ANALYTICAL REPORT

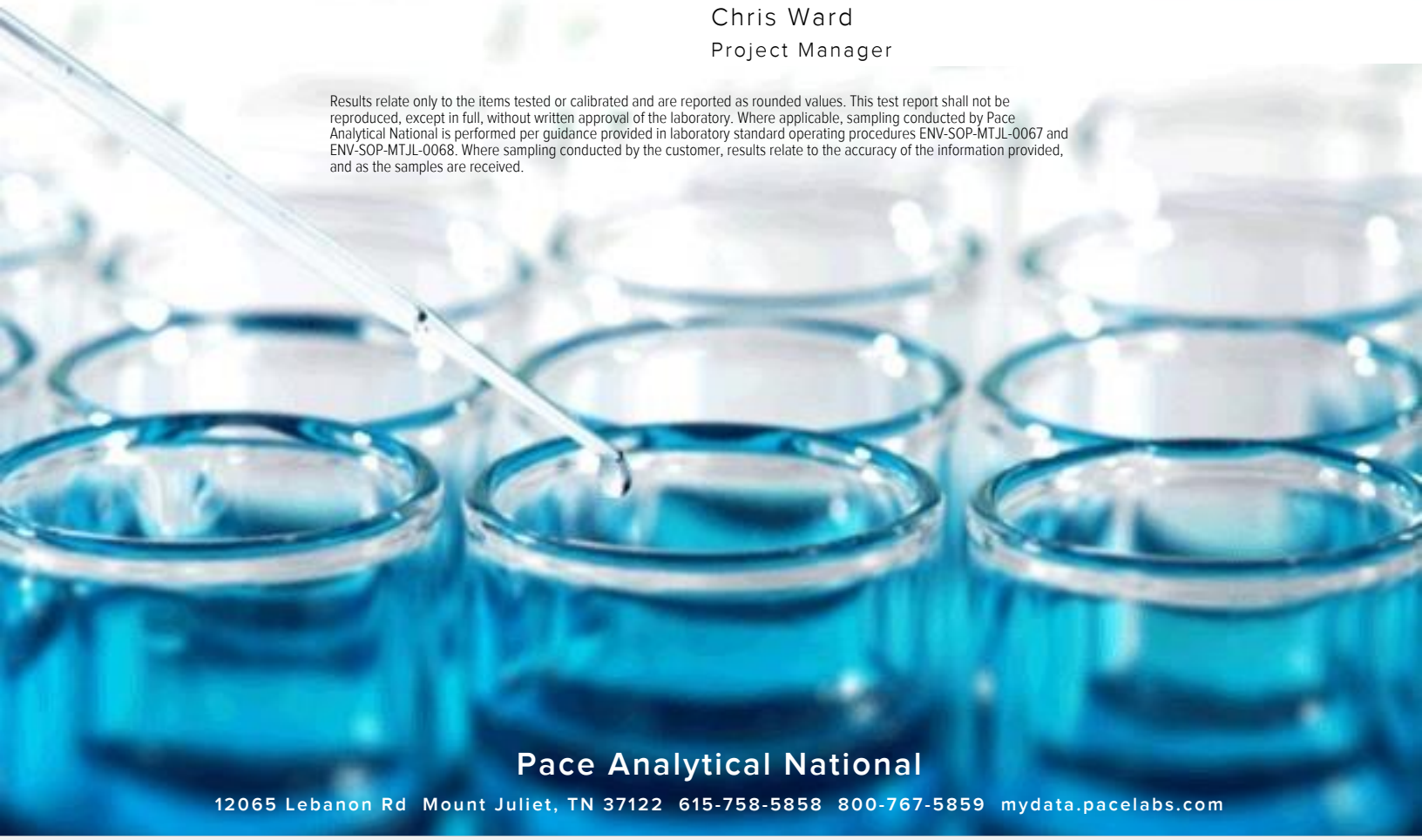
November 08, 2024

Terra Energy Partners

Sample Delivery Group:	L1792039
Samples Received:	10/24/2024
Project Number:	
Description:	PA 34-24
Site:	05-045-23894
Report To:	Mike G. / Kris R. / Bruce S. 743 Horizon Ct. Suite 330 Grand Junction, CO 81506

Entire Report Reviewed By: Chris Ward

Chris Ward
Project Manager



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

TABLE OF CONTENTS

NAUGLE 67992-F L1792039-01 GW

Collected by: Thomas Prichard | Collected date/time: 10/23/24 10:00 | Received date/time: 10/24/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Microbiology by Method BART	WG2388975	1	11/03/24 09:56	11/03/24 09:56	EAO	Mt. Juliet, TN
Microbiology by Method BART	WG2388975	1	11/08/24 07:24	11/08/24 07:24	EAO	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2388700	1	10/24/24 13:13	10/24/24 16:40	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2388657	1	10/24/24 14:19	10/24/24 14:19	BJM	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2390531	1	10/27/24 21:27	10/27/24 21:27	RTW	Mt. Juliet, TN
Wet Chemistry by Method 365.4	WG2389483	1	10/24/24 21:13	10/25/24 11:30	LDT	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2389046	1	10/25/24 16:00	10/25/24 16:00	BRT	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2389601	1	10/25/24 16:30	10/25/24 16:30	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2388539	20	10/24/24 19:34	10/24/24 19:34	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2388539	5	10/24/24 19:21	10/24/24 19:21	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2391364	1	10/30/24 12:43	10/30/24 23:02	MAP	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2391364	5	10/30/24 12:43	10/31/24 05:43	JTM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2391158	1	10/29/24 03:46	10/29/24 03:46	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2388998	1	10/27/24 09:32	10/27/24 09:32	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2391166	1	10/29/24 06:35	10/29/24 06:35	DYW	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2392742	1	10/31/24 08:17	11/02/24 14:36	TJD	Mt. Juliet, TN

NAUGLE 202848 L1792039-02 GW

Collected by: Thomas Prichard | Collected date/time: 10/23/24 10:50 | Received date/time: 10/24/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Microbiology by Method BART	WG2388975	1	11/03/24 09:56	11/03/24 09:56	EAO	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2388700	1	10/24/24 13:13	10/24/24 16:40	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2388657	1	10/24/24 14:23	10/24/24 14:23	BJM	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2390531	10	10/27/24 21:29	10/27/24 21:29	RTW	Mt. Juliet, TN
Wet Chemistry by Method 365.4	WG2389483	1	10/24/24 21:13	10/25/24 11:33	LDT	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2389046	1	10/25/24 16:00	10/25/24 16:00	BRT	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2389601	1	10/25/24 16:30	10/25/24 16:30	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2388539	20	10/24/24 19:59	10/24/24 19:59	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2388539	5	10/24/24 19:47	10/24/24 19:47	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2391364	1	10/30/24 12:43	10/30/24 23:04	MAP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2391179	1	10/29/24 17:04	10/29/24 17:04	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2388998	1	10/27/24 09:35	10/27/24 09:35	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2391166	1	10/29/24 06:56	10/29/24 06:56	DYW	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2392742	1	10/31/24 08:17	11/02/24 14:56	TJD	Mt. Juliet, TN

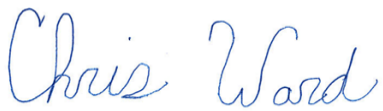
TRIP BLANK L1792039-03 GW

Collected by: Thomas Prichard | Collected date/time: 10/23/24 00:00 | Received date/time: 10/24/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2391176	1	10/29/24 02:18	10/29/24 02:18	DYW	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.



Chris Ward
Project Manager

Project Narrative

The following reactions were observed on one or more samples within this SDG.

BR Brown Ring
CL Cloudy Growth
FO Foam
BB Blackened Base
SR Slime Ring around Ball
PB Pale Blue Glow in UV Light

Sample Delivery Group (SDG) Narrative

Analysis was filtered in the laboratory.

Lab Sample ID	Project Sample ID	Method
L1792039-01	NAUGLE 67992-F	6010B
L1792039-02	NAUGLE 202848	6010B

Microbiology by Method BART

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Iron Related Bacteria	Present		1	11/03/2024 09:56	WG2388975
Slime Forming Bacteria	Present		1	11/03/2024 09:56	WG2388975
Sulfate Reducing Bacteria	Present		1	11/08/2024 07:24	WG2388975

Sample Narrative:

L1792039-01 WG2388975: IRB Approximate Population= 9,000 CFU/mL. Reactions= FO/BR.
L1792039-01 WG2388975: SLYM Approximate Population=67,000 CFU/mL. Reactions= PB/SR/CL.
L1792039-01 WG2388975: SRB Approximate Population=<1 CFU/mL. Reactions=BB.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5500		100	1	10/24/2024 16:40	WG2388700

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	416		8.45	20.0	1	10/24/2024 14:19	WG2388657
Alkalinity,Bicarbonate	416		8.45	20.0	1	10/24/2024 14:19	WG2388657
Alkalinity,Carbonate	U		8.45	20.0	1	10/24/2024 14:19	WG2388657
Alkalinity,Hydroxide	U		8.45	20.0	1	10/24/2024 14:19	WG2388657

Sample Narrative:

L1792039-01 WG2388657: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	4.97		0.0500	0.100	1	10/27/2024 21:27	WG2390531

Wet Chemistry by Method 365.4

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Phosphorus,Total	0.0659	B J	0.0350	0.100	1	10/25/2024 11:30	WG2389483

Wet Chemistry by Method 9040C

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.33	T8	1	10/25/2024 16:00	WG2389046

Sample Narrative:

L1792039-01 WG2389046: 7.33 at 20.3C

Wet Chemistry by Method 9050A

Analyte	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	7180	umhos/cm		10.0	1	10/25/2024 16:30	WG2389601

Sample Narrative:

L1792039-01 WG2389601: at 25C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Bromide	3.62	J	3.40	5.00	5	10/24/2024 19:21	WG2388539
Chloride	821		2.74	5.00	5	10/24/2024 19:21	WG2388539
Fluoride	U		0.380	0.750	5	10/24/2024 19:21	WG2388539
Nitrate as (N)	18.1		0.442	0.500	5	10/24/2024 19:21	WG2388539
Nitrite as (N)	U		0.397	0.500	5	10/24/2024 19:21	WG2388539
Sulfate	2350		12.7	100	20	10/24/2024 19:34	WG2388539

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Barium,Dissolved	0.0133		0.000736	0.00500	1	10/30/2024 23:02	WG2391364
Boron,Dissolved	0.139	J	0.0200	0.200	1	10/30/2024 23:02	WG2391364
Calcium,Dissolved	495		0.0793	1.00	1	10/30/2024 23:02	WG2391364
Iron,Dissolved	U		0.0180	0.100	1	10/30/2024 23:02	WG2391364
Magnesium,Dissolved	228		0.0853	1.00	1	10/30/2024 23:02	WG2391364
Manganese,Dissolved	0.0377		0.000934	0.0100	1	10/30/2024 23:02	WG2391364
Potassium,Dissolved	10.3		0.261	2.00	1	10/30/2024 23:02	WG2391364
Selenium,Dissolved	0.0405		0.00735	0.0100	1	10/30/2024 23:02	WG2391364
Sodium,Dissolved	1070		2.52	15.0	5	10/31/2024 05:43	WG2391364
Strontium,Dissolved	5.01		0.000640	0.0100	1	10/30/2024 23:02	WG2391364

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPH (GC/FID) Low Fraction	35.1	B J	31.4	100	1	10/29/2024 03:46	WG2391158
(S) a,a,a-Trifluorotoluene(FID)	*86.4*			*78.0-120*		*10/29/2024 03:46*	WG2391158

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	U		5.10	10.0	1	10/27/2024 09:32	WG2388998
Ethane	U		3.40	13.0	1	10/27/2024 09:32	WG2388998
Propane	U		5.48	18.6	1	10/27/2024 09:32	WG2388998

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	10/29/2024 06:35	WG2391166
Toluene	U		0.278	1.00	1	10/29/2024 06:35	WG2391166
Ethylbenzene	U		0.137	1.00	1	10/29/2024 06:35	WG2391166
Xylenes, Total	U		0.174	3.00	1	10/29/2024 06:35	WG2391166
(S) Toluene-d8	*103*			*80.0-120*		*10/29/2024 06:35*	WG2391166
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*10/29/2024 06:35*	WG2391166
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*10/29/2024 06:35*	WG2391166

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
C10-C28 Diesel Range	70.5	J	22.2	100	1	11/02/2024 14:36	WG2392742
C28-C36 Motor Oil Range	90.1	B J	11.8	100	1	11/02/2024 14:36	WG2392742
(S) o-Terphenyl	*118*			*52.0-156*		*11/02/2024 14:36*	WG2392742

Microbiology by Method BART

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Iron Related Bacteria	Present		1	11/03/2024 09:56	WG2388975
Slime Forming Bacteria	Absent		1	11/03/2024 09:56	WG2388975
Sulfate Reducing Bacteria	Absent		1	11/03/2024 09:56	WG2388975

Sample Narrative:

L1792039-02 WG2388975: IRB Approximate Population= 67,000 CFU/mL. Reactions= FO/BR.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4790		100	1	10/24/2024 16:40	WG2388700

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	380		8.45	20.0	1	10/24/2024 14:23	WG2388657
Alkalinity,Bicarbonate	380		8.45	20.0	1	10/24/2024 14:23	WG2388657
Alkalinity,Carbonate	U		8.45	20.0	1	10/24/2024 14:23	WG2388657
Alkalinity,Hydroxide	U		8.45	20.0	1	10/24/2024 14:23	WG2388657

Sample Narrative:

L1792039-02 WG2388657: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	20.7		0.500	1.00	10	10/27/2024 21:29	WG2390531

Wet Chemistry by Method 365.4

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Phosphorus,Total	0.0483	B J	0.0350	0.100	1	10/25/2024 11:33	WG2389483

Wet Chemistry by Method 9040C

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.39	T8	1	10/25/2024 16:00	WG2389046

Sample Narrative:

L1792039-02 WG2389046: 7.39 at 20.1C

Wet Chemistry by Method 9050A

Analyte	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	6030	umhos/cm		10.0	1	10/25/2024 16:30	WG2389601

Sample Narrative:

L1792039-02 WG2389601: at 25C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Bromide	3.49	J	3.40	5.00	5	10/24/2024 19:47	WG2388539
Chloride	467		2.74	5.00	5	10/24/2024 19:47	WG2388539
Fluoride	0.432	J	0.380	0.750	5	10/24/2024 19:47	WG2388539
Nitrate as (N)	31.5		0.442	0.500	5	10/24/2024 19:47	WG2388539
Nitrite as (N)	U		0.397	0.500	5	10/24/2024 19:47	WG2388539
Sulfate	2300		12.7	100	20	10/24/2024 19:59	WG2388539

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Barium,Dissolved	0.00843		0.000736	0.00500	1	10/30/2024 23:04	WG2391364
Boron,Dissolved	0.131	J	0.0200	0.200	1	10/30/2024 23:04	WG2391364
Calcium,Dissolved	410		0.0793	1.00	1	10/30/2024 23:04	WG2391364
Iron,Dissolved	U		0.0180	0.100	1	10/30/2024 23:04	WG2391364
Magnesium,Dissolved	221		0.0853	1.00	1	10/30/2024 23:04	WG2391364
Manganese,Dissolved	0.338		0.000934	0.0100	1	10/30/2024 23:04	WG2391364
Potassium,Dissolved	8.94		0.261	2.00	1	10/30/2024 23:04	WG2391364
Selenium,Dissolved	0.0415		0.00735	0.0100	1	10/30/2024 23:04	WG2391364
Sodium,Dissolved	804		0.504	3.00	1	10/30/2024 23:04	WG2391364
Strontium,Dissolved	5.43		0.000640	0.0100	1	10/30/2024 23:04	WG2391364

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPH (GC/FID) Low Fraction	U		31.4	100	1	10/29/2024 17:04	WG2391179
(S) a,a,a-Trifluorotoluene(FID)	*99.3*			*78.0-120*		*10/29/2024 17:04*	WG2391179

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	61.1		5.10	10.0	1	10/27/2024 09:35	WG2388998
Ethane	U		3.40	13.0	1	10/27/2024 09:35	WG2388998
Propane	U		5.48	18.6	1	10/27/2024 09:35	WG2388998

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	10/29/2024 06:56	WG2391166
Toluene	U		0.278	1.00	1	10/29/2024 06:56	WG2391166
Ethylbenzene	U		0.137	1.00	1	10/29/2024 06:56	WG2391166
Xylenes, Total	U		0.174	3.00	1	10/29/2024 06:56	WG2391166
(S) Toluene-d8	*105*			*80.0-120*		*10/29/2024 06:56*	WG2391166
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*10/29/2024 06:56*	WG2391166
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*10/29/2024 06:56*	WG2391166

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
C10-C28 Diesel Range	67.9	J	22.2	100	1	11/02/2024 14:56	WG2392742
C28-C36 Motor Oil Range	89.9	B J	11.8	100	1	11/02/2024 14:56	WG2392742
(S) o-Terphenyl	*116*			*52.0-156*		*11/02/2024 14:56*	WG2392742

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	10/29/2024 02:18	WG2391176
Toluene	U		0.278	1.00	1	10/29/2024 02:18	WG2391176
Ethylbenzene	U		0.137	1.00	1	10/29/2024 02:18	WG2391176
Xylenes, Total	U		0.174	3.00	1	10/29/2024 02:18	WG2391176
(S) Toluene-d8	*106*			*80.0-120*		*10/29/2024 02:18*	WG2391176
(S) 4-Bromofluorobenzene	*112*			*77.0-126*		*10/29/2024 02:18*	WG2391176
(S) 1,2-Dichloroethane-d4	*95.9*			*70.0-130*		*10/29/2024 02:18*	WG2391176

Method Blank (MB)

(MB) R4138652-1 10/24/24 16:40

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

L1791732-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1791732-03 10/24/24 16:40 • (DUP) R4138652-3 10/24/24 16:40

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	323	329	1	1.84		10

L1792100-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1792100-01 10/24/24 16:40 • (DUP) R4138652-4 10/24/24 16:40

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	8360	8430	1	0.834		10

Laboratory Control Sample (LCS)

(LCS) R4138652-2 10/24/24 16:40

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8650	98.3	85.0-115	

QUALITY CONTROL SUMMARY

L1792039-01,02

Method Blank (MB)

(MB) R4137235-2 10/24/24 12:44

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity	U		8.45	20.0
Alkalinity,Bicarbonate	U		8.45	20.0
Alkalinity,Carbonate	U		8.45	20.0
Alkalinity,Hydroxide	U		8.45	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1792003-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1792003-01 10/24/24 12:58 • (DUP) R4137235-3 10/24/24 13:03

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	50.7	51.8	1	2.28		20
Alkalinity,Bicarbonate	50.7	51.8	1	2.28		20
Alkalinity,Carbonate	U	U	1	0.000		20
Alkalinity,Hydroxide	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1792041-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1792041-01 10/24/24 14:46 • (DUP) R4137235-4 10/24/24 14:49

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	U	U	1	0.000		20
Alkalinity,Bicarbonate	U	U	1	0.000		20
Alkalinity,Carbonate	U	U	1	0.000		20
Alkalinity,Hydroxide	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R4137235-1 10/24/24 12:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Alkalinity	100	102	102	90.0-110	

Sample Narrative:

LCS: Endpoint pH 4.5

Method Blank (MB)

(MB) R4138248-1 10/27/24 21:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1792047-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1792047-03 10/27/24 21:33 • (DUP) R4138248-3 10/27/24 21:34

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

L1792217-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1792217-06 10/27/24 21:57 • (DUP) R4138248-6 10/27/24 21:58

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.0652	0.0715	1	9.22	J	20

Laboratory Control Sample (LCS)

(LCS) R4138248-2 10/27/24 21:26

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2.50	2.46	98.4	90.0-110	

L1792047-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1792047-03 10/27/24 21:33 • (MS) R4138248-4 10/27/24 21:35 • (MSD) R4138248-5 10/27/24 21:40

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 %
Nitrate-Nitrite	2.50	U	2.31	2.32	92.4	92.8	1	90.0-110			0.432	20

L1792217-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1792217-06 10/27/24 21:57 • (MS) R4138248-7 10/27/24 21:59 • (MSD) R4138248-8 10/27/24 22:01

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 %
Nitrate-Nitrite	2.50	0.0652	2.29	2.35	89.0	91.4	1	90.0-110	J6		2.59	20

Method Blank (MB)

(MB) R4137640-1 10/25/24 11:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Phosphorus,Total	0.0475	J	0.0350	0.100

L1792039-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1792039-01 10/25/24 11:30 • (DUP) R4137640-3 10/25/24 11:32

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Phosphorus,Total	0.0659	0.0659	1	0.000	J	20

L1792217-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1792217-06 10/25/24 11:43 • (DUP) R4137640-4 10/25/24 11:44

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Phosphorus,Total	0.643	0.685	1	6.33		20

Laboratory Control Sample (LCS)

(LCS) R4137640-2 10/25/24 11:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Phosphorus,Total	1.81	1.95	108	85.0-115	

L1792217-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1792217-06 10/25/24 11:43 • (MS) R4137640-5 10/25/24 11:46 • (MSD) R4137640-6 10/25/24 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 %
Phosphorus,Total	2.50	0.643	3.23	3.23	103	103	1	90.0-110			0.000	20

L1792039-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1792039-01 10/25/24 16:00 • (DUP) R4137847-2 10/25/24 16:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.33	7.36	1	0.408		1

Sample Narrative:

OS: 7.33 at 20.3C

DUP: 7.36 at 20.6C

L1792217-14 Original Sample (OS) • Duplicate (DUP)

(OS) L1792217-14 10/25/24 16:00 • (DUP) R4137847-3 10/25/24 16:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.27	8.25	1	0.242		1

Sample Narrative:

OS: 8.27 at 20.1C

DUP: 8.25 at 20.4C

Laboratory Control Sample (LCS)

(LCS) R4137847-1 10/25/24 16:00

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	9.95	99.5	99.0-101	

Sample Narrative:

LCS: 9.95 at 20.3C

Method Blank (MB)

(MB) R4137866-1 10/25/24 16:30

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

L1792039-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1792039-01 10/25/24 16:30 • (DUP) R4137866-3 10/25/24 16:30

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	7180	7200	1	0.278		20

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

L1792219-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1792219-04 10/25/24 16:30 • (DUP) R4137866-4 10/25/24 16:30

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	162	162	1	0.247		20

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

Laboratory Control Sample (LCS)

(LCS) R4137866-2 10/25/24 16:30

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	733	743	101	85.0-115	

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R4137581-1 10/24/24 15:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Bromide	U		0.680	1.00
Chloride	U		0.547	1.00
Fluoride	U		0.0761	0.150
Nitrate as (N)	U		0.0884	0.100
Nitrite as (N)	U		0.0794	0.100
Sulfate	U		0.637	5.00

L1789839-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1789839-05 10/24/24 15:45 • (DUP) R4137581-3 10/24/24 15:58

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Bromide	2.80	2.82	1	0.516		15
Chloride	629	632	1	0.461	E	15
Fluoride	1.78	1.82	1	2.25		15
Nitrate as (N)	6.64	6.65	1	0.138		15
Nitrite as (N)	U	U	1	0.000		15
Sulfate	156	156	1	0.294		15

L1792047-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1792047-03 10/24/24 22:06 • (DUP) R4137581-4 10/24/24 22:19

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Bromide	U	U	1	0.000		15
Chloride	30.5	30.2	1	0.974		15
Fluoride	0.212	0.241	1	12.8		15
Nitrate as (N)	U	U	1	0.000		15
Nitrite as (N)	U	U	1	0.000		15
Sulfate	5.99	6.03	1	0.642		15

Laboratory Control Sample (LCS)

(LCS) R4137581-2 10/24/24 15:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromide	40.0	37.6	94.1	80.0-120	
Chloride	40.0	36.8	92.0	80.0-120	
Fluoride	8.00	7.49	93.6	80.0-120	
Nitrate as (N)	8.00	7.41	92.7	80.0-120	
Nitrite as (N)	8.00	7.40	92.5	80.0-120	
Sulfate	40.0	37.8	94.5	80.0-120	

L1792047-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1792047-03 10/24/24 22:06 • (MS) R4137581-5 10/24/24 23:48 • (MSD) R4137581-6 10/25/24 00:01

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 %
Bromide	40.0	U	40.9	41.0	102	103	1	80.0-120			0.318	15
Chloride	40.0	30.5	63.7	63.8	83.1	83.3	1	80.0-120			0.0762	15
Fluoride	8.00	0.212	8.10	8.04	98.5	97.8	1	80.0-120			0.726	15
Nitrate as (N)	8.00	U	7.95	7.97	99.4	99.6	1	80.0-120			0.232	15
Nitrite as (N)	8.00	U	8.18	7.92	102	99.1	1	80.0-120			3.12	15
Sulfate	40.0	5.99	44.0	44.1	95.1	95.2	1	80.0-120			0.167	15

L1789839-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1789839-05 10/24/24 15:45 • (MS) R4137581-7 10/25/24 00:14

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Bromide	40.0	2.80	40.6	94.5	1	80.0-120	
Chloride	40.0	629	543	0.000	1	80.0-120	E V
Fluoride	8.00	1.78	9.21	92.9	1	80.0-120	
Nitrate as (N)	8.00	6.64	13.3	83.1	1	80.0-120	
Nitrite as (N)	8.00	U	9.82	123	1	80.0-120	J5
Sulfate	40.0	156	166	25.0	1	80.0-120	J6

Method Blank (MB)

(MB) R4139976-1 10/30/24 23:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Barium,Dissolved	U		0.000736	0.00500
Boron,Dissolved	U		0.0200	0.200
Calcium,Dissolved	U		0.0793	1.00
Iron,Dissolved	U		0.0180	0.100
Magnesium,Dissolved	U		0.0853	1.00
Manganese,Dissolved	U		0.000934	0.0100
Potassium,Dissolved	U		0.261	2.00
Selenium,Dissolved	U		0.00735	0.0100
Sodium,Dissolved	U		0.504	3.00
Strontium,Dissolved	U		0.000640	0.0100

Laboratory Control Sample (LCS)

(LCS) R4139976-2 10/30/24 23:13

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium,Dissolved	1.00	1.03	103	80.0-120	
Boron,Dissolved	1.00	1.01	101	80.0-120	
Calcium,Dissolved	10.0	10.4	104	80.0-120	
Iron,Dissolved	10.0	9.63	96.3	80.0-120	
Magnesium,Dissolved	10.0	9.94	99.4	80.0-120	
Manganese,Dissolved	1.00	1.04	104	80.0-120	
Potassium,Dissolved	10.0	10.4	104	80.0-120	
Selenium,Dissolved	1.00	1.02	102	80.0-120	
Sodium,Dissolved	10.0	10.5	105	80.0-120	
Strontium,Dissolved	1.00	1.05	105	80.0-120	

L1792086-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1792086-01 10/30/24 23:14 • (MS) R4139976-4 10/30/24 23:18 • (MSD) R4139976-5 10/30/24 23:19

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 %
Barium,Dissolved	1.00	0.0851	1.09	1.10	101	101	1	75.0-125			0.612	20
Boron,Dissolved	1.00	0.210	1.19	1.20	97.6	99.1	1	75.0-125			1.32	20
Calcium,Dissolved	10.0	42.3	51.3	51.2	90.1	89.6	1	75.0-125			0.0842	20
Iron,Dissolved	10.0	0.0897	9.48	9.54	93.9	94.5	1	75.0-125			0.613	20
Magnesium,Dissolved	10.0	7.54	16.8	17.0	92.8	94.6	1	75.0-125			1.10	20
Manganese,Dissolved	1.00	0.00430	1.02	1.03	101	102	1	75.0-125			0.583	20
Potassium,Dissolved	10.0	1.95	12.1	12.0	102	100	1	75.0-125			0.991	20

L1792086-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1792086-01 10/30/24 23:14 • (MS) R4139976-4 10/30/24 23:18 • (MSD) R4139976-5 10/30/24 23:19

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 %
Selenium,Dissolved	1.00	U	1.02	1.02	102	102	1	75.0-125			0.0902	20
Sodium,Dissolved	10.0	230	233	235	30.1	44.7	1	75.0-125	V	V	0.622	20
Strontium,Dissolved	1.00	0.200	1.22	1.23	102	103	1	75.0-125			1.03	20

Method Blank (MB)

(MB) R4139014-4 10/28/24 22:18

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
TPH (GC/FID) Low Fraction	39.4	J	31.4	100
(S) a,a,a-Trifluorotoluene(FID)	*85.9*			*78.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4139014-2 10/28/24 20:41 • (LCSD) R4139014-3 10/28/24 21:37

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5000	4610	4590	92.2	91.8	72.0-127			0.435	20
(S) a,a,a-Trifluorotoluene(FID)				*91.2*	*90.8*	*78.0-120*				

Method Blank (MB)

(MB) R4139176-3 10/29/24 12:07

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
TPH (GC/FID) Low Fraction	U		31.4	100
(S) a,a,a-Trifluorotoluene(FID)	*99.2*			*78.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4139176-1 10/29/24 11:01 • (LCSD) R4139176-2 10/29/24 11:23

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5000	4650	4850	93.0	97.0	72.0-127			4.21	20
(S) a,a,a-Trifluorotoluene(FID)				*96.8*	*96.6*	*78.0-120*				

Method Blank (MB)

(MB) R4138151-2 10/27/24 09:28

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Methane	U		5.10	10.0
Ethane	U		3.40	13.0
Propane	U		5.48	18.6

L1792039-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1792039-01 10/27/24 09:32 • (DUP) R4138151-3 10/27/24 10:38

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	U	U	1	0.000		20
Ethane	U	U	1	0.000		20
Propane	U	U	1	0.000		20

L1792181-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1792181-05 10/27/24 11:34 • (DUP) R4138151-4 10/27/24 12:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	U	U	1	0.000		20
Ethane	U	U	1	0.000		20
Propane	U	U	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4138151-1 10/27/24 09:23 • (LCSD) R4138151-5 10/27/24 12:33

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Methane	67.8	72.1	70.8	106	104	85.0-115			1.82	20
Ethane	129	134	133	104	103	85.0-115			0.749	20
Propane	186	190	187	102	101	85.0-115			1.59	20

Method Blank (MB)

(MB) R4141922-2 10/28/24 23:55

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0941	1.00
Toluene	U		0.278	1.00
Ethylbenzene	U		0.137	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	*106*			*80.0-120*
(S) 4-Bromofluorobenzene	*106*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4141922-1 10/28/24 21:43 • (LCSD) R4141922-3 10/29/24 00:16

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	5.00	5.83	5.50	117	110	70.0-123			5.83	20
Toluene	5.00	5.93	5.52	119	110	79.0-120			7.16	20
Ethylbenzene	5.00	5.97	5.50	119	110	79.0-123			8.20	20
Xylenes, Total	15.0	17.6	16.2	117	108	79.0-123			8.28	20
(S) Toluene-d8				*106*	*105*	*80.0-120*				
(S) 4-Bromofluorobenzene				*109*	*108*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*105*	*105*	*70.0-130*				

Method Blank (MB)

(MB) R4141916-2 10/29/24 00:20

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0941	1.00
Toluene	U		0.278	1.00
Ethylbenzene	U		0.137	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	*107*			*80.0-120*
(S) 4-Bromofluorobenzene	*112*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*98.3*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R4141916-1 10/28/24 23:13

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	5.00	4.89	97.8	70.0-123	
Toluene	5.00	4.78	95.6	79.0-120	
Ethylbenzene	5.00	4.72	94.4	79.0-123	
Xylenes, Total	15.0	14.4	96.0	79.0-123	
(S) Toluene-d8			*106*	*80.0-120*	
(S) 4-Bromofluorobenzene			*111*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*98.3*	*70.0-130*	

Method Blank (MB)

(MB) R4140653-1 11/01/24 06:44

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
C10-C28 Diesel Range	U		22.2	100
C28-C36 Motor Oil Range	18.7	J	11.8	100
(S) o-Terphenyl	*118*			*52.0-156*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4140653-2 11/01/24 07:04 • (LCSD) R4140653-3 11/01/24 07:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	1500	1660	1670	111	111	50.0-150			0.601	20
(S) o-Terphenyl				*114*	*113*	*52.0-156*				

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.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
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
B	The same analyte is found in the associated blank.
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.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
T8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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

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

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

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

Company Name/Address:
Terra Energy Partners

743 Horizon Ct. Suite 330
Grand Junction, CO 81506

Billing Information:
Tammy Gose
1058 County Road 215
Parachute, CO 81635

Pres Chk

Report to:
Mike G. / Kris R. / Bruce S.

Email To:
mgardner@terraep.com;krowe@terraep.com;b

Project Description:
PA 34-24

City/State Collected: Rifle

Please Circle: PT (MT) CT ET

Phone: **970-242-0170**

Client Project #

Lab Project #
TERENGPCO-WWL

Collected by (print):
Thomas Prichard

Site/Facility ID #
05-045-23894

P.O. #

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 #
Rule 615

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	ALK,Bi/Ca/OH,pH,COND 250mlHDPE-NoPres	BART Microbiological	Br,Cl,F,NO2,NO3,SO4 125mlHDPE-NoPres	DRONMLVI 40mlAmb-HCl-BT	Diss Metals 250mlHDPE-NoPres	GRO 40mlAmb HCl	NO2NO3,PT 250mlHDPE-H2SO4	RSK175 40mlAmb HCl	TDS 1L-HDPE NoPres	V8260BTEX 40mlAmb-HCl	Remarks	Sample # (lab only)
Nangle 67992-F		GW		10/23/24	1000	15	X	X	X	X	X	X	X	X	X	X		-01
Nangle 202848		DW		10/23/24	1050	15	X	X	X	X	X	X	X	X	X	X		-02
Trip blank						1										X		-03

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

Remarks:Diss Metals - Ba,B,Ca,Fe,K,Mg,Mn,Na,Se,Sr also total phosphorus
-Trip blank = BTEX only

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 4102 9173 8005

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	10/23/24	1445	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			CROberg

Trip Blank Received: Yes / No
HCl / MeoH
TBR

Temp: 0.1°C 0.3°C 0.4°C MSA9 Bottles Received: 30

Date: 10.24.24 Time: 0900

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

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

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

SDG # L1742037
B056

Acctnum: **TERENGPCO**
Template:**T246585**
Prelogin: **P1105901**
PM: **824 - Chris Ward**
PB:

Shipped Via: **FedEX Ground**