

Energy and Carbon Management Commission

Sample Delivery Group: L1788185

Samples Received: 10/11/2024

Project Number:

Description: Jordan 34-4 AST

Report To: Laurel Anderson, Grace Rllins
4300 Cherry Creek Drive South.
Denver, CO 80246

Entire Report Reviewed By:



Chris Ward
Project Manager

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

Pace Analytical National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

Cp: Cover Page	1	¹ Cp
Tc: Table of Contents	2	
Ss: Sample Summary	3	² Tc
Cn: Case Narrative	4	
Sr: Sample Results	5	³ Ss
SS-01 @ 0-6" L1788185-01	5	
SS-02 @ 0-6" L1788185-02	6	⁴ Cn
Qc: Quality Control Summary	7	⁵ Sr
Volatile Organic Compounds (GC/MS) by Method 8260D	7	
Semi-Volatile Organic Compounds (GC) by Method 8015M	8	⁶ Qc
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	9	
Gl: Glossary of Terms	11	⁷ Gl
Al: Accreditations & Locations	12	⁸ Al
Sc: Sample Chain of Custody	13	⁹ Sc

SAMPLE SUMMARY

SS-01 @ 0-6" L1788185-01 Solid

Collected by
LA/GR

Collected date/time
10/10/24 12:03

Received date/time
10/11/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2384229	1	10/16/24 19:31	10/17/24 22:36	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2388330	40	10/24/24 00:37	10/25/24 05:31	KKS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2387569	1	10/23/24 08:02	10/24/24 21:16	JCH	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

SS-02 @ 0-6" L1788185-02 Solid

Collected by
LA/GR

Collected date/time
10/10/24 12:08

Received date/time
10/11/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2384229	1	10/16/24 19:31	10/17/24 22:56	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2388330	40	10/24/24 00:37	10/25/24 05:44	KKS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2387569	1	10/23/24 08:02	10/24/24 21:35	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



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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	1.63	C4	0.500	1	10/17/2024 22:36	WG2384229
Naphthalene	ND		0.00500	1	10/17/2024 22:36	WG2384229
Benzene	ND		0.00100	1	10/17/2024 22:36	WG2384229
Toluene	ND		0.00500	1	10/17/2024 22:36	WG2384229
Ethylbenzene	ND		0.00100	1	10/17/2024 22:36	WG2384229
Xylenes, Total	ND		0.00300	1	10/17/2024 22:36	WG2384229
1,2,4-Trimethylbenzene	0.00121		0.00100	1	10/17/2024 22:36	WG2384229
1,3,5-Trimethylbenzene	0.00184		0.00100	1	10/17/2024 22:36	WG2384229
(S) Toluene-d8	93.3		75.0-131		10/17/2024 22:36	WG2384229
(S) 4-Bromofluorobenzene	108		67.0-138		10/17/2024 22:36	WG2384229
(S) 1,2-Dichloroethane-d4	121		70.0-130		10/17/2024 22:36	WG2384229

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

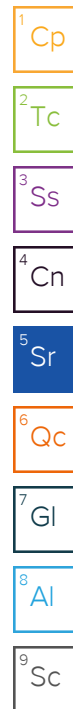
Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	3280		160	40	10/25/2024 05:31	WG2388330
C28-C36 Motor Oil Range	3010		160	40	10/25/2024 05:31	WG2388330
(S) o-Terphenyl	114	J7	18.0-148		10/25/2024 05:31	WG2388330

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	10/24/2024 21:16	WG2387569
Acenaphthene	ND		0.00600	1	10/24/2024 21:16	WG2387569
Acenaphthylene	ND		0.00600	1	10/24/2024 21:16	WG2387569
Benzo(a)anthracene	ND		0.00600	1	10/24/2024 21:16	WG2387569
Benzo(a)pyrene	ND		0.00600	1	10/24/2024 21:16	WG2387569
Benzo(b)fluoranthene	0.0426		0.00600	1	10/24/2024 21:16	WG2387569
Benzo(g,h,i)perylene	ND		0.00600	1	10/24/2024 21:16	WG2387569
Benzo(k)fluoranthene	ND		0.00600	1	10/24/2024 21:16	WG2387569
Chrysene	ND		0.00600	1	10/24/2024 21:16	WG2387569
Dibenz(a,h)anthracene	ND		0.00600	1	10/24/2024 21:16	WG2387569
Fluoranthene	0.0607		0.00600	1	10/24/2024 21:16	WG2387569
Fluorene	ND		0.00600	1	10/24/2024 21:16	WG2387569
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	10/24/2024 21:16	WG2387569
Naphthalene	ND		0.0200	1	10/24/2024 21:16	WG2387569
Phenanthrene	ND		0.00600	1	10/24/2024 21:16	WG2387569
Pyrene	0.0631		0.00600	1	10/24/2024 21:16	WG2387569
1-Methylnaphthalene	ND		0.0200	1	10/24/2024 21:16	WG2387569
2-Methylnaphthalene	ND		0.0200	1	10/24/2024 21:16	WG2387569
2-Chloronaphthalene	ND		0.0200	1	10/24/2024 21:16	WG2387569
(S) p-Terphenyl-d14	120		23.0-120		10/24/2024 21:16	WG2387569
(S) Nitrobenzene-d5	0.000	J2	14.0-149		10/24/2024 21:16	WG2387569
(S) 2-Fluorobiphenyl	99.0		34.0-125		10/24/2024 21:16	WG2387569

Sample Narrative:

L1788185-01 WG2387569: Surrogate failure due to matrix interference



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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	0.510	C4	0.500	1	10/17/2024 22:56	WG2384229
Naphthalene	ND		0.00500	1	10/17/2024 22:56	WG2384229
Benzene	ND		0.00100	1	10/17/2024 22:56	WG2384229
Toluene	ND		0.00500	1	10/17/2024 22:56	WG2384229
Ethylbenzene	ND		0.00100	1	10/17/2024 22:56	WG2384229
Xylenes, Total	ND		0.00300	1	10/17/2024 22:56	WG2384229
1,2,4-Trimethylbenzene	ND		0.00100	1	10/17/2024 22:56	WG2384229
1,3,5-Trimethylbenzene	ND		0.00100	1	10/17/2024 22:56	WG2384229
(S) Toluene-d8	98.8		75.0-131		10/17/2024 22:56	WG2384229
(S) 4-Bromofluorobenzene	111		67.0-138		10/17/2024 22:56	WG2384229
(S) 1,2-Dichloroethane-d4	117		70.0-130		10/17/2024 22:56	WG2384229

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

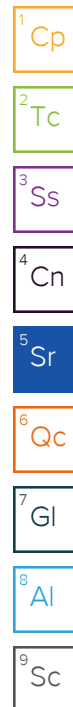
Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	2580		160	40	10/25/2024 05:44	WG2388330
C28-C36 Motor Oil Range	2330		160	40	10/25/2024 05:44	WG2388330
(S) o-Terphenyl	118	J7	18.0-148		10/25/2024 05:44	WG2388330

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	10/24/2024 21:35	WG2387569
Acenaphthene	ND		0.00600	1	10/24/2024 21:35	WG2387569
Acenaphthylene	ND		0.00600	1	10/24/2024 21:35	WG2387569
Benzo(a)anthracene	ND		0.00600	1	10/24/2024 21:35	WG2387569
Benzo(a)pyrene	ND		0.00600	1	10/24/2024 21:35	WG2387569
Benzo(b)fluoranthene	ND		0.00600	1	10/24/2024 21:35	WG2387569
Benzo(g,h,i)perylene	ND		0.00600	1	10/24/2024 21:35	WG2387569
Benzo(k)fluoranthene	ND		0.00600	1	10/24/2024 21:35	WG2387569
Chrysene	ND		0.00600	1	10/24/2024 21:35	WG2387569
Dibenz(a,h)anthracene	ND		0.00600	1	10/24/2024 21:35	WG2387569
Fluoranthene	ND		0.00600	1	10/24/2024 21:35	WG2387569
Fluorene	ND		0.00600	1	10/24/2024 21:35	WG2387569
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	10/24/2024 21:35	WG2387569
Naphthalene	ND		0.0200	1	10/24/2024 21:35	WG2387569
Phenanthrene	ND		0.00600	1	10/24/2024 21:35	WG2387569
Pyrene	ND		0.00600	1	10/24/2024 21:35	WG2387569
1-Methylnaphthalene	ND		0.0200	1	10/24/2024 21:35	WG2387569
2-Methylnaphthalene	ND		0.0200	1	10/24/2024 21:35	WG2387569
2-Chloronaphthalene	ND		0.0200	1	10/24/2024 21:35	WG2387569
(S) p-Terphenyl-d14	125	J1	23.0-120		10/24/2024 21:35	WG2387569
(S) Nitrobenzene-d5	0.000	J2	14.0-149		10/24/2024 21:35	WG2387569
(S) 2-Fluorobiphenyl	90.7		34.0-125		10/24/2024 21:35	WG2387569

Sample Narrative:

L1788185-02 WG2387569: Surrogate failure due to matrix interference



Method Blank (MB)

(MB) R4135099-4 10/17/24 22:00

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/MS) Low Fraction	U		0.183	0.500
Naphthalene	U		0.00498	0.00500
Benzene	U		0.000375	0.00100
Toluene	U		0.00123	0.00500
Ethylbenzene	U		0.000300	0.00100
Xylenes, Total	U		0.000500	0.00300
1,2,4-Trimethylbenzene	U		0.000211	0.00100
1,3,5-Trimethylbenzene	U		0.000266	0.00100
(S) Toluene-d8	98.9			75.0-131
(S) 4-Bromofluorobenzene	76.7			67.0-138
(S) 1,2-Dichloroethane-d4	108			70.0-130

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

(LCS) R4135099-1 10/17/24 19:42 • (LCSD) R4135099-2 10/17/24 20:02

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 %
Naphthalene	0.0250	0.0230	0.0274	92.0	110	59.0-130			17.5	20
Benzene	0.0250	0.0227	0.0239	90.8	95.6	70.0-123			5.15	20
Toluene	0.0250	0.0218	0.0237	87.2	94.8	75.0-121			8.35	20
Ethylbenzene	0.0250	0.0226	0.0250	90.4	100	74.0-126			10.1	20
Xylenes, Total	0.0750	0.0710	0.0775	94.7	103	72.0-127			8.75	20
1,2,4-Trimethylbenzene	0.0250	0.0263	0.0284	105	114	70.0-126			7.68	20
1,3,5-Trimethylbenzene	0.0250	0.0271	0.0294	108	118	73.0-127			8.14	20
(S) Toluene-d8				90.8	93.5	75.0-131				
(S) 4-Bromofluorobenzene				80.7	82.3	67.0-138				
(S) 1,2-Dichloroethane-d4				115	122	70.0-130				

Laboratory Control Sample (LCS)

(LCS) R4135099-3 10/17/24 20:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/MS) Low Fraction	5.00	4.83	96.6	52.0-154	
(S) Toluene-d8			91.1	75.0-131	
(S) 4-Bromofluorobenzene			89.1	67.0-138	
(S) 1,2-Dichloroethane-d4			121	70.0-130	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4137575-1 10/25/24 00:32

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C36 Motor Oil Range	U		0.274	4.00
(S) o-Terphenyl	68.5			18.0-148

Laboratory Control Sample (LCS)

(LCS) R4137575-2 10/25/24 00:45

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	36.8	73.6	50.0-150	
(S) o-Terphenyl			74.8	18.0-148	

L1788251-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1788251-04 10/25/24 00:58 • (MS) R4137575-3 10/25/24 01:11 • (MSD) R4137575-4 10/25/24 01:24

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	50.0	ND	31.7	39.2	63.4	78.7	1	50.0-150		J3	21.2	20
(S) o-Terphenyl					59.5	73.9		18.0-148				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4139064-2 10/24/24 13:46

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.00230	0.00600
Acenaphthene	U		0.00209	0.00600
Acenaphthylene	U		0.00216	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(g,h,i)perylene	U		0.00177	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
Naphthalene	U		0.00408	0.0200
Phenanthrene	U		0.00231	0.00600
Pyrene	U		0.00200	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
2-Chloronaphthalene	U		0.00466	0.0200
(S) p-Terphenyl-d14	109			23.0-120
(S) Nitrobenzene-d5	95.7			14.0-149
(S) 2-Fluorobiphenyl	99.0			34.0-125

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS)

(LCS) R4139064-1 10/24/24 13:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0545	68.1	50.0-126	
Acenaphthene	0.0800	0.0540	67.5	50.0-120	
Acenaphthylene	0.0800	0.0543	67.9	50.0-120	
Benzo(a)anthracene	0.0800	0.0550	68.8	45.0-120	
Benzo(a)pyrene	0.0800	0.0549	68.6	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0617	77.1	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0638	79.8	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0588	73.5	49.0-125	
Chrysene	0.0800	0.0642	80.3	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0641	80.1	47.0-125	
Fluoranthene	0.0800	0.0608	76.0	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R4139064-1 10/24/24 13:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0605	75.6	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0575	71.9	46.0-125	
Naphthalene	0.0800	0.0563	70.4	50.0-120	
Phenanthrene	0.0800	0.0593	74.1	47.0-120	
Pyrene	0.0800	0.0586	73.3	43.0-123	
1-Methylnaphthalene	0.0800	0.0589	73.6	51.0-121	
2-Methylnaphthalene	0.0800	0.0550	68.8	50.0-120	
2-Chloronaphthalene	0.0800	0.0582	72.8	50.0-120	
(S) p-Terphenyl-d14			104	23.0-120	
(S) Nitrobenzene-d5			91.1	14.0-149	
(S) 2-Fluorobiphenyl			94.0	34.0-125	

L1788544-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1788544-03 10/24/24 19:58 • (MS) R4139064-3 10/24/24 20:17 • (MSD) R4139064-4 10/24/24 20:37

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 %
Anthracene	0.0788	ND	0.0363	0.0648	46.1	84.4	1	10.0-145		J3	56.4	30
Acenaphthene	0.0788	0.0339	0.0607	0.0979	34.0	83.3	1	14.0-127		J3	46.9	27
Acenaphthylene	0.0788	ND	0.0375	0.0650	47.6	84.6	1	21.0-124		J3	53.7	25
Benzo(a)anthracene	0.0788	ND	0.0361	0.0640	45.8	83.3	1	10.0-139		J3	55.7	30
Benzo(a)pyrene	0.0788	ND	0.0381	0.0688	48.4	89.6	1	10.0-141		J3	57.4	31
Benzo(b)fluoranthene	0.0788	ND	0.0414	0.0761	52.5	99.1	1	10.0-140		J3	59.1	36
Benzo(g,h,i)perylene	0.0788	ND	0.0468	0.0817	59.4	106	1	10.0-140		J3	54.3	33
Benzo(k)fluoranthene	0.0788	ND	0.0405	0.0731	51.4	95.2	1	10.0-137		J3	57.4	31
Chrysene	0.0788	ND	0.0437	0.0778	55.5	101	1	10.0-145		J3	56.1	30
Dibenz(a,h)anthracene	0.0788	ND	0.0428	0.0768	54.3	100	1	10.0-132		J3	56.9	31
Fluoranthene	0.0788	0.0108	0.0443	0.0785	42.5	88.2	1	10.0-153		J3	55.7	33
Fluorene	0.0788	0.0701	0.0801	0.124	12.7	70.2	1	11.0-130		J3	43.0	29
Indeno(1,2,3-cd)pyrene	0.0788	ND	0.0373	0.0684	47.3	89.1	1	10.0-137		J3	58.8	32
Naphthalene	0.0788	ND	0.0506	0.0787	52.9	90.8	1	10.0-135		J3	43.5	27
Phenanthrene	0.0788	0.0917	0.0890	0.144	0.000	68.1	1	10.0-144	J6	J3	47.2	31
Pyrene	0.0788	0.00630	0.0458	0.0795	50.1	95.3	1	10.0-148		J3	53.8	35
1-Methylnaphthalene	0.0788	ND	0.0510	0.0821	51.4	93.2	1	10.0-142		J3	46.7	28
2-Methylnaphthalene	0.0788	ND	0.0542	0.0827	45.6	83.9	1	10.0-137		J3	41.6	28
2-Chloronaphthalene	0.0788	ND	0.0438	0.0750	55.6	97.6	1	29.0-120		J3	52.5	24
(S) p-Terphenyl-d14					70.6	135		23.0-120		J1		
(S) Nitrobenzene-d5					58.5	110		14.0-149				
(S) 2-Fluorobiphenyl					67.5	126		34.0-125		J1		

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

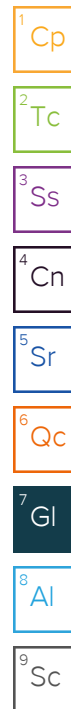
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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.
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
C4	The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Data is likely to show a low bias concerning the result.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.



ACCREDITATIONS & LOCATIONS

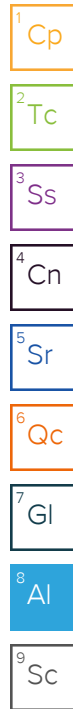
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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.



[illegible]