ANALYTICAL REPORT

September 11, 2024

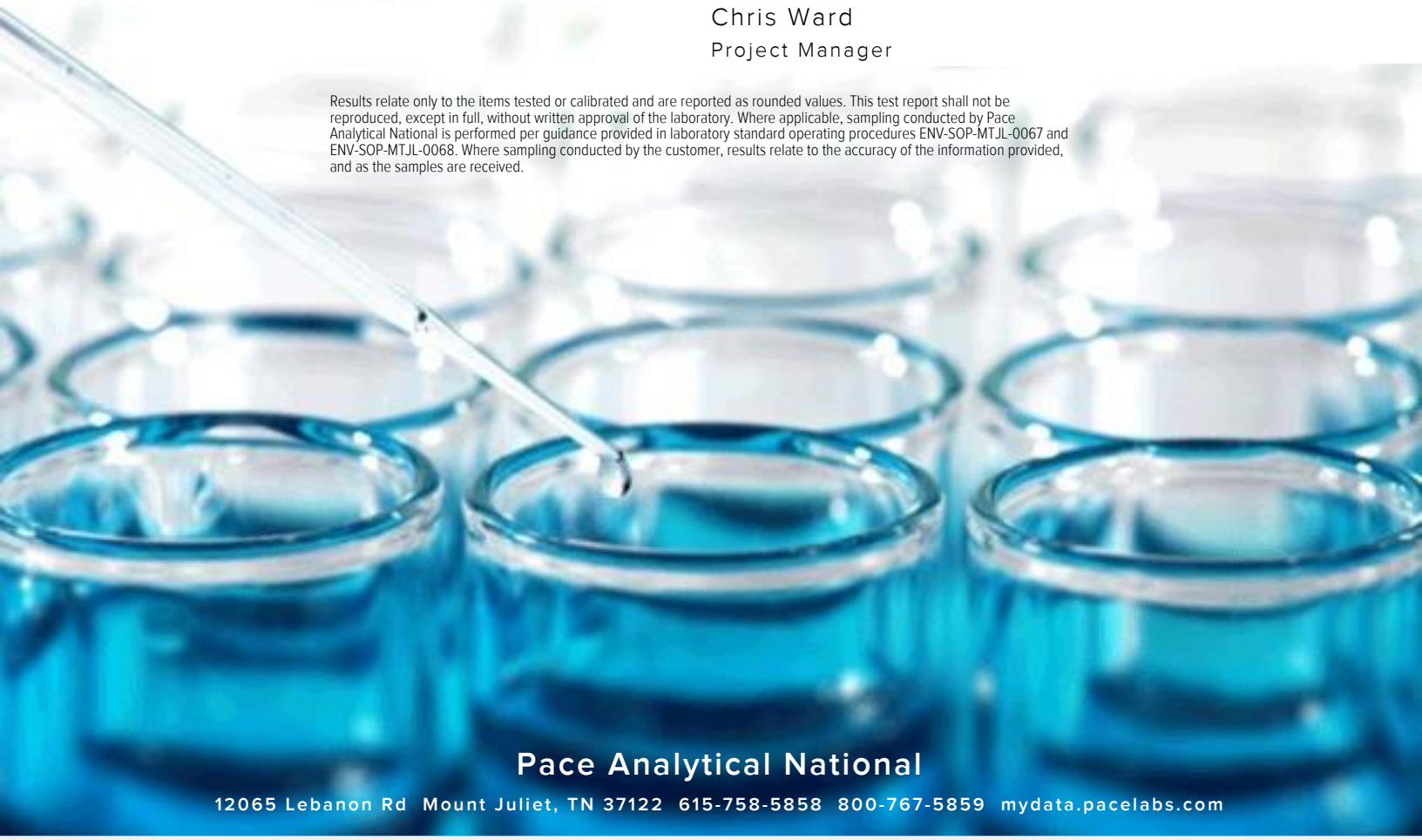
Civitas - CO

Sample Delivery Group:	L1771286
Samples Received:	08/24/2024
Project Number:	24410
Description:	Kiyota 44-35, 3-35

Report To: Sam Vogt / Jacob Evans
6855 W. 118th Ave
Broomfield, CO 80020

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

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SAMPLE SUMMARY

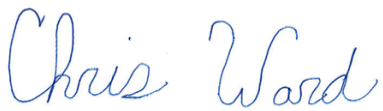
3-35, 45-35-FL-B01 @ 4 L1771286-01 Solid

Collected by: GM/AK
Collected date/time: 08/22/24 12:25
Received date/time: 08/24/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2353863	1	09/04/24 18:15	09/04/24 18:15	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2353857	1	09/05/24 07:48	09/05/24 16:13	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2356070	1	09/04/24 14:04	09/04/24 18:55	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2356073	1	09/04/24 14:06	09/04/24 14:52	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2354168	1	09/05/24 22:46	09/06/24 21:33	MAP	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2353879	1	09/06/24 14:23	09/06/24 23:39	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2359491	5	09/10/24 12:02	09/11/24 03:00	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2354407	1	08/28/24 18:39	09/01/24 04:03	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2354380	1	08/28/24 18:39	09/02/24 10:06	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2353566	1	09/02/24 07:41	09/04/24 14:18	JSS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2353577	1	09/02/24 15:10	09/04/24 12:47	JCH	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 requested project specific reporting limits may be less than laboratory standard quantitation limits (PQL) but will be greater than or equal to the laboratory method detection limits (MDL). It is noted that results reported below lab standard quantitation limits (PQLs) may result in false positive/false negative values that may require additional laboratory quality assurance review, if requested. Routine laboratory procedures do not initiate a data review process for detections below the laboratory's PQL unless requested by the client.

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	1.66		1	09/04/2024 18:15	WG2353863

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.300	1	09/05/2024 16:13	WG2353857

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.93	T8	1	09/04/2024 18:55	WG2356070

Sample Narrative:

L1771286-01 WG2356070: 7.93 at 21C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	523		10.0	1	09/04/2024 14:52	WG2356073

Sample Narrative:

L1771286-01 WG2356073: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	0.892	J	0.518	1	09/06/2024 21:33	WG2354168
Barium	53.5		0.400	1	09/06/2024 21:33	WG2354168
Cadmium	ND		0.200	1	09/06/2024 21:33	WG2354168
Copper	4.33		0.400	1	09/06/2024 21:33	WG2354168
Lead	5.54		0.208	1	09/06/2024 21:33	WG2354168
Nickel	4.95		0.400	1	09/06/2024 21:33	WG2354168
Selenium	ND		0.764	1	09/06/2024 21:33	WG2354168
Silver	ND		0.200	1	09/06/2024 21:33	WG2354168
Zinc	21.4		1.00	1	09/06/2024 21:33	WG2354168

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		2.00	1	09/06/2024 23:39	WG2353879

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Selenium	ND		0.260	5	09/11/2024 03:00	WG2359491

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

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.500	1	09/01/2024 04:03	WG2354407
(S) a,a,a-Trifluorotoluene(FID)	*92.8*			*77.0-120*	*09/01/2024 04:03*	WG2354407

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

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00200	1	09/02/2024 10:06	WG2354380
Toluene	ND		0.00500	1	09/02/2024 10:06	WG2354380
Ethylbenzene	ND		0.00500	1	09/02/2024 10:06	WG2354380
Xylenes, Total	ND		0.0100	1	09/02/2024 10:06	WG2354380
1,2,4-Trimethylbenzene	ND		0.00500	1	09/02/2024 10:06	WG2354380
1,3,5-Trimethylbenzene	ND		0.00500	1	09/02/2024 10:06	WG2354380
(S) Toluene-d8	*103*			*75.0-131*	*09/02/2024 10:06*	WG2354380
(S) 4-Bromofluorobenzene	*103*			*67.0-138*	*09/02/2024 10:06*	WG2354380
(S) 1,2-Dichloroethane-d4	*84.1*			*70.0-130*	*09/02/2024 10:06*	WG2354380

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

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	ND		50.0	1	09/04/2024 14:18	WG2353566
C28-C36 Motor Oil Range	ND		50.0	1	09/04/2024 14:18	WG2353566
(S) o-Terphenyl	*65.6*			*18.0-148*	*09/04/2024 14:18*	WG2353566

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.00500	1	09/04/2024 12:47	WG2353577
Anthracene	ND		0.00500	1	09/04/2024 12:47	WG2353577
Benzo(a)anthracene	ND		0.00500	1	09/04/2024 12:47	WG2353577
Benzo(b)fluoranthene	ND		0.00500	1	09/04/2024 12:47	WG2353577
Benzo(k)fluoranthene	ND		0.00500	1	09/04/2024 12:47	WG2353577
Benzo(a)pyrene	ND		0.00500	1	09/04/2024 12:47	WG2353577
Chrysene	ND		0.00500	1	09/04/2024 12:47	WG2353577
Dibenz(a,h)anthracene	ND		0.00500	1	09/04/2024 12:47	WG2353577
Fluoranthene	ND		0.00500	1	09/04/2024 12:47	WG2353577
Fluorene	ND		0.00500	1	09/04/2024 12:47	WG2353577
Indeno(1,2,3-cd)pyrene	ND		0.00500	1	09/04/2024 12:47	WG2353577
1-Methylnaphthalene	ND		0.00500	1	09/04/2024 12:47	WG2353577
2-Methylnaphthalene	ND		0.00500	1	09/04/2024 12:47	WG2353577
Naphthalene	ND		0.00408	1	09/04/2024 12:47	WG2353577
Pyrene	ND		0.00500	1	09/04/2024 12:47	WG2353577
(S) p-Terphenyl-d14	*86.7*			*23.0-120*	*09/04/2024 12:47*	WG2353577
(S) Nitrobenzene-d5	*83.2*			*14.0-149*	*09/04/2024 12:47*	WG2353577
(S) 2-Fluorobiphenyl	*83.7*			*34.0-125*	*09/04/2024 12:47*	WG2353577

Method Blank (MB)

(MB) R4116197-1 09/05/24 14:26

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Hexavalent Chromium	ND		0.255	1.00

L1771285-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1771285-03 09/05/24 16:01 • (DUP) R4116197-7 09/05/24 16:07

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Hexavalent Chromium	ND	ND	1	0.000		20

L1771288-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1771288-05 09/05/24 16:57 • (DUP) R4116197-8 09/05/24 17:03

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Hexavalent Chromium	ND	ND	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R4116197-2 09/05/24 14:34

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Hexavalent Chromium	10.0	10.2	102	80.0-120	

L1770942-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1770942-02 09/05/24 14:47 • (MS) R4116197-3 09/05/24 14:53 • (MSD) R4116197-4 09/05/24 14:59

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Hexavalent Chromium	20.0	ND	15.3	5.67	76.6	28.4	1	75.0-125		J3 J6	91.9	20

L1770942-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1770942-02 09/05/24 14:47 • (MS) R4116197-5 09/05/24 15:05

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	651	ND	600	92.1	50	75.0-125	

QUALITY CONTROL SUMMARY

L1771286-01

L1771275-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1771275-01 09/04/24 18:55 • (DUP) R4115548-2 09/04/24 18:55

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.04	8.01	1	0.374		1

Sample Narrative:

OS: 8.04 at 21.7C

DUP: 8.01 at 21.6C

L1771289-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1771289-01 09/04/24 18:55 • (DUP) R4115548-3 09/04/24 18:55

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.98	7.99	1	0.125		1

Sample Narrative:

OS: 7.98 at 21.1C

DUP: 7.99 at 21.2C

Laboratory Control Sample (LCS)

(LCS) R4115548-1 09/04/24 18:55

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10.02 at 21.4C

Method Blank (MB)

(MB) R4115437-1 09/04/24 14:52

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

Sample Narrative:
BLANK: at 25C

L1771275-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1771275-02 09/04/24 14:52 • (DUP) R4115437-3 09/04/24 14:52

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	51.4	51.3	1	0.195		20

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

L1771288-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1771288-06 09/04/24 14:52 • (DUP) R4115437-4 09/04/24 14:52

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	581	581	1	0.000		20

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

Laboratory Control Sample (LCS)

(LCS) R4115437-2 09/04/24 14:52

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	733	738	101	85.0-115	

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R4116725-1 09/06/24 21:10

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	ND		0.518	2.00
Barium	ND		0.0852	0.500
Cadmium	ND		0.0471	0.500
Copper	ND		0.400	2.00
Lead	ND		0.208	0.500
Nickel	ND		0.132	2.00
Selenium	ND		0.764	2.00
Silver	ND		0.127	1.00
Zinc	ND		0.832	5.00

Laboratory Control Sample (LCS)

(LCS) R4116725-2 09/06/24 21:11

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	104	104	80.0-120	
Barium	100	108	108	80.0-120	
Cadmium	100	103	103	80.0-120	
Copper	100	108	108	80.0-120	
Lead	100	101	101	80.0-120	
Nickel	100	102	102	80.0-120	
Selenium	100	96.9	96.9	80.0-120	
Silver	20.0	21.6	108	80.0-120	
Zinc	100	104	104	80.0-120	

L1771288-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1771288-02 09/06/24 21:13 • (MS) R4116725-5 09/06/24 21:19 • (MSD) R4116725-6 09/06/24 21:20

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	100	3.17	103	97.5	100	94.4	1	75.0-125			5.66	20
Barium	100	136	303	222	168	85.9	1	75.0-125	J5	J3	31.1	20
Cadmium	100	ND	105	97.1	104	96.9	1	75.0-125			7.46	20
Copper	100	9.78	120	114	110	104	1	75.0-125			5.30	20
Lead	100	10.0	119	113	109	103	1	75.0-125			5.24	20
Nickel	100	12.6	122	115	110	103	1	75.0-125			5.69	20
Selenium	100	ND	104	98.6	104	98.6	1	75.0-125			5.31	20
Silver	20.0	ND	23.0	21.2	115	106	1	75.0-125			8.33	20
Zinc	100	40.1	143	142	103	102	1	75.0-125			0.441	20

Method Blank (MB)

(MB) R4116727-1 09/06/24 23:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Hot Water Sol. Boron	ND		0.0167	0.200

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

(LCS) R4116727-2 09/06/24 23:10 • (LCSD) R4116727-3 09/06/24 23:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	1.00	1.00	100	100	80.0-120			0.410	20

Method Blank (MB)

(MB) R4118127-1 09/11/24 03:13

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Selenium	ND		0.180	2.50

Laboratory Control Sample (LCS)

(LCS) R4118127-2 09/11/24 03:16

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Selenium	100	101	101	80.0-120	

L1771275-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1771275-02 09/11/24 03:19 • (MS) R4118127-5 09/11/24 03:29 • (MSD) R4118127-6 09/11/24 03:32

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Selenium	100	ND	84.0	89.7	84.0	89.7	5	75.0-125			6.59	20

Method Blank (MB)

(MB) R4114753-2 09/01/24 03:43

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	ND		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*96.6*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R4114753-1 09/01/24 03:05

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.00	5.57	111	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*106*	*77.0-120*	

Method Blank (MB)

(MB) R4114929-3 09/02/24 05:59

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	ND		0.000467	0.00100
Toluene	ND		0.00130	0.00500
Ethylbenzene	ND		0.000737	0.00250
Xylenes, Total	ND		0.000880	0.00650
1,2,4-Trimethylbenzene	ND		0.00158	0.00500
1,3,5-Trimethylbenzene	ND		0.00200	0.00500
(S) Toluene-d8	*104*			*75.0-131*
(S) 4-Bromofluorobenzene	*104*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*84.4*			*70.0-130*

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

(LCS) R4114929-1 09/02/24 04:24 • (LCSD) R4114929-2 09/02/24 04:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.108	0.111	86.4	88.8	70.0-123			2.74	20
Toluene	0.125	0.120	0.121	96.0	96.8	75.0-121			0.830	20
Ethylbenzene	0.125	0.131	0.134	105	107	74.0-126			2.26	20
Xylenes, Total	0.375	0.396	0.404	106	108	72.0-127			2.00	20
1,2,4-Trimethylbenzene	0.125	0.106	0.106	84.8	84.8	70.0-126			0.000	20
1,3,5-Trimethylbenzene	0.125	0.106	0.108	84.8	86.4	73.0-127			1.87	20
(S) Toluene-d8				*103*	*103*	*75.0-131*				
(S) 4-Bromofluorobenzene				*104*	*101*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*84.7*	*88.1*	*70.0-130*				

Method Blank (MB)

(MB) R4115263-1 09/04/24 05:47

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	ND		1.61	4.00
C28-C36 Motor Oil Range	ND		0.274	4.00
(S) o-Terphenyl	*82.7*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R4115263-2 09/04/24 06:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	41.1	82.2	50.0-150	
(S) o-Terphenyl			*80.3*	*18.0-148*	

L1771285-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1771285-01 09/04/24 09:54 • (MS) R4115263-3 09/04/24 10:07 • (MSD) R4115263-4 09/04/24 10:20

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	48.5	ND	ND	ND	42.9	56.6	1	50.0-150	J6	J3	25.2	20
(S) o-Terphenyl					*41.8*	*49.2*		*18.0-148*				

Method Blank (MB)

(MB) R4115646-2 09/04/24 10:14

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acenaphthene	ND		0.00209	0.00600
Anthracene	ND		0.00230	0.00600
Benzo(a)anthracene	ND		0.00173	0.00600
Benzo(b)fluoranthene	ND		0.00153	0.00600
Benzo(k)fluoranthene	ND		0.00215	0.00600
Benzo(a)pyrene	ND		0.00179	0.00600
Chrysene	ND		0.00232	0.00600
Dibenz(a,h)anthracene	ND		0.00172	0.00600
Fluoranthene	ND		0.00227	0.00600
Fluorene	ND		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	ND		0.00181	0.00600
1-Methylnaphthalene	ND		0.00449	0.0200
2-Methylnaphthalene	ND		0.00427	0.0200
Naphthalene	ND		0.00408	0.0200
Pyrene	ND		0.00200	0.00600
(S) p-Terphenyl-d14	*90.6*			*23.0-120*
(S) Nitrobenzene-d5	*89.3*			*14.0-149*
(S) 2-Fluorobiphenyl	*95.3*			*34.0-125*

Laboratory Control Sample (LCS)

(LCS) R4115646-1 09/04/24 09:56

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0800	0.0660	82.5	50.0-120	
Anthracene	0.0800	0.0674	84.3	50.0-126	
Benzo(a)anthracene	0.0800	0.0644	80.5	45.0-120	
Benzo(b)fluoranthene	0.0800	0.0693	86.6	42.0-121	
Benzo(k)fluoranthene	0.0800	0.0694	86.8	49.0-125	
Benzo(a)pyrene	0.0800	0.0571	71.4	42.0-120	
Chrysene	0.0800	0.0746	93.3	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0731	91.4	47.0-125	
Fluoranthene	0.0800	0.0782	97.8	49.0-129	
Fluorene	0.0800	0.0753	94.1	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0684	85.5	46.0-125	
1-Methylnaphthalene	0.0800	0.0678	84.8	51.0-121	
2-Methylnaphthalene	0.0800	0.0664	83.0	50.0-120	
Naphthalene	0.0800	0.0658	82.3	50.0-120	
Pyrene	0.0800	0.0636	79.5	43.0-123	

Laboratory Control Sample (LCS)

(LCS) R4115646-1 09/04/24 09:56

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
(S) p-Terphenyl-d14			*91.1*	*23.0-120*	
(S) Nitrobenzene-d5			*100*	*14.0-149*	
(S) 2-Fluorobiphenyl			*104*	*34.0-125*	

L1771283-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1771283-10 09/04/24 15:26 • (MS) R4115646-3 09/04/24 15:44 • (MSD) R4115646-4 09/04/24 16:02

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.0772	ND	0.0600	0.0558	77.7	72.3	1	14.0-127			7.25	27
Anthracene	0.0772	ND	0.0590	0.0579	76.4	75.0	1	10.0-145			1.88	30
Benzo(a)anthracene	0.0772	ND	0.0573	0.0529	74.2	68.5	1	10.0-139			7.99	30
Benzo(b)fluoranthene	0.0772	ND	0.0650	0.0604	84.2	78.2	1	10.0-140			7.34	36
Benzo(k)fluoranthene	0.0772	ND	0.0645	0.0594	83.5	76.9	1	10.0-137			8.23	31
Benzo(a)pyrene	0.0772	ND	0.0604	0.0558	78.2	72.3	1	10.0-141			7.92	31
Chrysene	0.0772	ND	0.0701	0.0661	90.8	85.6	1	10.0-145			5.87	30
Dibenz(a,h)anthracene	0.0772	ND	0.0685	0.0635	88.7	82.3	1	10.0-132			7.58	31
Fluoranthene	0.0772	ND	0.0695	0.0668	90.0	86.5	1	10.0-153			3.96	33
Fluorene	0.0772	ND	0.0679	0.0642	88.0	83.2	1	11.0-130			5.60	29
Indeno(1,2,3-cd)pyrene	0.0772	ND	0.0615	0.0562	79.7	72.8	1	10.0-137			9.01	32
1-Methylnaphthalene	0.0772	ND	0.0622	0.0591	80.6	76.6	1	10.0-142			5.11	28
2-Methylnaphthalene	0.0772	ND	0.0578	0.0543	74.9	70.3	1	10.0-137			6.24	28
Naphthalene	0.0772	ND	0.0589	0.0555	76.3	71.9	1	10.0-135			5.94	27
Pyrene	0.0772	ND	0.0602	0.0570	78.0	73.8	1	10.0-148			5.46	35
(S) p-Terphenyl-d14					*88.7*	*84.2*		*23.0-120*				
(S) Nitrobenzene-d5					*78.4*	*76.1*		*14.0-149*				
(S) 2-Fluorobiphenyl					*98.1*	*94.2*		*34.0-125*				

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.
ND	Not detected at the Reporting Limit (or MDL where applicable).
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.
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
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
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.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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

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

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

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

Company Name/Address:
Civitas/Tasman - CO
6855 W. 118th Ave
Broomfield, CO 80020

Billing Information:
Accounts Payable
650 Southgate Dr.
Windsor, CO 80550

Pres Chk

Project Manager:
Sam Vogt / Jacob Evans

Email: **svogt@tasman-geo.com; jevans@civitasresources.com**

Project Name: Kiyota 44-35, 3-35

Please Circle: PT (MT) CT ET

Phone: 610-405-9078

Lab Project #:

AFE# or C/C: 74410

Collected by (print): Gabrielle Mather, Angela Kirylo

Site/Facility ID #:

Billing Code #: 8523.198

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: STD

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	# of Containers	Full TABLE915 8ozClr-NoPres	Background TABLE915 8ozClr-NoPres	V8260 (GW TABLE915) 40mL Amb-HCl	Chloride, Sulfate 125mL HDPE-NoPres	TDS 1L-HDPE-NoPres	Remarks	Sample # (lab only)
3-35, 44-35-FZ-B01@4'	Grab	SS	4'	08/22/2024	12:25	2	X						-01

Analysis / Container / Preservative

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 # L1771286
J179

Acctnum: **CIVTASBCO**
Template: **T250702**
Prelogin: **P1068185**
PM: **824 - Chris Ward**
PB:
Shipped Via: **FedEX Ground**

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

Remarks:
pH, EC, SAR by saturated paste preparation method
Boron by hot water soluble preparation method
Table 915-1 Metals - As, Ba, Cd, Cu, Pb, Ni, Se, Ag, Zn, Cr VI

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

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: __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	If preservation required by Login: Date/Time
	8/22/24	1845			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
	8/23/24	1800	FedEX	2	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: / Condition: NCF / OK
			Jamaem	8-24-24 0900	

4771286

Fed Ex tracking #	Gun ID	Temperature
7316 3195 1290	TLA9	
7315 3195 1280		1.1 + 0.3 = 1.4
4047 5440 0912		1.1 + 0.3 = 1.4
4047 5440 0923		1.7 + 0.3 = 2.0
7315 3195 1279		2.5 + 0.3 = 2.8
4047 5440 0934		2.2 + 0.3 = 2.5
		3.3 + 0.3 = 3.5

Name

Date