ENERCON — Groundwater Well Sampling Record

PROJECT: GRDA – Grand River Energy Center, Chouteau, OK

ENERCON Project #: GRDA-00021

Well Number:	Purging Methods: Purge to stabilization (pH +/- 0.1, conductivity +/- 5%, and Turbidity <10 NTU). Well purging, groundwater parameter data collection and sample collection utilizing a Geotech™ peristaltic pump, YSI ™ Pro Series groundwater quality probe, and Hach™ water turbidity meter.	ENERCON Sampling Personnel:	Other Personnel:
MW22-04		Caleb Cope	

Latitude/ Longitude: N E	Depth to Free Product:	Depth to Water: 16.57	Total Depth of Well: 28.05	Screened Interval: 13.05 - 28.05
Date Started: 10-4-22 Date Finished:	Pump/Tubing Inlet Depth: 22		Well Casing Diameter:	
Sample Collection Time: 1130	Duplicate Sample Name:		Duplicate Collection Time:	

Parameter Check Time	Discharge Rate (ml/min)	Cumulative Purge Volume (ml)	H_2O Temp. (C°)	pH	Conductivity (mS/cm)	DO (mg/L)	ORP	Turbidity (NTU)	DTW (ft)	Pump setting/adjustments/ remarks
1035	200	-	22.5	6.19	566	3.47	84.7	6.73	16.73	Slowed
1040	150	1000	22.4	6.19	542	2.72	99.8	5.91		Slowed
1045	~~200~~ 125	1750	22.2	6.17	542	2.84	108.7	10.02	16.81	
1050	" "	2375	22.1	6.18	546	2.58	112.1	21.03	16.85	
1055		3000	22.1	6.15	557	2.64	116.3	18.86	16.91	
1100		3625	22.1	6.15	568	2.56	119.0	17.15		
1105		4250	21.9	6.14	579	2.37	121.6	9.76	16.99	
1110		4875	21.9	6.15	580	2.41	122.3	13.63		
1115		5500	21.8	6.14	582	2.22	122.8	7.04		
1120		6125	21.8	6.15	583	2.15	122.8	6.67		
1125		6750	21.8	6.14	582	2.25	122.9	5.94	17.00	
									17.01	

Volume = H x conversion factor

Volume Conversion factors
2" well – 0.163 gal/ft
4" well – 0.65 gal/ft
6" well – 1.47 gal/ft

Water Quality Instrument details

YSI™ Multimeter SN: 14E100366

Scientific™ Turbidimeter SN: 202002618

Attachment A
Laboratory Analytical Reports

ENERCON

Groundwater Well Sampling Record

PROJECT: GRDA – Grand River Energy Center, Chouteau, OK		ENERCON Project #: GRDA-00021	
Well Number: MW 93-2	**Purging Methods:** Purge to stabilization (pH +/- 0.1, conductivity +/- 5%, and Turbidity <10 NTU). Well purging, groundwater parameter data collection and sample collection utilizing a Geotech™ peristaltic pump, YSI ™ Pro Series groundwater quality probe, and Hach™ water turbidity meter.	**ENERCON Sampling Personnel:** Caleb Cope	**Other Personnel:**

Latitude/ Longitude: N E	Depth to Free Product:	Depth to Water: 8.04	Total Depth of Well: 25'±	Screened Interval: 15-25' (?)
Date Started: 10-4-22	Date Finished:	Pump/Tubing Inlet Depth: 20'	Well Casing Diameter:	
Sample Collection Time: 1255		Duplicate Sample Name:	Duplicate Collection Time:	

Parameter Check Time	Discharge Rate (ml/min)	Cumulative Purge Volume (ml)	H_20 Temp. (C°)	pH	Conductivity (mS/cm)	DO (mg/L)	ORP	Turbidity (NTU)	DTW (ft)	Pump setting/adjustments/ remarks
1215	200	—	24.3	8.45	12,888	1.38	-175.8	5.22	8.08	
1220	" "	1000	24.3	8.44	12,864	.27	-187.8	4.47	8.06	
1225	↓	2000	24.3	8.44	12,897	.16	-199.4	2.52	8.06	
1230	↓	3000	24.2	8.44	12,724	.16	-205.7	2.49	8.06	
1235		4000	24.2	8.45	12,749	.15	-211.8	2.34	8.06	
1240		5000	24.2	8.48	13,051	.13	-217.9	2.55		
1245		6000	24.1	8.49	12,867	.14	-220.5	2.90		
1250		7000	24.1	8.48	12,970	.14	-224.0	2.97		
									8.04	

* Collected DUP. @ 1300 (MW93-2 DUP)

Volume = H x conversion factor

Volume Conversion factors
2" well – 0.163 gal/ft
4" well – 0.65 gal/ft
6" well – 1.47 gal/ft

Water Quality Instrument details
YSI™ Multimeter SN: 14E100366
Scientific™ Turbidimeter SN: 202002618

ENERCON Groundwater Well Sampling Record

PROJECT: GRDA – Grand River Energy Center, Chouteau, OK

ENERCON Project #: GRDA-00021

Well Number: MW22-03 "the trees"

Purging Methods: Purge to stabilization (pH +/- 0.1, conductivity +/- 5%, and Turbidity <10 NTU). Well purging, groundwater parameter data collection and sample collection utilizing a Geotech™ peristaltic pump, YSI ™ Pro Series groundwater quality probe, and Hach™ water turbidity meter.

ENERCON Sampling Personnel: Caleb Cope

Other Personnel:

Latitude/ Longitude: N E

Depth to Free Product:

Depth to Water: 6.51

Total Depth of Well: 17.42

Screened Interval: 7-17.42

Date Started: 10-4-22 **Date Finished:**

Pump/Tubing Inlet Depth: 12

Well Casing Diameter:

Sample Collection Time: 1410

Duplicate Sample Name:

Duplicate Collection Time:

Parameter Check Time	Discharge Rate (ml/min)	Cumulative Purge Volume (ml)	H_20 Temp. (C°)	pH	Conductivity (mS/cm)	DO (mg/L)	ORP	Turbidity (NTU)	DTW (ft)	Pump setting/adjustments/ remarks
1340	200	~~1000~~	23.3	6.11	1172	.46	-8.5	2.94	6.55	
1345	"	1000	23.3	6.11	1194	.27	-13.2	2.53		
1350	↓	2000	23.2	6.09	1183	.20	-11.8	2.42	6.54	
1355		3000	23.2	6.09	1187	.20	-11.5	1.04		
1400		4000	23.2	6.08	1184	.19	-10.6	.97	6.54	
1405		5000	23.2	6.08	1185	.19	-10.7	.99	6.54	
									6.52	

Volume = H x conversion factor

Volume Conversion factors

2" well – 0.163 gal/ft

4" well – 0.65 gal/ft

6" well – 1.47 gal/ft

Water Quality Instrument details

YSI™ Multimeter SN:14E100366

Scientific™ Turbidimeter SN: 202002618

ENERCON

Groundwater Well Sampling Record

PROJECT: GRDA – Grand River Energy Center, Chouteau, OK			ENERCON Project #: GRDA-00021
Well Number: MW 22-07 "the Swamp"	**Purging Methods:** Purge to stabilization (pH +/- 0.1, conductivity +/- 5%, and Turbidity <10 NTU). Well purging, groundwater parameter data collection and sample collection utilizing a Geotech™ peristaltic pump, YSI ™ Pro Series groundwater quality probe, and Hach™ water turbidity meter.	**ENERCON Sampling Personnel:** Caleb Cope	**Other Personnel:**

Latitude/ Longitude: N E	Depth to Free Product:	Depth to Water: 19.38	Total Depth of Well: 25	Screened Interval: 10-25
Date Started: 10-4-22	Date Finished:	Pump/Tubing Inlet Depth: 22'	Well Casing Diameter: 2"	
Sample Collection Time: 1510		Duplicate Sample Name:	Duplicate Collection Time:	

Parameter Check Time	Discharge Rate (ml/min)	Cumulative Purge Volume (ml)	H_2O Temp. (C°)	pH	Conductivity (mS/cm)	DO (mg/L)	ORP	Turbidity (NTU)	DTW (ft)	Pump setting/adjustments/ remarks
1435	200	—	22.2	6.62	1100	1.13	47.6	2.80	19.46	Slowed
1440	150	1000	22.3	6.67	1109	.54	47.3	3.09		
1445	"	1750	22.4	6.70	1115	.41	45.5	2.91	19.44	
1450	↓	2500	22.4	6.68	1109	.44	45.1	3.80	19.44	
1455		3250	22.3	6.67	1113	.42	44.0	3.59		
1500		4000	22.3	6.67	1114	.40	43.1	3.02	19.44	
1505		4750	22.6	6.68	1118	.42	42.5	1.59		
									19.40	

Volume = H x conversion factor

Volume Conversion factors

2" well – 0.163 gal/ft
4" well – 0.65 gal/ft
6" well – 1.47 gal/ft

Water Quality Instrument details

YSI™ Multimeter SN:14E100366

Scientific™ Turbidimeter SN: 202002618

ENERCON

Groundwater Well Sampling Record

PROJECT: GRDA – Grand River Energy Center, Chouteau, OK

ENERCON Project #: GRDA-00021

Well Number:	Purging Methods: Purge to stabilization (pH +/- 0.1, conductivity +/- 5%, and Turbidity <10 NTU). Well purging, groundwater parameter data collection and sample collection utilizing a Geotech™ peristaltic pump, YSI ™ Pro Series groundwater quality probe, and Hach™ water turbidity meter.	ENERCON Sampling Personnel:	Other Personnel:
MW93-1		Caleb Cope	

Latitude/ Longitude: N E	Depth to Free Product:	Depth to Water:	Total Depth of Well:	Screened Interval:
		10.42	15.72	10.72-15.72

Date Started: 10-4-22	Date Finished:	Pump/Tubing Inlet Depth: 13'	Well Casing Diameter: 2"
Sample Collection Time: 1615		Duplicate Sample Name:	Duplicate Collection Time:

Parameter Check Time	Discharge Rate (ml/min)	Cumulative Purge Volume (ml)	H_20 Temp. (C°)	pH	Conductivity (mS/cm)	DO (mg/L)	ORP	Turbidity (NTU)	DTW (ft)	Pump setting/adjustments/ remarks
1545	200	—	24.0	6.65	1325	.91	383.6	4.29	10.53	Slowed
1550	150	1000	24.1	6.69	1334	.37	323.1	1.99		
1555	"	1750	23.9	6.68	1338	.24	258.3	1.45	10.53	
1600	↓	1500	24.0	6.67	1344	.22	272.3	1.12		
1605		2250	23.9	6.65	1349	.23	339.2	1.07	10.53	
1610		3000	23.8	6.64	1358	.23	333.5	1.13	10.53	
									10.43	

Volume = H x conversion factor

Volume Conversion factors

2" well – 0.163 gal/ft

4" well – 0.65 gal/ft

6" well – 1.47 gal/ft

Water Quality Instrument details

YSI™ Multimeter SN: 14E100366

Scientific™ Turbidimeter SN: 202002618

Attachment D

ANALYTICAL REPORT

April 21, 2022

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

Enercon - Oklahoma City, OK

Sample Delivery Group:	L1481502
Samples Received:	04/12/2022
Project Number:	GRDA-00016
Description:	GREC, Chouteau, OK
Site:	GRDA-GREC
Report To:	Rusty Lynch 1601 Northwest Expressway Suite 1000 Oklahoma City, OK 73118

Entire Report Reviewed By:

Jason Romer
Project Manager

TABLE OF CONTENTS

SAMPLE SUMMARY

MW22-01 L1481502-01 WW

Collected by: Seth Scherm | Collected date/time: 04/07/22 13:50 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1848421	1	04/14/22 10:08	04/14/22 14:05	MMF	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1846264	1	04/14/22 08:01	04/14/22 08:01	ARD	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1848242	1	04/14/22 08:24	04/14/22 08:24	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1848386	1	04/14/22 10:32	04/14/22 10:32	LBR	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1848386	5	04/14/22 10:45	04/14/22 10:45	LBR	Mt. Juliet, TN
Mercury by Method 245.1	WG1847555	1	04/20/22 09:48	04/21/22 12:01	MRW	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1847541	1	04/13/22 20:39	04/14/22 16:48	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1847626	1	04/13/22 10:51	04/13/22 22:51	LD	Mt. Juliet, TN

MW22-02 L1481502-02 WW

Collected by: Seth Scherm | Collected date/time: 04/07/22 15:20 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1848421	1	04/14/22 10:08	04/14/22 14:05	MMF	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1846264	1	04/14/22 08:01	04/14/22 08:01	ARD	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1848242	1	04/14/22 08:27	04/14/22 08:27	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1848386	10	04/14/22 10:59	04/14/22 10:59	LBR	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1848386	100	04/14/22 11:12	04/14/22 11:12	LBR	Mt. Juliet, TN
Mercury by Method 245.1	WG1847555	1	04/20/22 09:48	04/21/22 12:03	MRW	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1847541	1	04/13/22 20:39	04/14/22 16:51	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1848733	1	04/16/22 11:28	04/18/22 11:46	SJM	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1848733	5	04/16/22 11:28	04/18/22 12:56	SJM	Mt. Juliet, TN

MW22-03 L1481502-03 WW

Collected by: Seth Scherm | Collected date/time: 04/07/22 16:30 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1848421	1	04/14/22 10:08	04/14/22 14:05	MMF	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1846264	1	04/14/22 08:01	04/14/22 08:01	ARD	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1848242	1	04/14/22 08:30	04/14/22 08:30	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1848386	1	04/14/22 11:26	04/14/22 11:26	LBR	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1848386	10	04/14/22 11:40	04/14/22 11:40	LBR	Mt. Juliet, TN
Mercury by Method 245.1	WG1847555	1	04/20/22 09:48	04/21/22 12:04	MRW	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1847541	1	04/13/22 20:39	04/14/22 16:54	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1848733	1	04/16/22 11:28	04/18/22 11:49	SJM	Mt. Juliet, TN

MW22-04 L1481502-04 WW

Collected by: Seth Scherm | Collected date/time: 04/07/22 17:50 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1848421	1	04/14/22 10:08	04/14/22 14:05	MMF	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1846264	1	04/14/22 08:01	04/14/22 08:01	ARD	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1848242	1	04/14/22 08:33	04/14/22 08:33	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1848386	1	04/14/22 11:53	04/14/22 11:53	LBR	Mt. Juliet, TN
Mercury by Method 245.1	WG1847555	1	04/20/22 09:48	04/21/22 12:12	MRW	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1847541	1	04/13/22 20:39	04/14/22 16:56	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1848733	1	04/16/22 11:28	04/18/22 11:52	SJM	Mt. Juliet, TN

SAMPLE SUMMARY

MW22-05 L1481502-05 WW

Collected by: Seth Scherm | Collected date/time: 04/07/22 18:50 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1848421	1	04/14/22 10:08	04/14/22 14:05	MMF	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1846264	1	04/14/22 08:01	04/14/22 08:01	ARD	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1848242	1	04/14/22 08:37	04/14/22 08:37	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1848386	1	04/14/22 13:15	04/14/22 13:15	LBR	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1848386	50	04/14/22 13:28	04/14/22 13:28	LBR	Mt. Juliet, TN
Mercury by Method 245.1	WG1847555	1	04/20/22 09:48	04/21/22 12:14	MRW	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1847541	1	04/13/22 20:39	04/14/22 16:59	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1848733	1	04/16/22 11:28	04/18/22 11:56	SJM	Mt. Juliet, TN

MW22-06 L1481502-06 WW

Collected by: Seth Scherm | Collected date/time: 04/08/22 08:25 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1848421	1	04/14/22 10:08	04/14/22 14:05	MMF	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1846264	1	04/14/22 08:01	04/14/22 08:01	ARD	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1848242	1	04/14/22 08:41	04/14/22 08:41	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1848386	1	04/14/22 13:42	04/14/22 13:42	LBR	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1848386	5	04/14/22 13:56	04/14/22 13:56	LBR	Mt. Juliet, TN
Mercury by Method 245.1	WG1847555	1	04/20/22 09:48	04/21/22 12:16	MRW	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1847541	1	04/13/22 20:39	04/14/22 17:08	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1848733	1	04/16/22 11:28	04/18/22 11:59	SJM	Mt. Juliet, TN

MW22-07 L1481502-07 WW

Collected by: Seth Scherm | Collected date/time: 04/08/22 13:15 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1847898	1	04/13/22 13:10	04/13/22 16:06	BRG	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1849724	1	04/17/22 08:32	04/17/22 08:32	ARD	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1848242	1	04/14/22 08:44	04/14/22 08:44	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1848386	1	04/14/22 14:09	04/14/22 14:09	LBR	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1849897	5	04/17/22 22:43	04/17/22 22:43	LBR	Mt. Juliet, TN
Mercury by Method 245.1	WG1847555	1	04/20/22 09:48	04/21/22 12:18	MRW	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1847541	1	04/13/22 20:39	04/14/22 16:08	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1848733	1	04/16/22 11:28	04/18/22 12:02	SJM	Mt. Juliet, TN

MW93-01 L1481502-08 WW

Collected by: Seth Scherm | Collected date/time: 04/08/22 14:18 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1847898	1	04/13/22 13:10	04/13/22 16:06	BRG	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1849724	1	04/17/22 08:32	04/17/22 08:32	ARD	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1848242	1	04/14/22 08:56	04/14/22 08:56	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1848386	1	04/14/22 14:23	04/14/22 14:23	LBR	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1848386	10	04/14/22 14:36	04/14/22 14:36	LBR	Mt. Juliet, TN
Mercury by Method 245.1	WG1847555	1	04/20/22 09:48	04/21/22 12:20	MRW	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1847541	1	04/13/22 20:39	04/14/22 17:10	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1848733	1	04/16/22 11:28	04/18/22 10:46	SJM	Mt. Juliet, TN

SAMPLE SUMMARY

MW93-02 L1481502-09 WW

Collected by: Seth Scherm | Collected date/time: 04/08/22 12:23 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1847898	1	04/13/22 13:10	04/13/22 16:06	BRG	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1849724	1	04/17/22 08:32	04/17/22 08:32	ARD	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1848242	1	04/14/22 08:59	04/14/22 08:59	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1848386	5	04/14/22 14:52	04/14/22 14:52	LBR	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1848386	50	04/14/22 15:33	04/14/22 15:33	LBR	Mt. Juliet, TN
Mercury by Method 245.1	WG1847555	1	04/20/22 09:48	04/21/22 12:22	MRW	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1847541	1	04/13/22 20:39	04/14/22 17:13	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1848733	1	04/16/22 11:28	04/18/22 12:06	SJM	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1848733	5	04/16/22 11:28	04/18/22 12:59	SJM	Mt. Juliet, TN

MW93-03 L1481502-10 WW

Collected by: Seth Scherm | Collected date/time: 04/08/22 11:42 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1847898	1	04/13/22 13:10	04/13/22 16:06	BRG	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1849724	1	04/17/22 08:32	04/17/22 08:32	ARD	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1848243	1	04/14/22 07:19	04/14/22 07:19	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1848386	1	04/14/22 15:47	04/14/22 15:47	LBR	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1848386	5	04/14/22 16:00	04/14/22 16:00	LBR	Mt. Juliet, TN
Mercury by Method 245.1	WG1847555	1	04/20/22 09:48	04/21/22 12:24	MRW	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1847541	1	04/13/22 20:39	04/14/22 17:16	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1848733	1	04/16/22 11:28	04/18/22 12:09	SJM	Mt. Juliet, TN

MW22-08 L1481502-11 WW

Collected by: Seth Scherm | Collected date/time: 04/08/22 11:05 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1847898	1	04/13/22 13:10	04/13/22 16:06	BRG	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1849724	1	04/17/22 08:32	04/17/22 08:32	ARD	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1848243	1	04/14/22 07:22	04/14/22 07:22	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1848386	1	04/14/22 16:14	04/14/22 16:14	LBR	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1848386	5	04/14/22 16:28	04/14/22 16:28	LBR	Mt. Juliet, TN
Mercury by Method 245.1	WG1847555	1	04/20/22 09:48	04/21/22 12:26	MRW	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1847541	1	04/13/22 20:39	04/14/22 17:19	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1848733	1	04/16/22 11:28	04/18/22 12:12	SJM	Mt. Juliet, TN

MW03-01 L1481502-12 WW

Collected by: Seth Scherm | Collected date/time: 04/08/22 09:30 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1847898	1	04/13/22 13:10	04/13/22 16:06	BRG	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1849724	1	04/17/22 08:32	04/17/22 08:32	ARD	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1848243	1	04/14/22 07:30	04/14/22 07:30	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1848386	1	04/14/22 16:41	04/14/22 16:41	LBR	Mt. Juliet, TN
Mercury by Method 245.1	WG1847555	1	04/20/22 09:48	04/21/22 12:28	MRW	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1847541	1	04/13/22 20:39	04/14/22 17:22	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1848733	1	04/16/22 11:28	04/18/22 12:15	SJM	Mt. Juliet, TN

SAMPLE SUMMARY

MW03-02 L1481502-13 WW

Collected by: Seth Scherm
Collected date/time: 04/08/22 10:25
Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1847898	1	04/13/22 13:10	04/13/22 16:06	BRG	Mt. Juliet, TN
Wet Chemistry by Method 120.1	WG1849724	1	04/17/22 08:32	04/17/22 08:32	ARD	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG1848243	1	04/14/22 07:34	04/14/22 07:34	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1848386	1	04/14/22 17:22	04/14/22 17:22	LBR	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1848386	10	04/14/22 17:36	04/14/22 17:36	LBR	Mt. Juliet, TN
Mercury by Method 245.1	WG1848286	1	04/14/22 11:25	04/15/22 09:19	ABL	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1847541	1	04/13/22 20:39	04/14/22 17:25	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 200.8	WG1848733	1	04/16/22 11:28	04/18/22 10:56	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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1230		20.0	1	04/14/2022 14:05	WG1848421

Wet Chemistry by Method 120.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	1690		10.0	1	04/14/2022 08:01	WG1846264

Sample Narrative:

L1481502-01 WG1846264: at 25C

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	637		8.45	20.0	1	04/14/2022 08:24	WG1848242

Sample Narrative:

L1481502-01 WG1848242: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	6.41		0.379	1.00	1	04/14/2022 10:32	WG1848386
Fluoride	0.112	J	0.0640	0.150	1	04/14/2022 10:32	WG1848386
Sulfate	353		2.97	25.0	5	04/14/2022 10:45	WG1848386

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	04/21/2022 12:01	WG1847555

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	0.247		0.0396	0.200	1	04/14/2022 16:48	WG1847541
Lithium	0.0370		0.00689	0.0150	1	04/14/2022 16:48	WG1847541

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony	U		0.00172	0.00500	1	04/13/2022 22:51	WG1847626
Arsenic	0.000639	J	0.000195	0.00100	1	04/13/2022 22:51	WG1847626
Barium	0.0621		0.000476	0.00500	1	04/13/2022 22:51	WG1847626
Beryllium	U		0.000201	0.00100	1	04/13/2022 22:51	WG1847626
Cadmium	0.000263	J	0.000160	0.00100	1	04/13/2022 22:51	WG1847626
Calcium	323		0.112	1.00	1	04/13/2022 22:51	WG1847626
Chromium	U		0.00560	0.0200	1	04/13/2022 22:51	WG1847626
Cobalt	0.00536		0.000142	0.00200	1	04/13/2022 22:51	WG1847626
Lead	U		0.000513	0.00200	1	04/13/2022 22:51	WG1847626
Molybdenum	0.000852	J	0.000841	0.00500	1	04/13/2022 22:51	WG1847626
Selenium	U		0.000437	0.00200	1	04/13/2022 22:51	WG1847626
Sodium	27.1		0.513	2.00	1	04/13/2022 22:51	WG1847626
Thallium	U		0.000176	0.00100	1	04/13/2022 22:51	WG1847626

SAMPLE RESULTS - 02

L1481502

MW22-02

Collected date/time: 04/07/22 15:20

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
	mg/l		mg/l			
Dissolved Solids	4530		100	1	04/14/2022 14:05	WG1848421

Wet Chemistry by Method 120.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
	umhos/cm		umhos/cm			
Specific Conductance	6290		10.0	1	04/14/2022 08:01	WG1846264

Sample Narrative:
L1481502-02 WG1846264: at 25C

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	mg/l		mg/l	mg/l			
Alkalinity	277		8.45	20.0	1	04/14/2022 08:27	WG1848242

Sample Narrative:
L1481502-02 WG1848242: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	mg/l		mg/l	mg/l			
Chloride	240		3.79	10.0	10	04/14/2022 10:59	WG1848386
Fluoride	U		0.640	1.50	10	04/14/2022 10:59	WG1848386
Sulfate	2460		59.4	500	100	04/14/2022 11:12	WG1848386

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	mg/l		mg/l	mg/l			
Mercury	U		0.000100	0.000200	1	04/21/2022 12:03	WG1847555

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	mg/l		mg/l	mg/l			
Boron	1.87		0.0396	0.200	1	04/14/2022 16:51	WG1847541
Lithium	0.0441		0.00689	0.0150	1	04/14/2022 16:51	WG1847541

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	mg/l		mg/l	mg/l			
Antimony	U		0.00172	0.00500	1	04/18/2022 11:46	WG1848733
Arsenic	0.000948	J	0.000195	0.00100	1	04/18/2022 11:46	WG1848733
Barium	0.0435		0.000476	0.00500	1	04/18/2022 11:46	WG1848733
Beryllium	U		0.000201	0.00100	1	04/18/2022 11:46	WG1848733
Cadmium	U		0.000160	0.00100	1	04/18/2022 11:46	WG1848733
Calcium	238		0.112	1.00	1	04/18/2022 11:46	WG1848733
Chromium	U		0.00560	0.0200	1	04/18/2022 11:46	WG1848733
Cobalt	0.000914	J	0.000142	0.00200	1	04/18/2022 11:46	WG1848733
Lead	U		0.000513	0.00200	1	04/18/2022 11:46	WG1848733
Molybdenum	0.113		0.000841	0.00500	1	04/18/2022 11:46	WG1848733
Selenium	0.170		0.000437	0.00200	1	04/18/2022 11:46	WG1848733
Sodium	1070		2.56	10.0	5	04/18/2022 12:56	WG1848733
Thallium	U		0.000176	0.00100	1	04/18/2022 11:46	WG1848733

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1230		25.0	1	04/14/2022 14:05	WG1848421

Wet Chemistry by Method 120.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	2400		10.0	1	04/14/2022 08:01	WG1846264

Sample Narrative:
L1481502-03 WG1846264: at 25C

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	216		8.45	20.0	1	04/14/2022 08:30	WG1848242

Sample Narrative:
L1481502-03 WG1848242: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	539		3.79	10.0	10	04/14/2022 11:40	WG1848386
Fluoride	U		0.0640	0.150	1	04/14/2022 11:26	WG1848386
Sulfate	137		5.94	50.0	10	04/14/2022 11:40	WG1848386

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	04/21/2022 12:04	WG1847555

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	0.109	J	0.0396	0.200	1	04/14/2022 16:54	WG1847541
Lithium	0.0597		0.00689	0.0150	1	04/14/2022 16:54	WG1847541

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony	U		0.00172	0.00500	1	04/18/2022 11:49	WG1848733
Arsenic	0.000730	J	0.000195	0.00100	1	04/18/2022 11:49	WG1848733
Barium	0.269		0.000476	0.00500	1	04/18/2022 11:49	WG1848733
Beryllium	U		0.000201	0.00100	1	04/18/2022 11:49	WG1848733
Cadmium	0.000341	J	0.000160	0.00100	1	04/18/2022 11:49	WG1848733
Calcium	122		0.112	1.00	1	04/18/2022 11:49	WG1848733
Chromium	U		0.00560	0.0200	1	04/18/2022 11:49	WG1848733
Cobalt	0.00620		0.000142	0.00200	1	04/18/2022 11:49	WG1848733
Lead	U		0.000513	0.00200	1	04/18/2022 11:49	WG1848733
Molybdenum	U		0.000841	0.00500	1	04/18/2022 11:49	WG1848733
Selenium	U		0.000437	0.00200	1	04/18/2022 11:49	WG1848733
Sodium	303		0.513	2.00	1	04/18/2022 11:49	WG1848733
Thallium	U		0.000176	0.00100	1	04/18/2022 11:49	WG1848733

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	322		10.0	1	04/14/2022 14:05	WG1848421

Wet Chemistry by Method 120.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	527		10.0	1	04/14/2022 08:01	WG1846264

Sample Narrative:

L1481502-04 WG1846264: at 25C

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	96.2		8.45	20.0	1	04/14/2022 08:33	WG1848242

Sample Narrative:

L1481502-04 WG1848242: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	32.3		0.379	1.00	1	04/14/2022 11:53	WG1848386
Fluoride	0.114	J	0.0640	0.150	1	04/14/2022 11:53	WG1848386
Sulfate	86.2		0.594	5.00	1	04/14/2022 11:53	WG1848386

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	04/21/2022 12:12	WG1847555

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	U		0.0396	0.200	1	04/14/2022 16:56	WG1847541
Lithium	0.0171		0.00689	0.0150	1	04/14/2022 16:56	WG1847541

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony	U		0.00172	0.00500	1	04/18/2022 11:52	WG1848733
Arsenic	0.000632	J	0.000195	0.00100	1	04/18/2022 11:52	WG1848733
Barium	0.108		0.000476	0.00500	1	04/18/2022 11:52	WG1848733
Beryllium	U		0.000201	0.00100	1	04/18/2022 11:52	WG1848733
Cadmium	U		0.000160	0.00100	1	04/18/2022 11:52	WG1848733
Calcium	59.4		0.112	1.00	1	04/18/2022 11:52	WG1848733
Chromium	U		0.00560	0.0200	1	04/18/2022 11:52	WG1848733
Cobalt	0.000256	J	0.000142	0.00200	1	04/18/2022 11:52	WG1848733
Lead	U		0.000513	0.00200	1	04/18/2022 11:52	WG1848733
Molybdenum	U		0.000841	0.00500	1	04/18/2022 11:52	WG1848733
Selenium	U		0.000437	0.00200	1	04/18/2022 11:52	WG1848733
Sodium	27.9		0.513	2.00	1	04/18/2022 11:52	WG1848733
Thallium	U		0.000176	0.00100	1	04/18/2022 11:52	WG1848733

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	2640		50.0	1	04/14/2022 14:05	WG1848421

Wet Chemistry by Method 120.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	3840		10.0	1	04/14/2022 08:01	WG1846264

Sample Narrative:
L1481502-05 WG1846264: at 25C

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	212		8.45	20.0	1	04/14/2022 08:37	WG1848242

Sample Narrative:
L1481502-05 WG1848242: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	1060		19.0	50.0	50	04/14/2022 13:28	WG1848386
Fluoride	0.122	J	0.0640	0.150	1	04/14/2022 13:15	WG1848386
Sulfate	28.1		0.594	5.00	1	04/14/2022 13:15	WG1848386

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	04/21/2022 12:14	WG1847555

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	U		0.0396	0.200	1	04/14/2022 16:59	WG1847541
Lithium	0.0330		0.00689	0.0150	1	04/14/2022 16:59	WG1847541

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony	U		0.00172	0.00500	1	04/18/2022 11:56	WG1848733
Arsenic	0.00115		0.000195	0.00100	1	04/18/2022 11:56	WG1848733
Barium	0.484		0.000476	0.00500	1	04/18/2022 11:56	WG1848733
Beryllium	U		0.000201	0.00100	1	04/18/2022 11:56	WG1848733
Cadmium	0.000395	J	0.000160	0.00100	1	04/18/2022 11:56	WG1848733
Calcium	269		0.112	1.00	1	04/18/2022 11:56	WG1848733
Chromium	U		0.00560	0.0200	1	04/18/2022 11:56	WG1848733
Cobalt	0.00755		0.000142	0.00200	1	04/18/2022 11:56	WG1848733
Lead	0.00120	J	0.000513	0.00200	1	04/18/2022 11:56	WG1848733
Molybdenum	0.000894	J	0.000841	0.00500	1	04/18/2022 11:56	WG1848733
Selenium	U		0.000437	0.00200	1	04/18/2022 11:56	WG1848733
Sodium	403		0.513	2.00	1	04/18/2022 11:56	WG1848733
Thallium	U		0.000176	0.00100	1	04/18/2022 11:56	WG1848733

SAMPLE RESULTS - 06

L1481502

MW22-06

Collected date/time: 04/08/22 08:25

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
	mg/l		mg/l			
Dissolved Solids	1030		20.0	1	04/14/2022 14:05	WG1848421

Wet Chemistry by Method 120.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
	umhos/cm		umhos/cm			
Specific Conductance	1500		10.0	1	04/14/2022 08:01	WG1846264

Sample Narrative:
L1481502-06 WG1846264: at 25C

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	mg/l		mg/l	mg/l			
Alkalinity	276		8.45	20.0	1	04/14/2022 08:41	WG1848242

Sample Narrative:
L1481502-06 WG1848242: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	mg/l		mg/l	mg/l			
Chloride	153		1.90	5.00	5	04/14/2022 13:56	WG1848386
Fluoride	0.0837	J	0.0640	0.150	1	04/14/2022 13:42	WG1848386
Sulfate	291		2.97	25.0	5	04/14/2022 13:56	WG1848386

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	mg/l		mg/l	mg/l			
Mercury	U		0.000100	0.000200	1	04/21/2022 12:16	WG1847555

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	mg/l		mg/l	mg/l			
Boron	U		0.0396	0.200	1	04/14/2022 17:08	WG1847541
Lithium	0.0284		0.00689	0.0150	1	04/14/2022 17:08	WG1847541

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	mg/l		mg/l	mg/l			
Antimony	U		0.00172	0.00500	1	04/18/2022 11:59	WG1848733
Arsenic	0.000247	J	0.000195	0.00100	1	04/18/2022 11:59	WG1848733
Barium	0.121		0.000476	0.00500	1	04/18/2022 11:59	WG1848733
Beryllium	U		0.000201	0.00100	1	04/18/2022 11:59	WG1848733
Cadmium	U		0.000160	0.00100	1	04/18/2022 11:59	WG1848733
Calcium	245		0.112	1.00	1	04/18/2022 11:59	WG1848733
Chromium	U		0.00560	0.0200	1	04/18/2022 11:59	WG1848733
Cobalt	U		0.000142	0.00200	1	04/18/2022 11:59	WG1848733
Lead	U		0.000513	0.00200	1	04/18/2022 11:59	WG1848733
Molybdenum	U		0.000841	0.00500	1	04/18/2022 11:59	WG1848733
Selenium	U		0.000437	0.00200	1	04/18/2022 11:59	WG1848733
Sodium	58.8		0.513	2.00	1	04/18/2022 11:59	WG1848733
Thallium	U		0.000176	0.00100	1	04/18/2022 11:59	WG1848733

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	519		10.0	1	04/13/2022 16:06	WG1847898

Wet Chemistry by Method 120.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	827		10.0	1	04/17/2022 08:32	WG1849724

Sample Narrative:

L1481502-07 WG1849724: at 25C

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	297		8.45	20.0	1	04/14/2022 08:44	WG1848242

Sample Narrative:

L1481502-07 WG1848242: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	5.98		0.379	1.00	1	04/14/2022 14:09	WG1848386
Fluoride	0.166		0.0640	0.150	1	04/14/2022 14:09	WG1848386
Sulfate	160		2.97	25.0	5	04/17/2022 22:43	WG1849897

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	04/21/2022 12:18	WG1847555

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	U		0.0396	0.200	1	04/14/2022 16:08	WG1847541
Lithium	0.0104	J	0.00689	0.0150	1	04/14/2022 16:08	WG1847541

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony	U		0.00172	0.00500	1	04/18/2022 12:02	WG1848733
Arsenic	0.000522	J	0.000195	0.00100	1	04/18/2022 12:02	WG1848733
Barium	0.0944		0.000476	0.00500	1	04/18/2022 12:02	WG1848733
Beryllium	U		0.000201	0.00100	1	04/18/2022 12:02	WG1848733
Cadmium	U		0.000160	0.00100	1	04/18/2022 12:02	WG1848733
Calcium	87.6		0.112	1.00	1	04/18/2022 12:02	WG1848733
Chromium	U		0.00560	0.0200	1	04/18/2022 12:02	WG1848733
Cobalt	0.000229	J	0.000142	0.00200	1	04/18/2022 12:02	WG1848733
Lead	U		0.000513	0.00200	1	04/18/2022 12:02	WG1848733
Molybdenum	U		0.000841	0.00500	1	04/18/2022 12:02	WG1848733
Selenium	0.00188	J	0.000437	0.00200	1	04/18/2022 12:02	WG1848733
Sodium	81.6		0.513	2.00	1	04/18/2022 12:02	WG1848733
Thallium	U		0.000176	0.00100	1	04/18/2022 12:02	WG1848733

MW93-01
Collected date/time: 04/08/22 14:18

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
	mg/l		mg/l			
Dissolved Solids	1130		20.0	1	04/13/2022 16:06	WG1847898

Wet Chemistry by Method 120.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
	umhos/cm		umhos/cm			
Specific Conductance	1560		10.0	1	04/17/2022 08:32	WG1849724

Sample Narrative:
L1481502-08 WG1849724: at 25C

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	mg/l		mg/l	mg/l			
Alkalinity	406		8.45	20.0	1	04/14/2022 08:56	WG1848242

Sample Narrative:
L1481502-08 WG1848242: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	mg/l		mg/l	mg/l			
Chloride	14.3		0.379	1.00	1	04/14/2022 14:23	WG1848386
Fluoride	0.194		0.0640	0.150	1	04/14/2022 14:23	WG1848386
Sulfate	452		5.94	50.0	10	04/14/2022 14:36	WG1848386

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	mg/l		mg/l	mg/l			
Mercury	U		0.000100	0.000200	1	04/21/2022 12:20	WG1847555

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	mg/l		mg/l	mg/l			
Boron	0.321		0.0396	0.200	1	04/14/2022 17:10	WG1847541
Lithium	0.0236		0.00689	0.0150	1	04/14/2022 17:10	WG1847541

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
	mg/l		mg/l	mg/l			
Antimony	U		0.00172	0.00500	1	04/18/2022 10:46	WG1848733
Arsenic	0.000291	J	0.000195	0.00100	1	04/18/2022 10:46	WG1848733
Barium	0.0199		0.000476	0.00500	1	04/18/2022 10:46	WG1848733
Beryllium	U		0.000201	0.00100	1	04/18/2022 10:46	WG1848733
Cadmium	0.000376	J	0.000160	0.00100	1	04/18/2022 10:46	WG1848733
Calcium	227		0.112	1.00	1	04/18/2022 10:46	WG1848733
Chromium	U		0.00560	0.0200	1	04/18/2022 10:46	WG1848733
Cobalt	U		0.000142	0.00200	1	04/18/2022 10:46	WG1848733
Lead	U		0.000513	0.00200	1	04/18/2022 10:46	WG1848733
Molybdenum	U		0.000841	0.00500	1	04/18/2022 10:46	WG1848733
Selenium	U		0.000437	0.00200	1	04/18/2022 10:46	WG1848733
Sodium	84.8		0.513	2.00	1	04/18/2022 10:46	WG1848733
Thallium	U		0.000176	0.00100	1	04/18/2022 10:46	WG1848733

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	10000		200	1	04/13/2022 16:06	WG1847898

Wet Chemistry by Method 120.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	13700		10.0	1	04/17/2022 08:32	WG1849724

Sample Narrative:
L1481502-09 WG1849724: at 25C

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	144		8.45	20.0	1	04/14/2022 08:59	WG1848242

Sample Narrative:
L1481502-09 WG1848242: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	1460		19.0	50.0	50	04/14/2022 15:33	WG1848386
Fluoride	0.375	J	0.320	0.750	5	04/14/2022 14:52	WG1848386
Sulfate	4920		29.7	250	50	04/14/2022 15:33	WG1848386

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	04/21/2022 12:22	WG1847555

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	1.42		0.0396	0.200	1	04/14/2022 17:13	WG1847541
Lithium	0.0304		0.00689	0.0150	1	04/14/2022 17:13	WG1847541

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony	U		0.00172	0.00500	1	04/18/2022 12:06	WG1848733
Arsenic	0.0213		0.000195	0.00100	1	04/18/2022 12:06	WG1848733
Barium	0.141		0.000476	0.00500	1	04/18/2022 12:06	WG1848733
Beryllium	U		0.000201	0.00100	1	04/18/2022 12:06	WG1848733
Cadmium	U		0.000160	0.00100	1	04/18/2022 12:06	WG1848733
Calcium	228		0.112	1.00	1	04/18/2022 12:06	WG1848733
Chromium	U		0.00560	0.0200	1	04/18/2022 12:06	WG1848733
Cobalt	U		0.000142	0.00200	1	04/18/2022 12:06	WG1848733
Lead	U		0.000513	0.00200	1	04/18/2022 12:06	WG1848733
Molybdenum	1.48		0.000841	0.00500	1	04/18/2022 12:06	WG1848733
Selenium	0.00112	J	0.000437	0.00200	1	04/18/2022 12:06	WG1848733
Sodium	2580		2.56	10.0	5	04/18/2022 12:59	WG1848733
Thallium	U		0.000176	0.00100	1	04/18/2022 12:06	WG1848733

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1300		25.0	1	04/13/2022 16:06	WG1847898

Wet Chemistry by Method 120.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	2160		10.0	1	04/17/2022 08:32	WG1849724

Sample Narrative:
L1481502-10 WG1849724: at 25C

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	590		8.45	20.0	1	04/14/2022 07:19	WG1848243

Sample Narrative:
L1481502-10 WG1848243: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	231		1.90	5.00	5	04/14/2022 16:00	WG1848386
Fluoride	0.190		0.0640	0.150	1	04/14/2022 15:47	WG1848386
Sulfate	202		2.97	25.0	5	04/14/2022 16:00	WG1848386

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	0.000945		0.000100	0.000200	1	04/21/2022 12:24	WG1847555

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	0.0765	J	0.0396	0.200	1	04/14/2022 17:16	WG1847541
Lithium	0.135		0.00689	0.0150	1	04/14/2022 17:16	WG1847541

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony	U		0.00172	0.00500	1	04/18/2022 12:09	WG1848733
Arsenic	0.000685	J	0.000195	0.00100	1	04/18/2022 12:09	WG1848733
Barium	0.0640		0.000476	0.00500	1	04/18/2022 12:09	WG1848733
Beryllium	U		0.000201	0.00100	1	04/18/2022 12:09	WG1848733
Cadmium	U		0.000160	0.00100	1	04/18/2022 12:09	WG1848733
Calcium	80.2		0.112	1.00	1	04/18/2022 12:09	WG1848733
Chromium	U		0.00560	0.0200	1	04/18/2022 12:09	WG1848733
Cobalt	U		0.000142	0.00200	1	04/18/2022 12:09	WG1848733
Lead	U		0.000513	0.00200	1	04/18/2022 12:09	WG1848733
Molybdenum	0.000858	J	0.000841	0.00500	1	04/18/2022 12:09	WG1848733
Selenium	U		0.000437	0.00200	1	04/18/2022 12:09	WG1848733
Sodium	354		0.513	2.00	1	04/18/2022 12:09	WG1848733
Thallium	U		0.000176	0.00100	1	04/18/2022 12:09	WG1848733

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1140		20.0	1	04/13/2022 16:06	WG1847898

Wet Chemistry by Method 120.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	1880		10.0	1	04/17/2022 08:32	WG1849724

Sample Narrative:
L1481502-11 WG1849724: at 25C

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	437		8.45	20.0	1	04/14/2022 07:22	WG1848243

Sample Narrative:
L1481502-11 WG1848243: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	165		1.90	5.00	5	04/14/2022 16:28	WG1848386
Fluoride	0.227		0.0640	0.150	1	04/14/2022 16:14	WG1848386
Sulfate	273		2.97	25.0	5	04/14/2022 16:28	WG1848386

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	04/21/2022 12:26	WG1847555

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	0.184	J	0.0396	0.200	1	04/14/2022 17:19	WG1847541
Lithium	0.0770		0.00689	0.0150	1	04/14/2022 17:19	WG1847541

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony	U		0.00172	0.00500	1	04/18/2022 12:12	WG1848733
Arsenic	0.000622	J	0.000195	0.00100	1	04/18/2022 12:12	WG1848733
Barium	0.104		0.000476	0.00500	1	04/18/2022 12:12	WG1848733
Beryllium	U		0.000201	0.00100	1	04/18/2022 12:12	WG1848733
Cadmium	U		0.000160	0.00100	1	04/18/2022 12:12	WG1848733
Calcium	73.3		0.112	1.00	1	04/18/2022 12:12	WG1848733
Chromium	U		0.00560	0.0200	1	04/18/2022 12:12	WG1848733
Cobalt	0.00183	J	0.000142	0.00200	1	04/18/2022 12:12	WG1848733
Lead	U		0.000513	0.00200	1	04/18/2022 12:12	WG1848733
Molybdenum	0.00224	J	0.000841	0.00500	1	04/18/2022 12:12	WG1848733
Selenium	U		0.000437	0.00200	1	04/18/2022 12:12	WG1848733
Sodium	309		0.513	2.00	1	04/18/2022 12:12	WG1848733
Thallium	U		0.000176	0.00100	1	04/18/2022 12:12	WG1848733

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	81.0		10.0	1	04/13/2022 16:06	WG1847898

Wet Chemistry by Method 120.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	2440		10.0	1	04/17/2022 08:32	WG1849724

Sample Narrative:
L1481502-12 WG1849724: at 25C

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	40.8		8.45	20.0	1	04/14/2022 07:30	WG1848243

Sample Narrative:
L1481502-12 WG1848243: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	0.942	J	0.379	1.00	1	04/14/2022 16:41	WG1848386
Fluoride	U		0.0640	0.150	1	04/14/2022 16:41	WG1848386
Sulfate	2.92	J	0.594	5.00	1	04/14/2022 16:41	WG1848386

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	04/21/2022 12:28	WG1847555

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	U		0.0396	0.200	1	04/14/2022 17:22	WG1847541
Lithium	U		0.00689	0.0150	1	04/14/2022 17:22	WG1847541

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony	U		0.00172	0.00500	1	04/18/2022 12:15	WG1848733
Arsenic	0.000455	J	0.000195	0.00100	1	04/18/2022 12:15	WG1848733
Barium	0.0301		0.000476	0.00500	1	04/18/2022 12:15	WG1848733
Beryllium	U		0.000201	0.00100	1	04/18/2022 12:15	WG1848733
Cadmium	U		0.000160	0.00100	1	04/18/2022 12:15	WG1848733
Calcium	10.8		0.112	1.00	1	04/18/2022 12:15	WG1848733
Chromium	U		0.00560	0.0200	1	04/18/2022 12:15	WG1848733
Cobalt	U		0.000142	0.00200	1	04/18/2022 12:15	WG1848733
Lead	U		0.000513	0.00200	1	04/18/2022 12:15	WG1848733
Molybdenum	U		0.000841	0.00500	1	04/18/2022 12:15	WG1848733
Selenium	U		0.000437	0.00200	1	04/18/2022 12:15	WG1848733
Sodium	9.32		0.513	2.00	1	04/18/2022 12:15	WG1848733
Thallium	U		0.000176	0.00100	1	04/18/2022 12:15	WG1848733

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1720		25.0	1	04/13/2022 16:06	WG1847898

Wet Chemistry by Method 120.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	115		10.0	1	04/17/2022 08:32	WG1849724

Sample Narrative:
L1481502-13 WG1849724: at 25C

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	230		8.45	20.0	1	04/14/2022 07:34	WG1848243

Sample Narrative:
L1481502-13 WG1848243: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	440		3.79	10.0	10	04/14/2022 17:36	WG1848386
Fluoride	0.0746	J	0.0640	0.150	1	04/14/2022 17:22	WG1848386
Sulfate	371		5.94	50.0	10	04/14/2022 17:36	WG1848386

Mercury by Method 245.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	0.00285		0.000100	0.000200	1	04/15/2022 09:19	WG1848286

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	U		0.0396	0.200	1	04/14/2022 17:25	WG1847541
Lithium	0.0346		0.00689	0.0150	1	04/14/2022 17:25	WG1847541

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony	U		0.00172	0.00500	1	04/18/2022 10:56	WG1848733
Arsenic	U		0.000195	0.00100	1	04/18/2022 10:56	WG1848733
Barium	0.0301		0.000476	0.00500	1	04/18/2022 10:56	WG1848733
Beryllium	U		0.000201	0.00100	1	04/18/2022 10:56	WG1848733
Cadmium	U		0.000160	0.00100	1	04/18/2022 10:56	WG1848733
Calcium	291		0.112	1.00	1	04/18/2022 10:56	WG1848733
Chromium	U		0.00560	0.0200	1	04/18/2022 10:56	WG1848733
Cobalt	U		0.000142	0.00200	1	04/18/2022 10:56	WG1848733
Lead	U		0.000513	0.00200	1	04/18/2022 10:56	WG1848733
Molybdenum	U		0.000841	0.00500	1	04/18/2022 10:56	WG1848733
Selenium	U		0.000437	0.00200	1	04/18/2022 10:56	WG1848733
Sodium	161		0.513	2.00	1	04/18/2022 10:56	WG1848733
Thallium	U		0.000176	0.00100	1	04/18/2022 10:56	WG1848733

Method Blank (MB)

(MB) R3781729-1 04/13/22 16:06

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

L1481136-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1481136-02 04/13/22 16:06 • (DUP) R3781729-3 04/13/22 16:06

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	774	786	1	1.54		5

L1481136-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1481136-03 04/13/22 16:06 • (DUP) R3781729-4 04/13/22 16:06

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	820	826	1	0.729		5

Laboratory Control Sample (LCS)

(LCS) R3781729-2 04/13/22 16:06

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8580	97.5	77.4-123	

Method Blank (MB)

(MB) R3782152-1 04/14/22 14:05

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

L1481889-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1481889-01 04/14/22 14:05 • (DUP) R3782152-3 04/14/22 14:05

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	775	789	1	1.87		5

Laboratory Control Sample (LCS)

(LCS) R3782152-2 04/14/22 14:05

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8540	97.0	77.4-123	

QUALITY CONTROL SUMMARY

L1481502-01,02,03,04,05,06

Method Blank (MB)

(MB) R3780862-1 04/14/22 08:01

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	U		10.0	10.0

Sample Narrative:

BLANK: at 25C

L1479373-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1479373-01 04/14/22 08:01 • (DUP) R3780862-3 04/14/22 08:01

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	1560	1550	1	0.193		20

Sample Narrative:

OS: at 25C

DUP: at 25C

L1481502-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1481502-06 04/14/22 08:01 • (DUP) R3780862-4 04/14/22 08:01

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	1500	1510	1	0.664		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R3780862-2 04/14/22 08:01

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	268	271	101	85.0-115	

Sample Narrative:

LCS: at 25C

Method Blank (MB)

(MB) R3781880-1 04/17/22 08:32

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	U		10.0	10.0

Sample Narrative:
BLANK: at 25C

L1481502-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1481502-07 04/17/22 08:32 • (DUP) R3781880-3 04/17/22 08:32

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	827	824	1	0.363		20

Sample Narrative:
OS: at 25C
DUP: at 25C

L1483088-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1483088-01 04/17/22 08:32 • (DUP) R3781880-4 04/17/22 08:32

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	2420	2430	1	0.494		20

Sample Narrative:
OS: at 25C
DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R3781880-2 04/17/22 08:32

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	268	263	98.1	85.0-115	

Sample Narrative:
LCS: at 25C

QUALITY CONTROL SUMMARY

L1481502-01,02,03,04,05,06,07,08,09

WG1848242

Wet Chemistry by Method 2320 B-2011

Method Blank (MB)

(MB) R3781286-2 04/14/22 07:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity	U		8.45	20.0

Sample Narrative:
BLANK: Endpoint pH 4.5

L1481485-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1481485-01 04/14/22 07:32 • (DUP) R3781286-3 04/14/22 07:36

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	64.8	65.6	1	1.21		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

L1481904-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1481904-01 04/14/22 09:02 • (DUP) R3781286-4 04/14/22 09:06

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	218	216	1	0.839		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R3781286-1 04/14/22 07:15

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Alkalinity	100	103	103	90.0-110	

Sample Narrative:
LCS: Endpoint pH 4.5

Method Blank (MB)

(MB) R3781289-2 04/14/22 07:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity	U		8.45	20.0

Sample Narrative:
BLANK: Endpoint pH 4.5

L1481502-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1481502-11 04/14/22 07:22 • (DUP) R3781289-3 04/14/22 07:26

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	437	441	1	0.830		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

L1481562-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1481562-01 04/14/22 08:12 • (DUP) R3781289-4 04/14/22 08:17

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	339	340	1	0.196		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R3781289-1 04/14/22 07:11

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Alkalinity	100	104	104	90.0-110	

Sample Narrative:
LCS: Endpoint pH 4.5

QUALITY CONTROL SUMMARY

L1481502-01,02,03,04,05,06,07,08,09,10,11,12,13

WG1848386

Wet Chemistry by Method 300.0

Method Blank (MB)

(MB) R3781815-1 04/14/22 09:51

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

L1481502-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1481502-04 04/14/22 11:53 • (DUP) R3781815-3 04/14/22 12:07

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
Chloride	32.3	32.2	1	0.255		20
Fluoride	0.114	0.119	1	4.89	J	20
Sulfate	86.2	85.9	1	0.422		20

L1481502-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1481502-12 04/14/22 16:41 • (DUP) R3781815-6 04/14/22 16:55

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
Chloride	0.942	0.863	1	8.72	J	20
Fluoride	U	U	1	0.000		20
Sulfate	2.92	2.83	1	3.02	J	20

Laboratory Control Sample (LCS)

(LCS) R3781815-2 04/14/22 10:05

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	mg/l	mg/l	%	%	
Chloride	40.0	36.5	91.3	90.0-110	
Fluoride	8.00	7.33	91.6	90.0-110	
Sulfate	40.0	36.7	91.7	90.0-110	

QUALITY CONTROL SUMMARY

L1481502-01,02,03,04,05,06,07,08,09,10,11,12,13

WG1848386

Wet Chemistry by Method 300.0

L1481502-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481502-04 04/14/22 11:53 • (MS) R3781815-4 04/14/22 12:48 • (MSD) R3781815-5 04/14/22 13:01

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Chloride	50.0	32.3	76.9	78.6	89.3	92.7	1	80.0-120			2.16	20
Fluoride	5.00	0.114	4.52	4.65	88.0	90.7	1	80.0-120			2.88	20
Sulfate	50.0	86.2	128	131	83.1	89.7	1	80.0-120	E	E	2.55	20

L1481502-12 Original Sample (OS) • Matrix Spike (MS)

(OS) L1481502-12 04/14/22 16:41 • (MS) R3781815-7 04/14/22 17:08

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
	mg/l	mg/l	mg/l	%		%	
Chloride	50.0	0.942	51.1	100	1	80.0-120	
Fluoride	5.00	U	4.96	99.1	1	80.0-120	
Sulfate	50.0	2.92	53.3	101	1	80.0-120	

Method Blank (MB)

(MB) R3782764-1 04/17/22 21:18

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

L1481502-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1481502-07 04/17/22 22:43 • (DUP) R3782764-3 04/17/22 22:55

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
Sulfate	160	160	5	0.0834		20

L1483298-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1483298-01 04/18/22 06:24 • (DUP) R3782764-6 04/18/22 06:36

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
Sulfate	3.33	3.31	1	0.476	J	20

Laboratory Control Sample (LCS)

(LCS) R3782764-2 04/17/22 21:30

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	mg/l	mg/l	%	%	
Sulfate	40.0	40.4	101	90.0-110	

L1482654-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482654-08 04/17/22 23:58 • (MS) R3782764-4 04/18/22 00:10 • (MSD) R3782764-5 04/18/22 00:47

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Sulfate	50.0	97.5	144	144	93.1	93.4	1	80.0-120	E	E	0.119	20

L1483298-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1483298-01 04/18/22 06:24 • (MS) R3782764-7 04/18/22 06:48

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
	mg/l	mg/l	mg/l	%		%	
Sulfate	50.0	3.33	52.9	99.1	1	80.0-120	

QUALITY CONTROL SUMMARY

L1481502-01,02,03,04,05,06,07,08,09,10,11,12

WG1847555

Mercury by Method 245.1

Method Blank (MB)

(MB) R3783658-1 04/21/22 11:35

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3783658-2 04/21/22 11:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00306	102	85.0-115	

L1481369-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481369-02 04/21/22 11:39 • (MS) R3783658-3 04/21/22 11:41 • (MSD) R3783658-4 04/21/22 11:47

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 %
Mercury	0.00300	U	0.00312	0.00304	104	101	1	70.0-130			2.54	20

L1481769-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481769-01 04/21/22 11:49 • (MS) R3783658-5 04/21/22 11:51 • (MSD) R3783658-6 04/21/22 11:53

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 %
Mercury	0.00300	U	0.00301	0.00307	100	102	1	70.0-130			1.87	20

Method Blank (MB)

(MB) R3781499-1 04/15/22 09:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3781499-2 04/15/22 09:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00305	102	85.0-115	

L1481502-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481502-13 04/15/22 09:19 • (MS) R3781499-3 04/15/22 09:21 • (MSD) R3781499-4 04/15/22 09:23

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 %
Mercury	0.00300	0.00285	0.00610	0.00601	108	105	1	70.0-130			1.41	20

Method Blank (MB)

(MB) R3781255-1 04/14/22 16:02

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0396	0.200
Lithium	U		0.00689	0.0150

Laboratory Control Sample (LCS)

(LCS) R3781255-2 04/14/22 16:05

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	0.964	96.4	85.0-115	
Lithium	1.00	0.970	97.0	85.0-115	

L1481502-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481502-07 04/14/22 16:08 • (MS) R3781255-4 04/14/22 16:13 • (MSD) R3781255-5 04/14/22 16:15

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	1.00	U	0.984	0.986	98.4	98.6	1	70.0-130			0.243	20
Lithium	1.00	0.0104	0.985	0.981	97.5	97.0	1	70.0-130			0.499	20

L1480100-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1480100-01 04/14/22 16:18 • (MS) R3781255-6 04/14/22 16:20 • (MSD) R3781255-7 04/14/22 16:23

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	1.00	0.0725	1.06	1.06	98.7	98.7	1	70.0-130			0.00708	20
Lithium	1.00	0.0177	0.987	0.981	96.9	96.3	1	70.0-130			0.644	20

QUALITY CONTROL SUMMARY

L1481502-01

WG1847626

Metals (ICPMS) by Method 200.8

Method Blank (MB)

(MB) R3780774-1 04/13/22 21:22

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Antimony	U		0.00172	0.00500
Arsenic	U		0.000195	0.00100
Barium	U		0.000476	0.00500
Beryllium	U		0.000201	0.00100
Cadmium	U		0.000160	0.00100
Calcium	U		0.112	1.00
Chromium	U		0.00560	0.0200
Cobalt	U		0.000142	0.00200
Lead	U		0.000513	0.00200
Molybdenum	U		0.000841	0.00500
Selenium	U		0.000437	0.00200
Sodium	U		0.513	2.00
Thallium	U		0.000176	0.00100

Laboratory Control Sample (LCS)

(LCS) R3780774-2 04/13/22 21:25

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	0.0500	0.0515	103	85.0-115	
Arsenic	0.0500	0.0472	94.4	85.0-115	
Barium	0.0500	0.0489	97.8	85.0-115	
Beryllium	0.0500	0.0478	95.7	85.0-115	
Cadmium	0.0500	0.0511	102	85.0-115	
Calcium	5.00	4.77	95.4	85.0-115	
Chromium	0.0500	0.0490	98.0	85.0-115	
Cobalt	0.0500	0.0486	97.2	85.0-115	
Lead	0.0500	0.0473	94.6	85.0-115	
Molybdenum	0.0500	0.0481	96.2	85.0-115	
Selenium	0.0500	0.0501	100	85.0-115	
Sodium	5.00	4.83	96.7	85.0-115	
Thallium	0.0500	0.0478	95.5	85.0-115	

QUALITY CONTROL SUMMARY

L1481502-01

WG1847626

Metals (ICPMS) by Method 200.8

L1479417-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1479417-01 04/13/22 21:28 • (MS) R3780774-4 04/13/22 21:35 • (MSD) R3780774-5 04/13/22 21:38

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 %
Antimony	0.0500	0.161	0.220	0.215	118	108	1	70.0-130			2.19	20
Arsenic	0.0500	0.000314	0.0480	0.0470	95.4	93.3	1	70.0-130			2.26	20
Barium	0.0500	0.0371	0.0887	0.0883	103	102	1	70.0-130			0.465	20
Beryllium	0.0500	U	0.0496	0.0470	99.1	94.1	1	70.0-130			5.23	20
Cadmium	0.0500	U	0.0508	0.0495	102	99.0	1	70.0-130			2.71	20
Calcium	5.00	39.4	44.5	43.6	103	83.0	1	70.0-130			2.25	20
Chromium	0.0500	U	0.0480	0.0473	95.9	94.6	1	70.0-130			1.36	20
Cobalt	0.0500	0.000253	0.0479	0.0472	95.2	93.9	1	70.0-130			1.35	20
Lead	0.0500	0.00109	0.0510	0.0471	99.7	92.0	1	70.0-130			7.84	20
Molybdenum	0.0500	U	0.0507	0.0498	101	99.6	1	70.0-130			1.84	20
Selenium	0.0500	0.00215	0.0523	0.0513	100	98.2	1	70.0-130			2.09	20
Sodium	5.00	194	200	199	117	90.8	1	70.0-130			0.657	20
Thallium	0.0500	U	0.0484	0.0457	96.7	91.5	1	70.0-130			5.58	20

L1480541-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1480541-02 04/13/22 21:41 • (MS) R3780774-6 04/13/22 21:45 • (MSD) R3780774-7 04/13/22 21:48

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 %
Antimony	0.0500	U	0.0537	0.0532	107	106	1	70.0-130			0.977	20
Arsenic	0.0500	0.0165	0.0630	0.0631	92.9	93.3	1	70.0-130			0.262	20
Barium	0.0500	0.000773	0.0531	0.0515	105	101	1	70.0-130			3.05	20
Beryllium	0.0500	U	0.0507	0.0509	101	102	1	70.0-130			0.369	20
Cadmium	0.0500	U	0.0496	0.0497	99.2	99.3	1	70.0-130			0.164	20
Calcium	5.00	0.542	5.24	5.32	93.9	95.5	1	70.0-130			1.49	20
Chromium	0.0500	U	0.0475	0.0479	95.1	95.8	1	70.0-130			0.740	20
Cobalt	0.0500	U	0.0463	0.0469	92.6	93.7	1	70.0-130			1.19	20
Lead	0.0500	0.000614	0.0485	0.0495	95.8	97.8	1	70.0-130			2.09	20
Molybdenum	0.0500	0.00737	0.0567	0.0555	98.8	96.2	1	70.0-130			2.31	20
Selenium	0.0500	U	0.0495	0.0487	98.9	97.3	1	70.0-130			1.60	20
Sodium	5.00	133	139	137	125	94.7	1	70.0-130			1.10	20
Thallium	0.0500	U	0.0484	0.0483	96.8	96.7	1	70.0-130			0.173	20

QUALITY CONTROL SUMMARY

L1481502-02,03,04,05,06,07,08,09,10,11,12,13

WG1848733

Metals (ICPMS) by Method 200.8

Method Blank (MB)

(MB) R3782139-1 04/18/22 10:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Antimony	U		0.00172	0.00500
Arsenic	U		0.000195	0.00100
Barium	U		0.000476	0.00500
Beryllium	U		0.000201	0.00100
Cadmium	U		0.000160	0.00100
Calcium	U		0.112	1.00
Chromium	U		0.00560	0.0200
Cobalt	U		0.000142	0.00200
Lead	U		0.000513	0.00200
Molybdenum	U		0.000841	0.00500
Selenium	U		0.000437	0.00200
Sodium	U		0.513	2.00
Thallium	U		0.000176	0.00100

Laboratory Control Sample (LCS)

(LCS) R3782139-2 04/18/22 10:30

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	0.0500	0.0533	107	85.0-115	
Arsenic	0.0500	0.0503	101	85.0-115	
Barium	0.0500	0.0498	99.6	85.0-115	
Beryllium	0.0500	0.0497	99.3	85.0-115	
Cadmium	0.0500	0.0516	103	85.0-115	
Calcium	5.00	4.98	99.6	85.0-115	
Chromium	0.0500	0.0511	102	85.0-115	
Cobalt	0.0500	0.0525	105	85.0-115	
Lead	0.0500	0.0501	100	85.0-115	
Molybdenum	0.0500	0.0501	100	85.0-115	
Selenium	0.0500	0.0502	100	85.0-115	
Sodium	5.00	4.97	99.4	85.0-115	
Thallium	0.0500	0.0480	96.1	85.0-115	

L1481240-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481240-01 04/18/22 10:33 • (MS) R3782139-4 04/18/22 10:40 • (MSD) R3782139-5 04/18/22 10:43

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 %
Antimony	0.0500	U	0.0546	0.0557	109	111	1	70.0-130			1.83	20
Arsenic	0.0500	0.000867	0.0501	0.0495	98.4	97.2	1	70.0-130			1.18	20
Barium	0.0500	0.271	0.318	0.322	94.2	102	1	70.0-130			1.20	20
Beryllium	0.0500	U	0.0508	0.0510	102	102	1	70.0-130			0.365	20
Cadmium	0.0500	U	0.0519	0.0517	104	103	1	70.0-130			0.444	20
Calcium	5.00	120	121	122	32.8	48.2	1	70.0-130	V	V	0.636	20
Chromium	0.0500	U	0.0503	0.0503	101	101	1	70.0-130			0.00155	20
Cobalt	0.0500	0.000150	0.0491	0.0478	97.9	95.2	1	70.0-130			2.76	20
Lead	0.0500	U	0.0499	0.0496	99.8	99.1	1	70.0-130			0.719	20
Molybdenum	0.0500	0.000969	0.0512	0.0519	101	102	1	70.0-130			1.23	20
Selenium	0.0500	U	0.0345	0.0340	68.9	68.0	1	70.0-130	J6	J6	1.39	20
Sodium	5.00	204	201	203	0.000	0.000	1	70.0-130	V	V	1.18	20
Thallium	0.0500	U	0.0471	0.0463	94.3	92.6	1	70.0-130			1.81	20

L1481502-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481502-08 04/18/22 10:46 • (MS) R3782139-6 04/18/22 10:49 • (MSD) R3782139-7 04/18/22 10:53

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 %
Antimony	0.0500	U	0.0560	0.0548	112	110	1	70.0-130			2.20	20
Arsenic	0.0500	0.000291	0.0495	0.0490	98.4	97.3	1	70.0-130			1.09	20
Barium	0.0500	0.0199	0.0736	0.0733	108	107	1	70.0-130			0.445	20
Beryllium	0.0500	U	0.0481	0.0486	96.3	97.2	1	70.0-130			0.968	20
Cadmium	0.0500	0.000376	0.0512	0.0524	102	104	1	70.0-130			2.35	20
Calcium	5.00	227	241	249	272	437	1	70.0-130	V	V	3.37	20
Chromium	0.0500	U	0.0493	0.0480	98.5	96.0	1	70.0-130			2.64	20
Cobalt	0.0500	U	0.0492	0.0484	98.3	96.8	1	70.0-130			1.56	20
Lead	0.0500	U	0.0501	0.0497	100	99.5	1	70.0-130			0.818	20
Molybdenum	0.0500	U	0.0524	0.0522	105	104	1	70.0-130			0.311	20
Selenium	0.0500	U	0.0514	0.0523	103	105	1	70.0-130			1.74	20
Sodium	5.00	84.8	92.6	95.8	156	219	1	70.0-130	V	V	3.36	20
Thallium	0.0500	U	0.0487	0.0491	97.5	98.2	1	70.0-130			0.692	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.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
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.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
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.

Chain of Custody Page 1 of 2

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 # L1481502
B239

Acctnum: ENERCOOK
Template: T206542
Prelogin: P915590
PM: 104 - Jason Romer
PB: 3/31/22 MS
Shipped Via: FedEx Ground

Company Name/Address:
Enercon - Oklahoma City, OK

1601 Northwest Expressway
Suite 1000
Oklahoma City, OK 73118

Billing Information:
Accounts Payable - Lisa Hedrick
1601 NW Expressway
Ste.1000
Oklahoma City, OK 73118

Report to: Rusty Lynch

Email To: rlynch@enercon.com;ccurrent@enercon.com

Project Description: GREC, Chouteau, OK

City/State Collected: Chouteau, OK

Please Circle: PT MT CT ET

Phone: 405-722-7693

Client Project # GRDA-00016

Lab Project # ENERCOOK-GRDA

Collected by (print): Seth Scherm

Site/Facility ID # GRDA-GREC

P.O. # GRDA-00016

Collected by (signature): Seth A. Scherm

Immediately Packed on Ice N ___ Y X

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: Standard TAT

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	ALK 125mlHDPE-NoPres	Cl, F, SO4 125mlHDPE-NoPres	RA-226,RA-228 1L-HDPE-Add HNO3	SPCON,TDS 250mlHDPE-NoPres	Tot. Rec. Metals 250mlHDPE-HNO3						Remarks	Sample # (lab only)
							Pres Chk		N2		N2							
MW 22-01	G	DW	—	4/7/22	1350	5	X	X	X	X	X							-01
MW 22-02		DW	—		1520	5	X	X	X	X	X							-02
MW 22-03		DW	—		1630	5	X	X	X	X	X							-03
MW 22-04		DW	—		1750	5	X	X	X	X	X							-04
MW 22-05		DW	—		1855	5	X	X	X	X	X							-05
MW-22-06		DW	—	4/8/22	0825	5	X	X	X	X	X							-06
MW22-07		DW	—		1315	5	X	X	X	X	X							-07
MW93-01		DW	—		1418	5	X	X	X	X	X							-08
MW 93-02		DW	—		1223	5	X	X	X	X	X							-09
MW 93-03		DW	—		1142	5	X	X	X	X	X							-10

* 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 X FedEx ___ Courier _____

Tracking # 5719 6176 0340 / 0339

Sample Receipt Checklist
COC Seal Present/Intact: ___NP X Y ___N
COC Signed/Accurate: X Y ___N
Bottles arrive intact: X Y ___N
Correct bottles used: X Y ___N
Sufficient volume sent: ___ X Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: X Y ___N
RAD Screen <0.5 mR/hr: X Y ___N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR
Seth A. Scherm	4/11/22	1800		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.2/1.6 °C Bottles Received: 65
				1.8+0=1.8
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 4/12/22 Time: 930
			Pamela Meteer	

If preservation required by Login: Date/Time

Hold:

Condition: NCF (OK)

Company Name/Address:
Enercon - Oklahoma City, OK

1601 Northwest Expressway
Suite 1000
Oklahoma Citv. OK 73118

Billing Information:
Accounts Payable - Lisa Hedrick
1601 NW Expressway
Ste.1000
Oklahoma City, OK 73118

Report to: **Rusty Lynch**

Email To: **rlynch@enercon.com;ccurrent@enercon.com**

Project Description: **GREC, Chouteau, OK**

City/State Collected: Chouteau, OK

Please Circle: PT MT CT ET

Phone: **405-722-7693**

Client Project # GRDA-00016

Lab Project # **ENERCOOK-GRDA**

Collected by (print): Seth Scherm

Site/Facility ID # GRDA-GREC

P.O. # GRDA-00016

Collected by (signature):

Immediately Packed on Ice N ___ Y X

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: Standard TAT

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	ALK 125mlHDPE-NoPres	Cl, F, SO4 125mlHDPE-NoPres	RA-226,RA-228 1L-HDPE-Add HNO3	SPCON,TDS 250mlHDPE-NoPres	Tot. Rec. Metals 250mlHDPE-HNO3	Remarks	Sample # (lab only)
MW22-08	G	DW	—	4/8/22	1105	5	X	X	X	X	X		-11
MW03-01	↓	DW	—	↓	0930	5	X	X	X	X	X		-12
MW03-02	↓	DW	—	↓	1025	5	X	X	X	X	X		-13
		DW				5	X	X	X	X	X		
		DW				5	X	X	X	X	X		

Chain of Custody Page 2 of 2

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 # L1481502

Table #

Acctnum: **ENERCOOK**

Template: **T206542**

Prelogin: **P915590**

PM: **104 - Jason Romer**

PB: 3/31/22 MS

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 (X) FedEx __Courier _____

Tracking #

Relinquished by : (Signature): Seth Scherm — Date: 4/11/22 — Time: 1600

Received by: (Signature)

Relinquished by : (Signature) — Date: — Time:

Received by: (Signature)

Relinquished by : (Signature) — Date: — Time:

Received for lab by: (Signature) — Date: 4/12/22 — Time: 930

Trip Blank Received: (Yes) / No — HCl / MeoH — TBR

Temp: DR 1.6 °C — CF 1.8+0=1.8 — Bottles Received: 65

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

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

ANALYTICAL REPORT

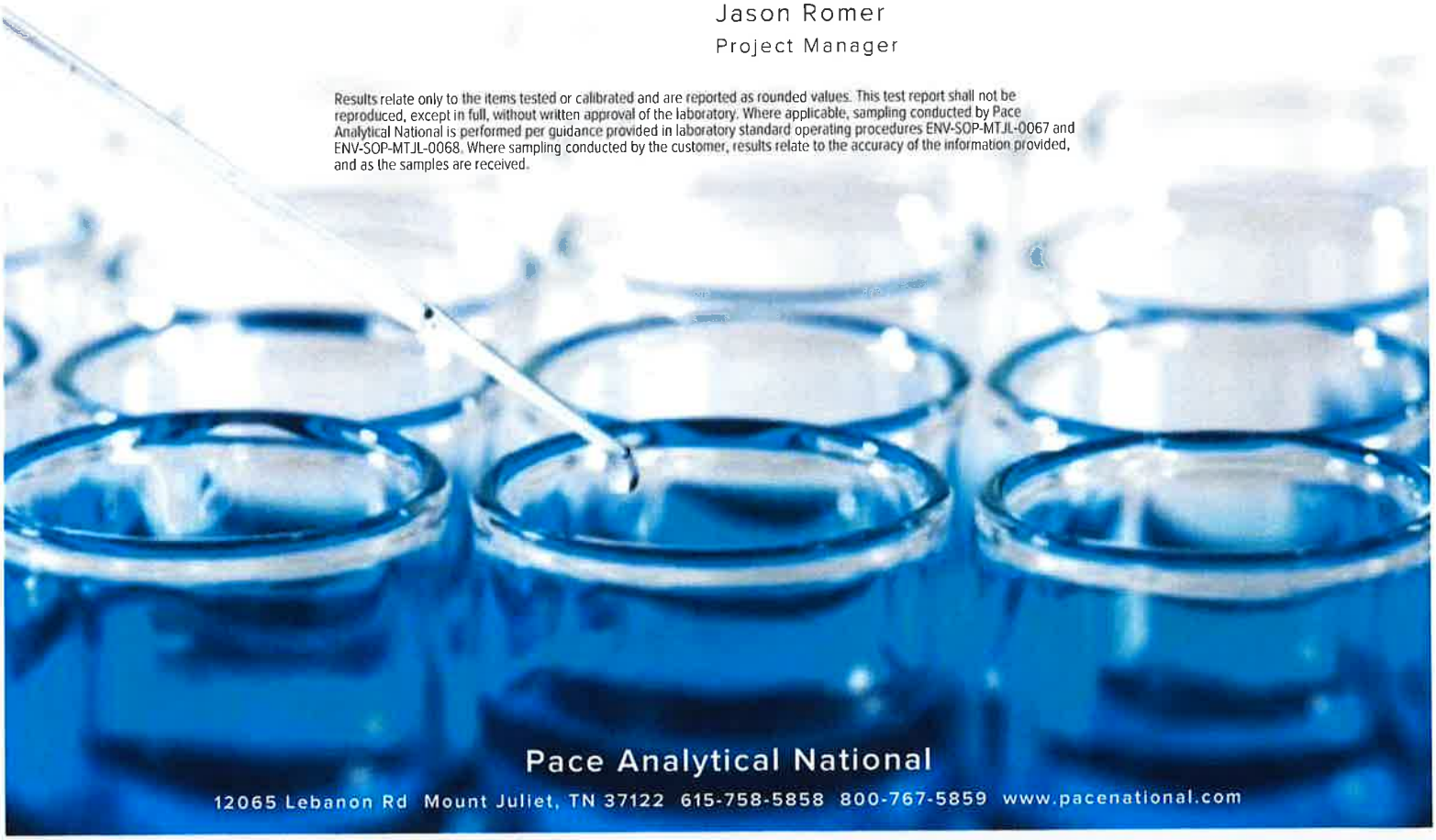
May 17, 2022

Enercon - Oklahoma City, OK

Sample Delivery Group:	L1481504
Samples Received:	04/12/2022
Project Number:	GRDA-00016
Description:	GREC, Chouteau, OK
Site:	GRDA-GREC
Report To:	Rusty Lynch 1601 Northwest Expressway Suite 1000 Oklahoma City, OK 73118

Entire Report Reviewed By:

Jason Romer
Project Manager



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SAMPLE SUMMARY

MW22-01 L1481504-01 DW

Collected by: Seth Scherm | Collected date/time: 04/07/22 13:50 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1857309	1	05/03/22 13:30	05/06/22 15:02	SWM	Mt. Juliet, TN
Radiochemistry by Method SM 7500 Ra B	WG1850448	1	04/25/22 11:17	04/28/22 19:40	SNR	Mt. Juliet, TN

MW22-02 L1481504-02 DW

Collected by: Seth Scherm | Collected date/time: 04/07/22 15:20 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1857309	1	05/03/22 13:30	05/06/22 15:02	SWM	Mt. Juliet, TN
Radiochemistry by Method SM 7500 Ra B	WG1850448	1	04/25/22 11:17	04/28/22 19:40	SNR	Mt. Juliet, TN

MW22-03 L1481504-03 DW

Collected by: Seth Scherm | Collected date/time: 04/07/22 16:30 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1857309	1	05/03/22 13:30	05/06/22 15:02	SWM	Mt. Juliet, TN
Radiochemistry by Method SM 7500 Ra B	WG1850448	1	04/25/22 11:17	04/28/22 19:40	SNR	Mt. Juliet, TN

MW22-04 L1481504-04 DW

Collected by: Seth Scherm | Collected date/time: 04/07/22 17:50 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1857309	1	05/03/22 13:30	05/06/22 15:02	SWM	Mt. Juliet, TN
Radiochemistry by Method SM 7500 Ra B	WG1850448	1	04/25/22 11:17	04/28/22 19:40	SNR	Mt. Juliet, TN

MW22-05 L1481504-05 DW

Collected by: Seth Scherm | Collected date/time: 04/07/22 18:55 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1857309	1	05/03/22 13:30	05/06/22 15:02	SWM	Mt. Juliet, TN
Radiochemistry by Method SM 7500 Ra B	WG1850448	1	04/25/22 11:17	04/28/22 20:10	SNR	Mt. Juliet, TN

MW22-06 L1481504-06 DW

Collected by: Seth Scherm | Collected date/time: 04/08/22 08:25 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1857309	1	05/03/22 13:30	05/06/22 15:02	SWM	Mt. Juliet, TN
Radiochemistry by Method SM 7500 Ra B	WG1850448	1	04/25/22 11:17	04/28/22 20:10	SNR	Mt. Juliet, TN

MW22-07 L1481504-07 DW

Collected by: Seth Scherm | Collected date/time: 04/08/22 13:15 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1857309	1	05/02/22 16:42	05/06/22 15:02	SWM	Mt. Juliet, TN
Radiochemistry by Method SM 7500 Ra B	WG1850448	1	04/25/22 11:17	04/28/22 20:10	SNR	Mt. Juliet, TN

SAMPLE SUMMARY

MW93-01 L1481504-08 DW

Collected by: Seth Scherm | Collected date/time: 04/08/22 14:18 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1857309	1	05/02/22 16:42	05/06/22 15:02	SWM	Mt. Juliet, TN
Radiochemistry by Method SM 7500 Ra B	WG1850448	1	04/25/22 11:17	04/28/22 20:10	SNR	Mt. Juliet, TN

MW93-02 L1481504-09 DW

Collected by: Seth Scherm | Collected date/time: 04/08/22 12:23 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1857309	1	05/02/22 16:42	05/09/22 11:24	SWM	Mt. Juliet, TN
Radiochemistry by Method SM 7500 Ra B	WG1850448	1	04/25/22 11:17	04/28/22 20:41	SNR	Mt. Juliet, TN

MW93-03 L1481504-10 DW

Collected by: Seth Scherm | Collected date/time: 04/08/22 11:42 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1857309	1	05/02/22 16:42	05/09/22 11:24	SWM	Mt. Juliet, TN
Radiochemistry by Method SM 7500 Ra B	WG1850448	1	04/25/22 11:17	04/28/22 20:41	SNR	Mt. Juliet, TN

MW22-08 L1481504-11 DW

Collected by: Seth Scherm | Collected date/time: 04/08/22 11:05 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1857309	1	05/02/22 16:42	05/09/22 11:24	SWM	Mt. Juliet, TN
Radiochemistry by Method SM 7500 Ra B	WG1850448	1	04/25/22 11:17	04/28/22 20:41	SNR	Mt. Juliet, TN

MW03-01 L1481504-12 DW

Collected by: Seth Scherm | Collected date/time: 04/08/22 09:30 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1858571	1	05/04/22 17:49	05/09/22 11:24	SWM	Mt. Juliet, TN
Radiochemistry by Method SM 7500 Ra B	WG1850448	1	04/25/22 11:17	04/28/22 20:41	SNR	Mt. Juliet, TN

MW03-02 L1481504-13 DW

Collected by: Seth Scherm | Collected date/time: 04/08/22 10:25 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1858571	1	05/04/22 17:49	05/09/22 11:24	SWM	Mt. Juliet, TN
Radiochemistry by Method SM 7500 Ra B	WG1850448	1	04/25/22 11:17	04/28/22 21:11	SNR	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 radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. 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

Radiochemistry by Method 904

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.515	U	0.340	0.601	05/06/2022 15:02	WG1857309
(T) Barium	*87.7*			*62.0-143*	*05/06/2022 15:02*	WG1857309
(T) Yttrium	*102*			*79.0-136*	*05/06/2022 15:02*	WG1857309

Radiochemistry by Method SM 7500 Ra B

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.135		0.279	0.360	04/28/2022 19:40	WG1850448
(T) Barium	*114*			*63.0-143*	*04/28/2022 19:40*	WG1850448

Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.822		0.283	0.486	05/06/2022 15:02	WG1857309
(T) Barium	*105*			*62.0-143*	*05/06/2022 15:02*	WG1857309
(T) Yttrium	*104*			*79.0-136*	*05/06/2022 15:02*	WG1857309

Radiochemistry by Method SM 7500 Ra B

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.316		0.451	0.490	04/28/2022 19:40	WG1850448
(T) Barium	*132*			*63.0-143*	*04/28/2022 19:40*	WG1850448

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

Radiochemistry by Method 904

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.451	U	0.358	0.633	05/06/2022 15:02	WG1857309
(T) Barium	*87.2*			*62.0-143*	*05/06/2022 15:02*	WG1857309
(T) Yttrium	*107*			*79.0-136*	*05/06/2022 15:02*	WG1857309

Radiochemistry by Method SM 7500 Ra B

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.315		0.374	0.350	04/28/2022 19:40	WG1850448
(T) Barium	*119*			*63.0-143*	*04/28/2022 19:40*	WG1850448

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.579	U	0.344	0.607	05/06/2022 15:02	WG1857309
(T) Barium	*99.3*			*62.0-143*	*05/06/2022 15:02*	WG1857309
(T) Yttrium	*99.9*			*79.0-136*	*05/06/2022 15:02*	WG1857309

Radiochemistry by Method SM 7500 Ra B

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.223		0.410	0.486	04/28/2022 19:40	WG1850448
(T) Barium	*132*			*63.0-143*	*04/28/2022 19:40*	WG1850448

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.390	U	0.297	0.525	05/06/2022 15:02	WG1857309
(T) Barium	*100*			*62.0-143*	*05/06/2022 15:02*	WG1857309
(T) Yttrium	*105*			*79.0-136*	*05/06/2022 15:02*	WG1857309

Radiochemistry by Method SM 7500 Ra B

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.674		0.513	0.386	04/28/2022 20:10	WG1850448
(T) Barium	*103*			*63.0-143*	*04/28/2022 20:10*	WG1850448

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

Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.72		0.314	0.508	05/06/2022 15:02	WG1857309
(T) Barium	*91.5*			*62.0-143*	*05/06/2022 15:02*	WG1857309
(T) Yttrium	*99.4*			*79.0-136*	*05/06/2022 15:02*	WG1857309

Radiochemistry by Method SM 7500 Ra B

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.225		0.413	0.516	04/28/2022 20:10	WG1850448
(T) Barium	*123*			*63.0-143*	*04/28/2022 20:10*	WG1850448

Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.33		0.263	0.427	05/06/2022 15:02	WG1857309
(T) Barium	*96.3*			*62.0-143*	*05/06/2022 15:02*	WG1857309
(T) Yttrium	*107*			*79.0-136*	*05/06/2022 15:02*	WG1857309

Radiochemistry by Method SM 7500 Ra B

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.314		0.373	0.331	04/28/2022 20:10	WG1850448
(T) Barium	*128*			*63.0-143*	*04/28/2022 20:10*	WG1850448

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

Radiochemistry by Method 904

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.303	U	0.319	0.593	05/06/2022 15:02	WG1857309
(T) Barium	*85.1*			*62.0-143*	*05/06/2022 15:02*	WG1857309
(T) Yttrium	*106*			*79.0-136*	*05/06/2022 15:02*	WG1857309

Radiochemistry by Method SM 7500 Ra B

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	-0.133		0.213	0.508	04/28/2022 20:10	WG1850448
(T) Barium	*124*			*63.0-143*	*04/28/2022 20:10*	WG1850448

Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	3.56		0.347	0.506	05/09/2022 11:24	WG1857309
(T) Barium	*110*			*62.0-143*	*05/09/2022 11:24*	WG1857309
(T) Yttrium	*93.6*			*79.0-136*	*05/09/2022 11:24*	WG1857309

Radiochemistry by Method SM 7500 Ra B

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	1.21		0.668	0.352	04/28/2022 20:41	WG1850448
(T) Barium	*117*			*63.0-143*	*04/28/2022 20:41*	WG1850448

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

Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.555		0.304	0.533	05/09/2022 11:24	WG1857309
(T) Barium	*90.0*			*62.0-143*	*05/09/2022 11:24*	WG1857309
(T) Yttrium	*102*			*79.0-136*	*05/09/2022 11:24*	WG1857309

Radiochemistry by Method SM 7500 Ra B

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	-0.0448	U	0.277	0.540	04/28/2022 20:41	WG1850448
(T) Barium	*116*			*63.0-143*	*04/28/2022 20:41*	WG1850448

Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.862		0.383	0.666	05/09/2022 11:24	WG1857309
(T) Barium	*84.3*			*62.0-143*	*05/09/2022 11:24*	WG1857309
(T) Yttrium	*102*			*79.0-136*	*05/09/2022 11:24*	WG1857309

Radiochemistry by Method SM 7500 Ra B

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.313		0.371	0.349	04/28/2022 20:41	WG1850448
(T) Barium	*118*			*63.0-143*	*04/28/2022 20:41*	WG1850448

Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.900		0.291	0.496	05/09/2022 11:24	WG1858571
(T) Barium	*113*			*62.0-143*	*05/09/2022 11:24*	WG1858571
(T) Yttrium	*100*			*79.0-136*	*05/09/2022 11:24*	WG1858571

Radiochemistry by Method SM 7500 Ra B

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.133		0.368	0.553	04/28/2022 20:41	WG1850448
(T) Barium	*111*			*63.0-143*	*04/28/2022 20:41*	WG1850448

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

Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.687		0.317	0.551	05/09/2022 11:24	WG1858571
(T) Barium	*95.5*			*62.0-143*	*05/09/2022 11:24*	WG1858571
(T) Yttrium	*93.7*			*79.0-136*	*05/09/2022 11:24*	WG1858571

Radiochemistry by Method SM 7500 Ra B

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	1.65		0.771	0.342	04/28/2022 21:11	WG1850448
(T) Barium	*121*			*63.0-143*	*04/28/2022 21:11*	WG1850448

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

Method Blank (MB)

(MB) R3790491-1 05/06/22 15:02

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty +/- pCi/l	MB MDA pCi/l
Radium-228	-0.409	U	0.238	0.442
(T) Barium	*105*		*105*	
(T) Yttrium	*102*		*102*	

L1481477-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1481477-12 05/06/22 15:02 • (DUP) R3790491-5 05/06/22 15:02

Analyte	Original Result pCi/l	Original Uncertainty +/-	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty +/-	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.729	0.321	0.581	2.41	0.946	0.581	1	107	1.68		20	2
(T) Barium	*103*			*104*	*104*							
(T) Yttrium	*95.0*			*97.7*	*97.7*							

Laboratory Control Sample (LCS)

(LCS) R3790491-2 05/06/22 15:02

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.67	113	80.0-120	
(T) Barium			*101*		
(T) Yttrium			*110*		

L1481477-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481477-13 05/06/22 15:02 • (MS) R3790491-3 05/06/22 15:02 • (MSD) R3790491-4 05/06/22 15:02

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	-0.325	19.6	19.7	117	118	1	70.0-130			0.458		20
(T) Barium		*104*			*106*	*102*							
(T) Yttrium		*98.7*			*105*	*108*							

QUALITY CONTROL SUMMARY

L1481504-12,13

Method Blank (MB)

(MB) R3792431-1 05/09/22 11:24

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-228	-0.0799	U	0.228	0.417
(T) Barium	*115*		*115*	
(T) Yttrium	*105*		*105*	

L1482890-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1482890-04 05/09/22 11:24 • (DUP) R3792431-2 05/09/22 11:24

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.502	0.296	0.539	0.650	1.02	0.539	1	25.6	0.139	U	20	2
(T) Barium	*111*			*113*	*113*							
(T) Yttrium	*111*			*93.2*	*93.2*							

Laboratory Control Sample (LCS)

(LCS) R3792431-3 05/16/22 12:16

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.00	99.9	80.0-120	
(T) Barium			*114*		
(T) Yttrium			*102*		

L1482890-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482890-06 05/09/22 11:24 • (MS) R3792431-4 05/16/22 12:16 • (MSD) R3792431-5 05/16/22 12:16

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	6.32	14.7	13.5	84.2	71.8	1	70.0-130			8.78		20
(T) Barium		*108*			*108*	*95.6*							
(T) Yttrium		*101*			*93.7*	*111*							

Method Blank (MB)

(MB) R3786827-1 04/28/22 18:39

Analyte	MB Result	MB Qualifier	MB Uncertainty	MB MDA
	pCi/l		+ / -	pCi/l
Radium-226	0.0354		0.0980	0.234
(T) Barium	*95.3*		*95.3*	

L1483320-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1483320-01 04/28/22 21:11 • (DUP) R3786827-5 04/28/22 19:10

Analyte	Original Result	Original Uncertainty	Original MDA	DUP Result	DUP Uncertainty	DUP MDA	Dilution	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
	pCi/l	+ / -	pCi/l	pCi/l	+ / -	pCi/l		%			%	
Radium-226	0.321	0.381	0.401	0.526	0.547	0.401	1	48.5	0.308		20	2
(T) Barium	*97.1*			*93.5*	*93.5*							

Laboratory Control Sample (LCS)

(LCS) R3786827-2 04/28/22 19:10

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
Radium-226	5.01	5.08	101	90.0-110	
(T) Barium			*89.2*		

L1482879-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482879-01 04/28/22 21:11 • (MS) R3786827-3 04/28/22 19:10 • (MSD) R3786827-4 04/28/22 19:10

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	MS RER	RPD Limits
	pCi/l	pCi/l	pCi/l	pCi/l	%	%		%			%		%
Radium-226	20.0	0.867	22.7	23.8	109	114	1	80.0-120			4.43		20
(T) Barium		*97.7*			*94.2*	*87.3*							

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

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
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
U	Below Detectable Limits: Indicates that the analyte was not detected.

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.

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

ACCOUNT:

PROJECT:

SDG:

Company Name/Address:
Enercon - Oklahoma City, OK

1601 Northwest Expressway
Suite 1000
Oklahoma City. OK 73118

Billing Information:
Accounts Payable - Lisa Hedrick
1601 NW Expressway
Ste.1000
Oklahoma City, OK 73118

Report to: Rusty Lynch

Email To: rlynch@enercon.com;ccurrent@enercon.com

Project Description: GREC, Chouteau, OK

City/State Collected: Chouteau, OK

Please Circle: PT MT (CT) ET

Phone: 405-722-7693

Client Project # GRDA-00016

Lab Project # ENERCOOK-GRDA

Collected by (print): Seth Scherm

Site/Facility ID # GRDA-GREC

P.O. # GRDA-00016

Collected by (signature):

Immediately Packed on Ice N ___ Y X

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: Standard TAT

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	ALK 125mlHDPE-NoPres	Cl, F, SO4 125mlHDPE-NoPres	RA-226,RA-228 1L-HDPE-Add HNO3	SPCON,TDS 250mlHDPE-NoPres	Tot. Rec. Metals 250mlHDPE-HNO3	Remarks	Sample # (lab only)
MW 22-01	G	DW	—	4/7/22	1350	5	X	X	X	X	X		-01
MW 22-02		DW	—		1520	5	X	X	X	X	X		-02
MW 22-03		DW	—		1630	5	X	X	X	X	X		-03
MW 22-04		DW	—		1750	5	X	X	X	X	X		-04
MW 22-05		DW	—	↓	1855	5	X	X	X	X	X		-05
MW-22-06		DW	—	4/8/22	0825	5	X	X	X	X	X		-06
MW22-07		DW	—		1315	5	X	X	X	X	X		-07
MW93-01		DW	—		1418	5	X	X	X	X	X		-08
MW93-02		DW	—		1223	5	X	X	X	X	X		-09
MW 93-03	↓	DW	—	↓	1142	5	X	X	X	X	X		-10

Chain of Custody Page 1 of 1

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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 # L1481504
B239

Acctnum: ENERCOOK
Template: T206542
Prelogin: P915590
PM: 104 - Jason Romer
PB: 3/31/22 MW
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 (X) FedEX __ Courier _____

Tracking # 5719 6176 0340 / 0339

Relinquished by : (Signature) — Date: 4/11/22 — Time: 1800

Received by: (Signature)

Trip Blank Received: (Yes) / No — HCl / MeoH — TBR

Relinquished by : (Signature) — Date: — Time:

Received by: (Signature)

Temp: 2.6 °C — Bottles Received: 65

If preservation required by Login: Date/Time

Relinquished by : (Signature) — Date: — Time:

Received for lab by: (Signature)

Date: 4/12/22 — Time: 930

Hold:

Condition: NCF (OK)

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

Company Name/Address:
Enercon - Oklahoma City, OK

1601 Northwest Expressway
Suite 1000
Oklahoma City, OK 73118

Billing Information:
Accounts Payable - Lisa Hedrick
1601 NW Expressway
Ste.1000
Oklahoma City, OK 73118

Pres Chk

Report to: Rusty Lynch

Email To: rlynch@enercon.com;ccurrent@enercon.com

Project Description: GREC, Chouteau, OK

City/State Collected: Chouteau, OK

Please Circle: PT MT CT ET

Phone: 405-722-7693

Client Project # GRDA-00016

Lab Project # ENERCOOK-GRDA

Collected by (print): Seth Scherm

Site/Facility ID # GRDA-GREC

P.O. # GRDA-00016

Collected by (signature): Seth Scherm

Immediately Packed on Ice N ___ Y X

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: Standard TAT

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	ALK 125mlHDPE-NoPres	Cl, F, SO4 125mlHDPE-NoPres	RA-226,RA-228 1L-HDPE-Add HNO3	SPCON,TDS 250mlHDPE-NoPres	Tot. Rec. Metals 250mlHDPE-HNO3	Remarks	Sample # (lab only)
MW22-08	G	DW	—	4/8/22	1105	5	X	X	X	X	X		-11
MW03-01	↓	DW	—	↓	0930	5	X	X	X	X	X		-12
MW03-02	↓	DW	—	↓	1025	5	X	X	X	X	X		-13
		DW				5	X	X	X	X	X		
		DW				5	X	X	X	X	X		

Chain of Custody Page 1 of 1

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 # L1481504

Table #

Acctnum: ENERCOOK
Template: T206542
Prelogin: P915590
PM: 104 - Jason Romer
PB: 3/31/22 mw

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 (X) FedEx __ Courier _____

Tracking #

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)	Trip Blank Received: (Yes) / No / HCl / MeoH / TBR	If preservation required by Login: Date/Time
Seth Scherm	4/11/22	1600		1	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: DRAG °C 1.8+0=1.8	Bottles Received: 65	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 4/12/22	Time: 930	Hold:	Condition: NCF / (OK)

Attachment B
Statistical Output

2022 Annual Groundwater Monitoring and Assessment of Corrective Measures

January 31, 2023

Attachment B – Statistical Output

This attachment will be provided electronically. In printed version, it is over 700 pages.