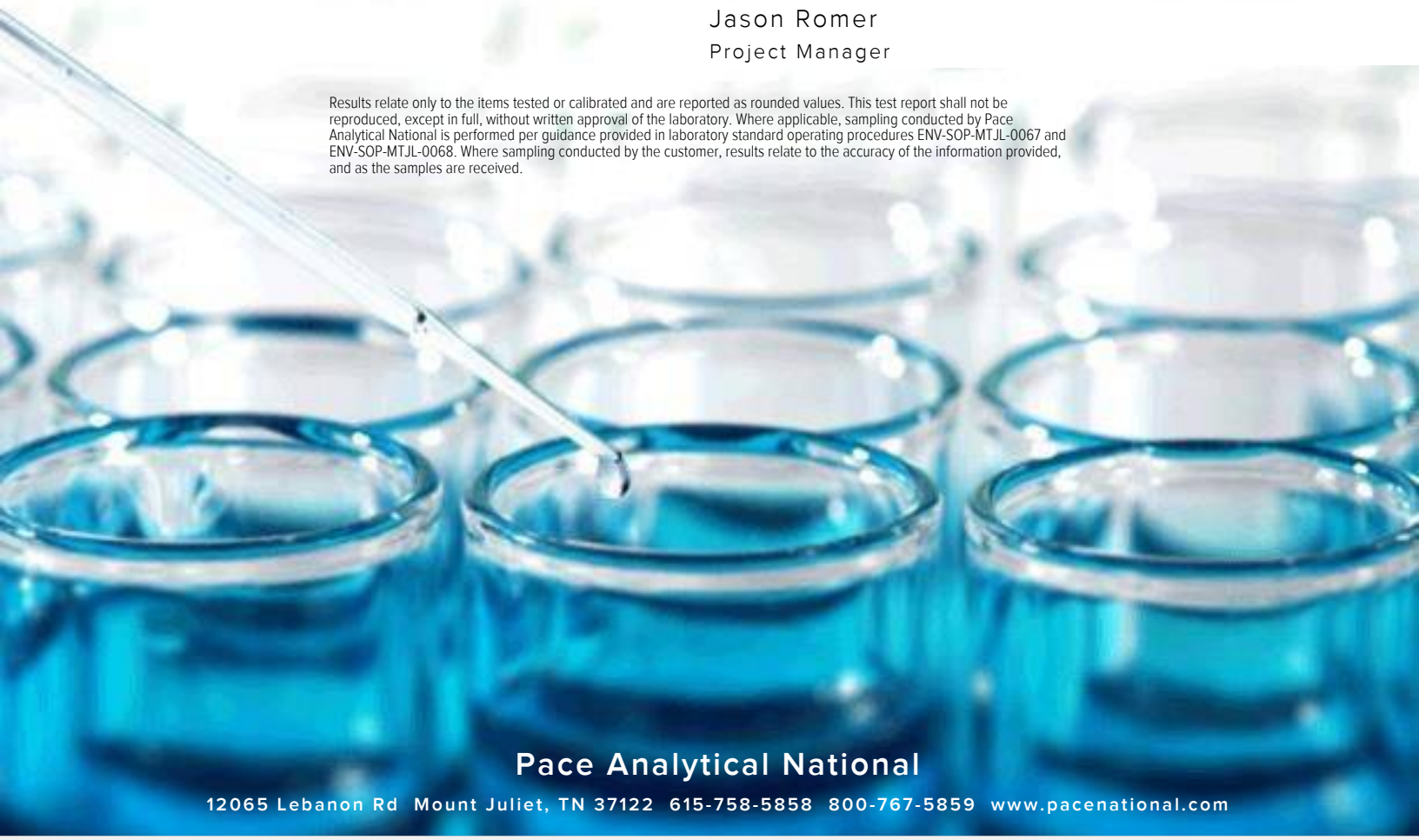

TABLE OF CONTENTS

SAMPLE SUMMARY

W-35 L1685047-01 GW

Collected by: Jeff Norfleet
Collected date/time: 12/03/23 09:00
Received date/time: 12/06/23 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2186153	1	12/09/23 14:16	12/10/23 11:20	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2190217	1	12/18/23 22:28	12/18/23 22:28	MDM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2190217	10	12/18/23 23:06	12/18/23 23:06	MDM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2185138	1	12/10/23 10:46	12/11/23 00:42	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2185138	50	12/10/23 10:46	12/11/23 13:24	SJM	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer
Project Manager

Laboratory Data Package Cover Page

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

R1 - Field chain-of-custody documentation;

R2 - Sample identification cross-reference;

R3 - Test reports (analytical data sheets) for each environmental sample that includes:

a. Items consistent with NELAC Chapter 5,

b. dilution factors,

c. preparation methods,

d. cleanup methods, and

e. if required for the project, tentatively identified compounds (TICs).

R4 - Surrogate recovery data including:

a. Calculated recovery (%R), and

b. The laboratory's surrogate QC limits.

R5 - Test reports/summary forms for blank samples;

R6 - Test reports/summary forms for laboratory control samples (LCSs) including:

a. LCS spiking amounts,

b. Calculated %R for each analyte, and

c. The laboratory's LCS QC limits.

R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

a. Samples associated with the MS/MSD clearly identified,

b. MS/MSD spiking amounts,

c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,

d. Calculated %Rs and relative percent differences (RPDs), and

e. The laboratory's MS/MSD QC limits

R8 - Laboratory analytical duplicate (if applicable) recovery and precision:

a. The amount of analyte measured in the duplicate,

b. The calculated RPD, and

c. The laboratory's QC limits for analytical duplicates.

R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Jason Romer
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: Pace Analytical National	LRC Date: 12/20/2023 13:18
Project Name: Monticello GW - Mt. Pleasant, TX	Laboratory Job Number: L1685047-01
Reviewer Name: Jason Romer	Prep Batch Number(s): WG2185138, WG2186153 and WG2190217

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			1
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?		X			2
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National	LRC Date: 12/20/2023 13:18
Project Name: Monticello GW - Mt. Pleasant, TX	Laboratory Job Number: L1685047-01
Reviewer Name: Jason Romer	Prep Batch Number(s): WG2185138, WG2186153 and WG2190217

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?			X		
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?			X		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed	X				

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Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National	LRC Date: 12/20/2023 13:18
Project Name: Monticello GW - Mt. Pleasant, TX	Laboratory Job Number: L1685047-01
Reviewer Name: Jason Romer	Prep Batch Number(s): WG2185138, WG2186153 and WG2190217

ER #[1]	Description
1	6020 WG2185138 Calcium: Percent Recovery is outside of established control limits. 9056A WG2190217 Sulfate: Percent Recovery is outside of established control limits.
2	9056A WG2190217 Chloride: Relative Percent Difference is outside of established control limits.

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	1260		20.0	20.0	1	12/10/2023 11:20	WG2186153

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Chloride	82.6		0.379	1.00	1.00	1	12/18/2023 22:28	WG2190217
Fluoride	0.0695	B J	0.0640	0.150	0.150	1	12/18/2023 22:28	WG2190217
Sulfate	799		5.94	5.00	50.0	10	12/18/2023 23:06	WG2190217

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Boron	6.36		0.482	0.0300	1.50	50	12/11/2023 13:24	WG2185138
Calcium	188		0.0936	1.00	1.00	1	12/11/2023 00:42	WG2185138

Method Blank (MB)

(MB) R4010954-1 12/10/23 11:20

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1685031-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1685031-02 12/10/23 11:20 • (DUP) R4010954-3 12/10/23 11:20

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	732	756	1	3.23		5

L1685036-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1685036-01 12/10/23 11:20 • (DUP) R4010954-4 12/10/23 11:20

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	483	489	1	1.23		5

Laboratory Control Sample (LCS)

(LCS) R4010954-2 12/10/23 11:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8610	97.8	85.0-115	

Method Blank (MB)

(MB) R4014537-1 12/18/23 12:03

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	0.0674	J	0.0640	0.150
Sulfate	U		0.594	5.00

L1684873-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1684873-01 12/18/23 19:55 • (DUP) R4014537-3 12/18/23 20:33

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	1.14	0.894	1	24.4	J P1	15
Fluoride	U	U	1	0.000		15
Sulfate	U	U	1	0.000		15

L1685487-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1685487-03 12/18/23 23:32 • (DUP) R4014537-6 12/18/23 23:44

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	19.3	19.1	1	1.15		15
Fluoride	U	U	1	0.000		15
Sulfate	38.1	37.6	1	1.31		15

Laboratory Control Sample (LCS)

(LCS) R4014537-2 12/18/23 12:16

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.2	98.0	80.0-120	
Fluoride	8.00	7.94	99.3	80.0-120	
Sulfate	40.0	37.4	93.5	80.0-120	

L1684873-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1684873-01 12/18/23 19:55 • (MS) R4014537-4 12/18/23 20:46 • (MSD) R4014537-5 12/18/23 20:59

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40.0	1.14	41.4	40.6	101	98.6	1	80.0-120			1.90	15
Fluoride	8.00	U	8.31	8.33	104	104	1	80.0-120			0.206	15
Sulfate	40.0	U	38.6	37.8	96.5	94.6	1	80.0-120			1.99	15

L1685487-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1685487-03 12/18/23 23:32 • (MS) R4014537-7 12/18/23 23:57

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	19.3	55.9	91.4	1	80.0-120	
Fluoride	8.00	U	8.10	101	1	80.0-120	
Sulfate	40.0	38.1	69.1	77.5	1	80.0-120	J6

Method Blank (MB)

(MB) R4010482-1 12/10/23 23:42

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Calcium	U		0.0936	1.00

Method Blank (MB)

(MB) R4010762-1 12/11/23 12:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.00963	0.0300

Laboratory Control Sample (LCS)

(LCS) R4010482-2 12/10/23 23:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Calcium	5.00	5.03	101	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R4010762-2 12/11/23 13:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	0.0500	0.0528	106	80.0-120	

L1684886-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1684886-12 12/10/23 23:49 • (MS) R4010482-4 12/10/23 23:55 • (MSD) R4010482-5 12/10/23 23:59

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Calcium	5.00	209	208	210	0.000	20.3	1	75.0-125	V	V	1.04	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

GEMINI Engineering

2275 Cassens Drive
Suite 118
Fenton, MO 63026

Report to: Adam Kaiser

Project Description: Monticello GW - Mt. Pleasant, TX

Phone: 512-566-6878

Collected by (print): Jeff Norfleet

Collected by (signature): [signature]

Immediately Packed on Ice N ___ Y ✓

Adam Kaiser
2275 Cassens Drive
Suite 118
Fenton, MO 63026

Email To: a.kaiser@geministl.com

City/State Collected: Mt. Pleasant, TX

Please Circle: PT MT CT ET

Client Project #

Lab Project # GEMFMO-MONTICELLO

Site/Facility ID # GOLDEN EAGLE

P.O. #

Quote #

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	B, Ca - 6020 250mlHDPE-HNO3	Chloride, F, SO4 125mlHDPE-NoPres	TDS 1L-HDPE NoPres								Remarks	Sample # (lab only)
W-35	Grab	GW	23.60	12-3-23	0900	3	X	X	X									-01
W-29		GW	DRY	12-3-23	1000	0	X	X	X									
		GW				3	X	X	X									
		GW				3	X	X	X									
		GW				3	X	X	X									
		GW				3	X	X	X									
		GW				3	X	X	X									
		GW				3	X	X	X									

Pres Chk

Pace
MT JULIET, TN

SDG # L1685047
D052

Acctnum: GEMFMO
Template: T209229
Prelogin: P1032145
PM: 2036 - Jeff Carr
PB: 12/13/23
Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH ____ Temp ____
Flow ____ Other ____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 6643 4312 8004

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

	Date:	Time:		
Relinquished by: (Signature) [signature]	12-5-23	1600	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: DPA8 °C Bottles Received: 5.8 to 5.8
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 12-6-23 Time: 9:30

If preservation required by Login Date/Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

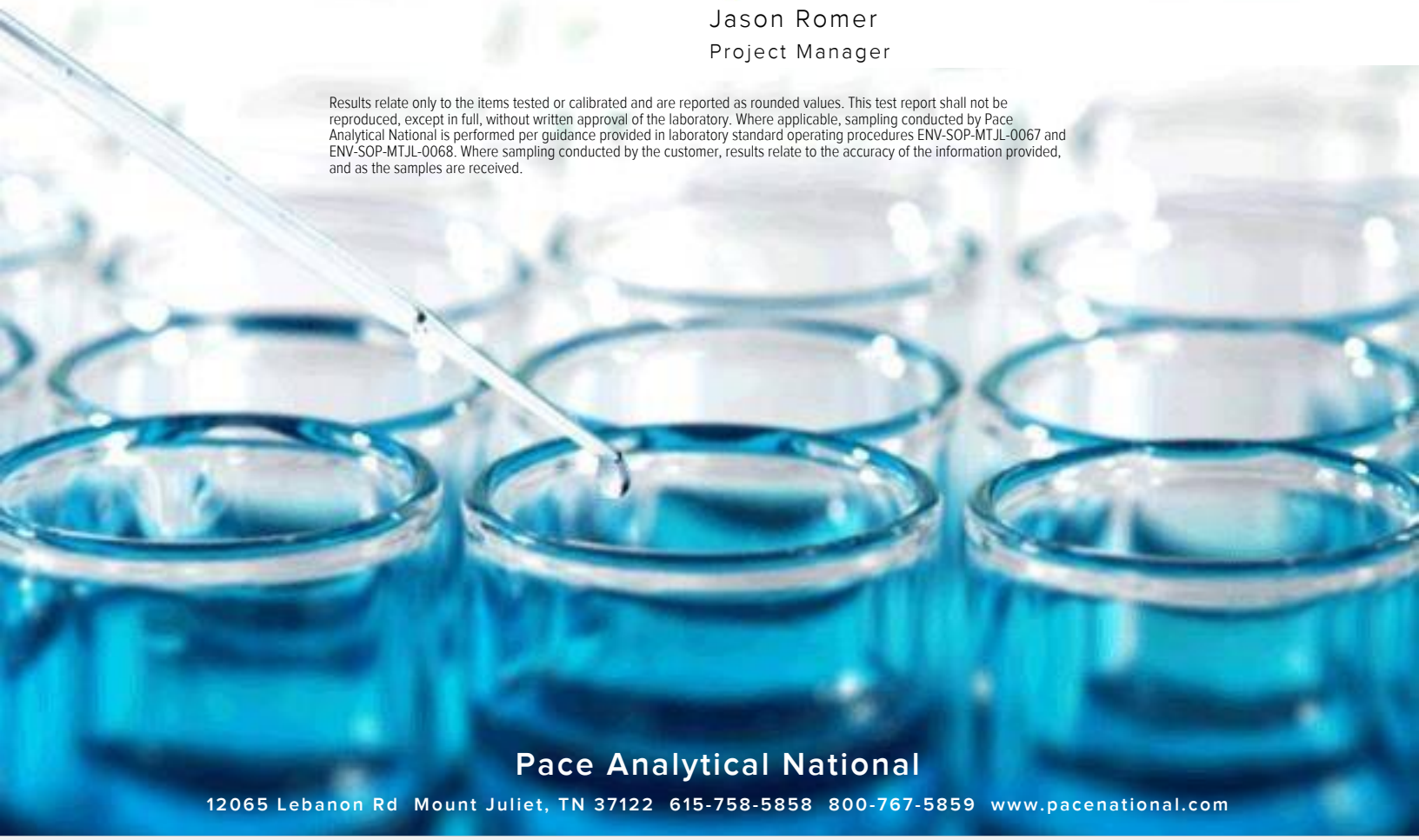
June 29, 2023

GEMINI Engineering

Sample Delivery Group:	L1621910
Samples Received:	06/01/2023
Project Number:	
Description:	Golden Eagle Groundwater CCR
Site:	MONTICELLO
Report To:	Adam Kaiser 2275 Cassens Drive Suite 118 Fenton, MO 63026

Entire Report Reviewed By:

Jason Romer
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

W-29 L1621910-01 GW

Collected by: Jeff Norfleet | Collected date/time: 05/28/23 14:00 | Received date/time: 06/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2071808	1	06/05/23 12:50	06/05/23 14:29	MMF	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2070782	1	06/05/23 10:25	06/07/23 00:44	SJM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2070782	5	06/05/23 10:25	06/07/23 11:29	SJM	Mt. Juliet, TN
Subcontracted Analyses	WG2078281	1	06/29/23 00:00	06/29/23 00:00	-	Indianapolis, IN 46268

W-30 L1621910-02 GW

Collected by: Jeff Norfleet | Collected date/time: 05/28/23 13:00 | Received date/time: 06/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2071808	1	06/05/23 12:50	06/05/23 14:29	MMF	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2070782	1	06/05/23 10:25	06/07/23 00:47	SJM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2070782	5	06/05/23 10:25	06/07/23 11:32	SJM	Mt. Juliet, TN
Subcontracted Analyses	WG2078281	1	06/29/23 00:00	06/29/23 00:00	-	Indianapolis, IN 46268

W-31 L1621910-03 GW

Collected by: Jeff Norfleet | Collected date/time: 05/28/23 12:00 | Received date/time: 06/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2071808	1	06/05/23 12:50	06/05/23 14:29	MMF	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2070782	1	06/05/23 10:25	06/07/23 00:51	SJM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2070782	1	06/05/23 10:25	06/07/23 11:35	SJM	Mt. Juliet, TN
Subcontracted Analyses	WG2078281	1	06/29/23 00:00	06/29/23 00:00	-	Indianapolis, IN 46268

W-32 L1621910-04 GW

Collected by: Jeff Norfleet | Collected date/time: 05/28/23 11:00 | Received date/time: 06/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2075016	1	06/10/23 06:50	06/10/23 07:25	MMF	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2070782	1	06/05/23 10:25	06/07/23 00:54	SJM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2070782	1	06/05/23 10:25	06/07/23 11:39	SJM	Mt. Juliet, TN
Subcontracted Analyses	WG2078281	1	06/29/23 00:00	06/29/23 00:00	-	Indianapolis, IN 46268

W-33 L1621910-05 GW

Collected by: Jeff Norfleet | Collected date/time: 05/28/23 10:00 | Received date/time: 06/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2071808	1	06/05/23 12:50	06/05/23 14:29	MMF	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2070782	1	06/05/23 10:25	06/07/23 00:57	SJM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2070782	1	06/05/23 10:25	06/07/23 11:42	SJM	Mt. Juliet, TN
Subcontracted Analyses	WG2078281	1	06/29/23 00:00	06/29/23 00:00	-	Indianapolis, IN 46268

W-35 L1621910-06 GW

Collected by: Jeff Norfleet | Collected date/time: 05/28/23 09:00 | Received date/time: 06/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2071808	1	06/05/23 12:50	06/05/23 14:29	MMF	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2070782	1	06/05/23 10:25	06/07/23 01:01	SJM	Mt. Juliet, TN

W-35 L1621910-06 GW

Collected by: Jeff Norfleet
Collected date/time: 05/28/23 09:00
Received date/time: 06/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020	WG2070782	5	06/05/23 10:25	06/07/23 12:05	SJM	Mt. Juliet, TN
Subcontracted Analyses	WG2078281	1	06/29/23 00:00	06/29/23 00:00	-	Indianapolis, IN 46268

CCR DUP L1621910-07 GW

Collected by: Jeff Norfleet
Collected date/time: 05/28/23 11:00
Received date/time: 06/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2071808	1	06/05/23 12:50	06/05/23 14:29	MMF	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2070782	1	06/05/23 10:25	06/07/23 01:04	SJM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2070782	1	06/05/23 10:25	06/07/23 11:49	SJM	Mt. Juliet, TN
Subcontracted Analyses	WG2078281	1	06/29/23 00:00	06/29/23 00:00	-	Indianapolis, IN 46268

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer
Project Manager

Project Narrative

L1621910 -01, -02, -03, -04, -05, -06, -07 contains subout data that is included after the chain of custody.

Laboratory Data Package Cover Page

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

R1 - Field chain-of-custody documentation;

R2 - Sample identification cross-reference;

R3 - Test reports (analytical data sheets) for each environmental sample that includes:

a. Items consistent with NELAC Chapter 5,

b. dilution factors,

c. preparation methods,

d. cleanup methods, and

e. if required for the project, tentatively identified compounds (TICs).

R4 - Surrogate recovery data including:

a. Calculated recovery (%R), and

b. The laboratory's surrogate QC limits.

R5 - Test reports/summary forms for blank samples;

R6 - Test reports/summary forms for laboratory control samples (LCSs) including:

a. LCS spiking amounts,

b. Calculated %R for each analyte, and

c. The laboratory's LCS QC limits.

R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

a. Samples associated with the MS/MSD clearly identified,

b. MS/MSD spiking amounts,

c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,

d. Calculated %Rs and relative percent differences (RPDs), and

e. The laboratory's MS/MSD QC limits

R8 - Laboratory analytical duplicate (if applicable) recovery and precision:

a. The amount of analyte measured in the duplicate,

b. The calculated RPD, and

c. The laboratory's QC limits for analytical duplicates.

R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Jason Romer
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: Pace Analytical National	LRC Date: 06/29/2023 11:26
Project Name: Golden Eagle Groundwater CCR	Laboratory Job Number: L1621910-01, 02, 03, 04, 05, 06 and 07
Reviewer Name: Jason Romer	Prep Batch Number(s): WG2070782, WG2071808, WG2075016 and WG2078281

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?		X			1
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?		X			3
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National	LRC Date: 06/29/2023 11:26
Project Name: Golden Eagle Groundwater CCR	Laboratory Job Number: L1621910-01, 02, 03, 04, 05, 06 and 07
Reviewer Name: Jason Romer	Prep Batch Number(s): WG2070782, WG2071808, WG2075016 and WG2078281

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?			X		
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?			X		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?		X			4
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National	LRC Date: 06/29/2023 11:26
Project Name: Golden Eagle Groundwater CCR	Laboratory Job Number: L1621910-01, 02, 03, 04, 05, 06 and 07
Reviewer Name: Jason Romer	Prep Batch Number(s): WG2070782, WG2071808, WG2075016 and WG2078281

ER #[1]	Description
1	2540 C-2011 WG2071808 L1621910-01, 02, 03, 05, 06 and 07: Prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values. 2540 C-2011 WG2075016 L1621910-04: Prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.
2	6020 WG2070782 Calcium: Percent Recovery is outside of established control limits.
3	2540 C-2011 WG2075016 Dissolved Solids: Relative Percent Difference is outside of established control limits.
4	6020 WG2070782 Calcium: Post Spike Percent Recovery and/or Serial Dilution Relative Percent Difference was outside of established control limits.

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	1250	Q	20.0	20.0	1	06/05/2023 14:29	WG2071808

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Boron	3.35		0.0482	0.0300	0.150	5	06/07/2023 11:29	WG2070782
Calcium	97.7		0.0936	1.00	1.00	1	06/07/2023 00:44	WG2070782

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	911	Q	13.3	13.3	1	06/05/2023 14:29	WG2071808

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Boron	6.18		0.0482	0.0300	0.150	5	06/07/2023 11:32	WG2070782
Calcium	97.9		0.0936	1.00	1.00	1	06/07/2023 00:47	WG2070782

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	348	Q	10.0	10.0	1	06/05/2023 14:29	WG2071808

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Boron	1.20		0.00963	0.0300	0.0300	1	06/07/2023 11:35	WG2070782
Calcium	37.2		0.0936	1.00	1.00	1	06/07/2023 00:51	WG2070782

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	420	Q	10.0	10.0	1	06/10/2023 07:25	WG2075016

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Boron	1.37		0.00963	0.0300	0.0300	1	06/07/2023 11:39	WG2070782
Calcium	85.8		0.0936	1.00	1.00	1	06/07/2023 00:54	WG2070782

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	471	Q	10.0	10.0	1	06/05/2023 14:29	WG2071808

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Boron	1.60		0.00963	0.0300	0.0300	1	06/07/2023 11:42	WG2070782
Calcium	101		0.0936	1.00	1.00	1	06/07/2023 00:57	WG2070782

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	1530	Q	20.0	20.0	1	06/05/2023 14:29	WG2071808

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Boron	5.21		0.0482	0.0300	0.150	5	06/07/2023 12:05	WG2070782
Calcium	41.4		0.0936	1.00	1.00	1	06/07/2023 01:01	WG2070782

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	412	Q	10.0	10.0	1	06/05/2023 14:29	WG2071808

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Boron	1.46		0.00963	0.0300	0.0300	1	06/07/2023 11:49	WG2070782
Calcium	86.0		0.0936	1.00	1.00	1	06/07/2023 01:04	WG2070782

Method Blank (MB)

(MB) R3934370-1 06/05/23 14:29

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1620293-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1620293-03 06/05/23 14:29 • (DUP) R3934370-3 06/05/23 14:29

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	7540	7840	1	3.90		5

L1620293-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1620293-04 06/05/23 14:29 • (DUP) R3934370-4 06/05/23 14:29

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	6170	5960	1	3.46		5

Laboratory Control Sample (LCS)

(LCS) R3934370-2 06/05/23 14:29

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8550	97.2	77.3-123	

Method Blank (MB)

(MB) R3936294-1 06/10/23 07:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1623266-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1623266-01 06/10/23 07:25 • (DUP) R3936294-3 06/10/23 07:25

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	2170	2310	1	6.25	J3	5

Laboratory Control Sample (LCS)

(LCS) R3936294-2 06/10/23 07:25

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	7820	88.9	77.3-123	

QUALITY CONTROL SUMMARY

L1621910-01,02,03,04,05,06,07

Method Blank (MB)

(MB) R3933550-1 06/06/23 23:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.00963	0.0300
Calcium	U		0.0936	1.00

Laboratory Control Sample (LCS)

(LCS) R3933550-2 06/06/23 23:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	0.0500	0.0500	100	80.0-120	
Calcium	5.00	4.96	99.3	80.0-120	

L1621870-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1621870-07 06/06/23 23:17 • (MS) R3933550-4 06/06/23 23:24 • (MSD) R3933550-5 06/06/23 23:28

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	0.0500	0.0862	0.133	0.136	93.6	99.0	1	75.0-125			2.01	20
Calcium	5.00	203	205	208	41.2	108	1	75.0-125	V		1.62	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J3	The associated batch QC was outside the established quality control range for precision.
Q	Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.
V	The sample concentration is too high to evaluate accurate spike recoveries.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
Commercial Liability Partners, LLC

2275 Cassens Drive
Suite 118
Fenton. MO 63026

Billing Information:
Adam Kaiser
2275 Cassens Drive
Suite 118
Fenton, MO 63026

Pres Chk

Report to:
Adam Kaiser

Email To:
a.kaiser@geministl.com;jeffnorfleet@hotmail.c

Project Description:
Golden Eagle Groundwater CCR

City/State Collected: Mt. Pleasant, TX

Please Circle: PT MT CT ET

Phone: **314-624-1604**

Client Project #

Lab Project #
COMLIAFMO-GOLDEAGLE

Collected by (print):
Jeff Norfleet

Site/Facility ID #
Monticello

P.O. #

Collected by (signature):
Jeff Norfleet

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Anions - Cld, F, SO4 125mlHDPE-NoPres	B, Ca - 6020 250mlHDPE-HNO3	TDS 250mlHDPE-NoPres							Remarks	Sample # (lab only)
W-29	Grab	GW	20.40	5-28-23	1400	3	X	X	X								-01
W-30		GW	19.50		1300	3	X	X	X								-02
W-31		GW	13.90		1200	3	X	X	X								-03
W-32		GW	14.40		1100	3	X	X	X								-04
W-33		GW	24.60		1000	3	X	X	X								-05
W-35		GW	23.60		0900	3	X	X	X								-06
CCR Dup	↓	GW	14.40	↓	1100	3	X	X	X								-07
		GW				3	X	X	X								
		GW				3	X	X	X								
		GW				3	X	X	X								

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 162910
C241

Acctnum: **COMLIAFMO**
Template: **T175182**
Prelogin: **P998374**
PM: **206 - Jeff Carr**
PB: BW 5/9

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 6339 7 2218 8802

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Jeff Norfleet	5-31-23	1630	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 1.1 °C Bottles Received: 21
NSA7 2.1402-1

If preservation required by Login: Date/Time

Date: 6/1/23 Time: 9:00

PH-10BDH4321 TRC-2144141
CR6-20221V

Condition: NCF / OK

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

June 28, 2023

Jimmy Huckaba
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122

RE: Project: Golden Eagle GW CCR/WG2078281
Pace Project No.: 50347460

Dear Jimmy Huckaba:

Enclosed are the analytical results for sample(s) received by the laboratory on June 16, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Randal Rastorfer

Randal Rastorfer
randal.rastorfer@pacelabs.com
(317)228-3100
Project Manager

Enclosures

cc: Pace National Subout Team, Pace National

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Golden Eagle GW CCR/WG2078281
Pace Project No.: 50347460

Pace Analytical Services Indianapolis
7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Golden Eagle GW CCR/WG2078281
Pace Project No.: 50347460

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50347460001	**W-29**	Water	05/28/23 14:00	06/16/23 08:55
50347460002	**W-30**	Water	05/28/23 13:00	06/16/23 08:55
50347460003	**W-31**	Water	05/28/23 12:00	06/16/23 08:55
50347460004	**W-32**	Water	05/28/23 11:00	06/16/23 08:55
50347460005	**W-33**	Water	05/28/23 10:00	06/16/23 08:55
50347460006	**W-35**	Water	05/28/23 09:00	06/16/23 08:55
50347460007	**CCR DUP**	Water	05/28/23 11:00	06/16/23 08:55

Pace Analytical Services, LLC
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Indianapolis, IN 46268
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SAMPLE ANALYTE COUNT

Project: Golden Eagle GW CCR/WG2078281
Pace Project No.: 50347460

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50347460001	**W-29**	EPA 9056	RID	3	PASI-I
50347460002	**W-30**	EPA 9056	RID	3	PASI-I
50347460003	**W-31**	EPA 9056	RID	3	PASI-I
50347460004	**W-32**	EPA 9056	RID	3	PASI-I
50347460005	**W-33**	EPA 9056	RID	3	PASI-I
50347460006	**W-35**	EPA 9056	RID	3	PASI-I
50347460007	**CCR DUP**	EPA 9056	RID	3	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Golden Eagle GW CCR/WG2078281
Pace Project No.: 50347460

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50347460001	**W-29**					
EPA 9056	Chloride	81.7	mg/L	2.5	06/22/23 00:30	
EPA 9056	Fluoride	0.33	mg/L	0.10	06/24/23 06:15	
EPA 9056	Sulfate	707	mg/L	25.0	06/22/23 00:48	
50347460002	**W-30**					
EPA 9056	Chloride	35.5	mg/L	2.5	06/21/23 23:36	
EPA 9056	Sulfate	633	mg/L	25.0	06/21/23 23:54	
50347460003	**W-31**					
EPA 9056	Chloride	45.3	mg/L	2.5	06/21/23 21:47	
EPA 9056	Sulfate	155	mg/L	2.5	06/21/23 21:47	
50347460004	**W-32**					
EPA 9056	Chloride	5.9	mg/L	2.5	06/21/23 19:59	
EPA 9056	Fluoride	1.7	mg/L	1.0	06/21/23 19:59	
EPA 9056	Sulfate	213	mg/L	2.5	06/21/23 19:59	
50347460005	**W-33**					
EPA 9056	Chloride	6.7	mg/L	2.5	06/21/23 18:10	
EPA 9056	Fluoride	3.0	mg/L	1.0	06/21/23 18:10	
EPA 9056	Sulfate	203	mg/L	2.5	06/21/23 18:10	
50347460006	**W-35**					
EPA 9056	Chloride	96.7	mg/L	2.5	06/21/23 14:33	
EPA 9056	Sulfate	936	mg/L	25.0	06/21/23 14:51	
50347460007	**CCR DUP**					
EPA 9056	Chloride	5.7	mg/L	2.5	06/21/23 20:53	
EPA 9056	Fluoride	1.8	mg/L	1.0	06/21/23 20:53	
EPA 9056	Sulfate	212	mg/L	2.5	06/21/23 20:53	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Golden Eagle GW CCR/WG2078281
Pace Project No.: 50347460

Sample: W-29 **Lab ID: 50347460001** Collected: 05/28/23 14:00 Received: 06/16/23 08:55 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis							
Chloride	**81.7**	mg/L	2.5	10		06/22/23 00:30	16887-00-6	
Fluoride	**0.33**	mg/L	0.10	1		06/24/23 06:15	16984-48-8	
Sulfate	**707**	mg/L	25.0	100		06/22/23 00:48	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Golden Eagle GW CCR/WG2078281
Pace Project No.: 50347460

Sample: W-30 **Lab ID: 50347460002** Collected: 05/28/23 13:00 Received: 06/16/23 08:55 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis							
Chloride	**35.5**	mg/L	2.5	10		06/21/23 23:36	16887-00-6	
Fluoride	ND	mg/L	1.0	10		06/21/23 23:36	16984-48-8	
Sulfate	**633**	mg/L	25.0	100		06/21/23 23:54	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Golden Eagle GW CCR/WG2078281
Pace Project No.: 50347460

Sample: W-31 **Lab ID: 50347460003** Collected: 05/28/23 12:00 Received: 06/16/23 08:55 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis							
Chloride	**45.3**	mg/L	2.5	10		06/21/23 21:47	16887-00-6	
Fluoride	ND	mg/L	0.10	1		06/22/23 19:05	16984-48-8	
Sulfate	**155**	mg/L	2.5	10		06/21/23 21:47	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Golden Eagle GW CCR/WG2078281
Pace Project No.: 50347460

Sample: W-32 **Lab ID: 50347460004** Collected: 05/28/23 11:00 Received: 06/16/23 08:55 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis							
Chloride	**5.9**	mg/L	2.5	10		06/21/23 19:59	16887-00-6	
Fluoride	**1.7**	mg/L	1.0	10		06/21/23 19:59	16984-48-8	
Sulfate	**213**	mg/L	2.5	10		06/21/23 19:59	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Golden Eagle GW CCR/WG2078281
Pace Project No.: 50347460

Sample: W-33 **Lab ID: 50347460005** Collected: 05/28/23 10:00 Received: 06/16/23 08:55 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis							
Chloride	**6.7**	mg/L	2.5	10		06/21/23 18:10	16887-00-6	
Fluoride	**3.0**	mg/L	1.0	10		06/21/23 18:10	16984-48-8	
Sulfate	**203**	mg/L	2.5	10		06/21/23 18:10	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Golden Eagle GW CCR/WG2078281
Pace Project No.: 50347460

Sample: W-35 **Lab ID: 50347460006** Collected: 05/28/23 09:00 Received: 06/16/23 08:55 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis							
Chloride	**96.7**	mg/L	2.5	10		06/21/23 14:33	16887-00-6	
Fluoride	ND	mg/L	1.0	10		06/21/23 14:33	16984-48-8	
Sulfate	**936**	mg/L	25.0	100		06/21/23 14:51	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Golden Eagle GW CCR/WG2078281
Pace Project No.: 50347460

Sample: CCR DUP **Lab ID: 50347460007** Collected: 05/28/23 11:00 Received: 06/16/23 08:55 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis							
Chloride	**5.7**	mg/L	2.5	10		06/21/23 20:53	16887-00-6	
Fluoride	**1.8**	mg/L	1.0	10		06/21/23 20:53	16984-48-8	
Sulfate	**212**	mg/L	2.5	10		06/21/23 20:53	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Golden Eagle GW CCR/WG2078281
Pace Project No.: 50347460

QC Batch: 740341
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50347460001, 50347460002, 50347460003, 50347460004, 50347460005, 50347460006, 50347460007

METHOD BLANK: 3396092 Matrix: Water
Associated Lab Samples: 50347460001, 50347460002, 50347460003, 50347460004, 50347460005, 50347460006, 50347460007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	06/21/23 13:03	
Fluoride	mg/L	ND	0.10	06/21/23 13:03	
Sulfate	mg/L	ND	0.25	06/21/23 13:03	

LABORATORY CONTROL SAMPLE: 3396093

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	91	80-120	
Fluoride	mg/L	1	0.98	98	80-120	
Sulfate	mg/L	5	4.8	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3396094 3396095

Parameter	Units	50347507001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	102	250	250	337	332	94	92	80-120	1	15	
Fluoride	mg/L	0.34	1	1	1.2	1.3	88	94	80-120	5	15	H1
Sulfate	mg/L	2330	500	500	2810	2800	96	93	80-120	1	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3396096 3396097

Parameter	Units	50347537002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	83.3	25	25	108	108	99	100	80-120	0	15	
Fluoride	mg/L	0.15	1	1	1.1	1.1	94	95	80-120	0	15	
Sulfate	mg/L	ND	5	5	4.6	4.5	91	89	80-120	2	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Golden Eagle GW CCR/WG2078281
Pace Project No.: 50347460

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H1 Analysis conducted outside the recognized method holding time.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Golden Eagle GW CCR/WG2078281
Pace Project No.: 50347460

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50347460006	**W-35**	EPA 9056	740341		
50347460005	**W-33**	EPA 9056	740341		
50347460004	**W-32**	EPA 9056	740341		
50347460007	**CCR DUP**	EPA 9056	740341		
50347460003	**W-31**	EPA 9056	740341		
50347460002	**W-30**	EPA 9056	740341		
50347460001	**W-29**	EPA 9056	740341		

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

WO 50347460

Section A — Required Client Information:

Company:	Pace Analytical
Address:	12065 Lebanon Rd.
	Mt. Juliet, TN 37122
Email:	MTJLSuboutTeam@pacelabs.com
Phone:	(615) 773-9756 Fax: (615) 758-5859
Requested Due Date:	28-Jun

Section B — Required Project Information:

Report To:	Pace Analytical Subout Team
Copy To:	
Purchase Order #:	L1621910
Project Name:	Golden Eagle Groundwater CCR
Project #:	

Section C — Invoice Information:

Attention:	Adam Kaiser
Company Name:	
Address:	
Pace Quote:	
Pace Project Manager:	Randal Rastorfer
Pace Profile #:	38076

Regulatory Agency

State / Location

TX

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Chloride 9056	Fluoride 9056	Sulfate by 9056	Residual Chlorine (Y/N)	
1	W-29	WT				28-May	14:00		1								1		X	X	X		001
2	W-30	WT				28-May	13:00		1								1		X	X	X		002
3	W-31	WT				28-May	12:00		1								1		X	X	X		003
4	W-32	WT				28-May	11:00		1								1		X	X	X		004
5	W-33	WT				28-May	10:00		1								1		X	X	X		005
6	W-35	WT				28-May	9:00		1								1		X	X	X		006
7	CCR DUP	WT				28-May	11:00		1								1		X	X	X		007
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	James C Huckaba	15-Jun	11:24	Fedex		
Pace Analytical Batch: WG2078281	Fedex	6/16	0855	Justin	6/16	0855
Pace Analytical SDGs: L1621910						
Location: Indianapolis, IN 46268						

SAMPLE CONDITIONS			
TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
25	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed:

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: LR 6/16/23 1100

1. Courier: ☒ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____

2. Custody Seal on Cooler/Box Present: ☒ Yes ☐ No

(If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**

3. Thermometer: 1 2 3 4 5 6 A (B) C D E F

4. Cooler Temperature(s): 24/25 | 1.1/1.2 | | |

(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____

6. Ice Type: ☒ Wet ☐ Blue ☐ None

7. If temp. is over 6°C or under 0°C, was the PM notified?: ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X
Short Hold Time Analysis (48 hours or less)? Analysis:		X
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:	
Rush TAT Requested (4 days or less):		X
Custody Signatures Present?	X	
Containers Intact?.	X	
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X	
Extra labels on Terracore Vials? (soils only)		X

	Yes	No	N/A
All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			X
	Present	Absent	N/A
Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Headspace Wisconsin Sulfide?			X
	Present	Absent	No VOA Vials Sent
Headspace in VOA Vials (>6mm): See Containter Count form for details			X
Trip Blank Present?		X	
Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

			VIALS					AMBER GLASS							PLASTIC									OTHER -					
		MeOH (only) / SBS / DI / R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit	BP4U	Matrix
COC Line Item	WGFU																											
1																											1	W
2																												
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
Red	Yellow	Green	Black
HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe