Pace Analytical®

Pace Analytical Services, LLC
2026.01.12 13:12:24 -06'00'
Document is certified

ANALYTICAL REPORT

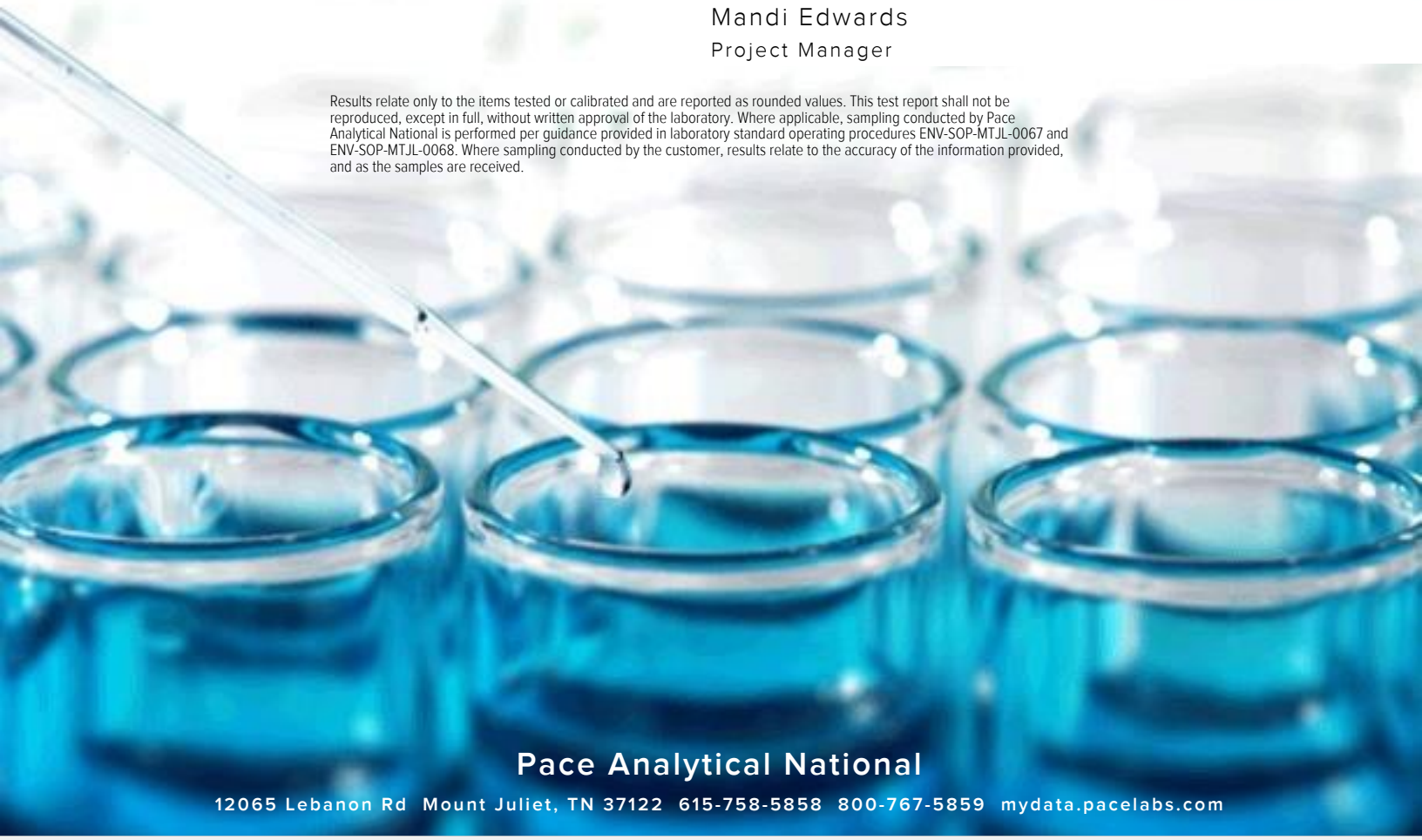
January 12, 2026

Civitas - CO

Sample Delivery Group:	L1932750
Samples Received:	01/06/2026
Project Number:	203724474 TASK 1BO-3
Description:	Dutch Lake 24-22H
Site:	REM# 43215
Report To:	Civitas - Stantec 6855 W. 118th Ave Broomfield, CO 80020

Entire Report Reviewed By:

Mandi Edwards
Project Manager



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

TABLE OF CONTENTS

BG01@3 L1932750-01

Collected by: Sam O'Boyle | Collected date/time: 01/05/26 13:30 | Received date/time: 01/06/26 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2670393	1	01/08/26 12:21	01/08/26 12:21	BAG	Mt. Juliet, TN
Total Solids by Method 2540 G-2011	WG2670115	1	01/07/26 09:11	01/07/26 09:18	MT	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2670015	1	01/06/26 21:44	01/07/26 15:57	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D (S-1.10)	WG2671115	1	01/08/26 09:08	01/08/26 10:25	AL	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod (S-1.20)	WG2671119	1	01/08/26 09:11	01/08/26 14:48	AL	Mt. Juliet, TN
Metals (ICP) by Method 6010D (S-7.10)	WG2670389	1	01/07/26 11:16	01/07/26 13:44	UNP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2670167	1	01/07/26 07:36	01/07/26 21:05	TMT	Mt. Juliet, TN

BG01@4 L1932750-02

Collected by: Sam O'Boyle | Collected date/time: 01/05/26 13:40 | Received date/time: 01/06/26 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2670393	1	01/08/26 12:24	01/08/26 12:24	BAG	Mt. Juliet, TN
Total Solids by Method 2540 G-2011	WG2670115	1	01/07/26 09:11	01/07/26 09:18	MT	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2670015	1	01/06/26 21:44	01/07/26 16:08	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D (S-1.10)	WG2671115	1	01/08/26 09:08	01/08/26 10:25	AL	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod (S-1.20)	WG2671119	1	01/08/26 09:11	01/08/26 14:48	AL	Mt. Juliet, TN
Metals (ICP) by Method 6010D (S-7.10)	WG2670389	1	01/07/26 11:16	01/07/26 13:47	UNP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2670167	1	01/07/26 07:36	01/07/26 21:08	TMT	Mt. Juliet, TN

BG01@5 L1932750-03

Collected by: Sam O'Boyle | Collected date/time: 01/05/26 13:50 | Received date/time: 01/06/26 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2670393	1	01/08/26 12:26	01/08/26 12:26	BAG	Mt. Juliet, TN
Total Solids by Method 2540 G-2011	WG2670115	1	01/07/26 09:11	01/07/26 09:18	MT	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2670015	1	01/06/26 21:44	01/07/26 16:19	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D (S-1.10)	WG2671115	1	01/08/26 09:08	01/08/26 10:25	AL	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod (S-1.20)	WG2671119	1	01/08/26 09:11	01/08/26 14:48	AL	Mt. Juliet, TN
Metals (ICP) by Method 6010D (S-7.10)	WG2670389	1	01/07/26 11:16	01/07/26 13:56	UNP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2670167	1	01/07/26 07:36	01/07/26 21:12	TMT	Mt. Juliet, TN

BG02@3 L1932750-04

Collected by: Sam O'Boyle | Collected date/time: 01/05/26 14:05 | Received date/time: 01/06/26 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2670393	1	01/08/26 12:28	01/08/26 12:28	BAG	Mt. Juliet, TN
Total Solids by Method 2540 G-2011	WG2670115	1	01/07/26 09:11	01/07/26 09:18	MT	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2670015	1	01/06/26 21:44	01/07/26 16:30	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D (S-1.10)	WG2671115	1	01/08/26 09:08	01/08/26 10:25	AL	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod (S-1.20)	WG2671119	1	01/08/26 09:11	01/08/26 14:48	AL	Mt. Juliet, TN
Metals (ICP) by Method 6010D (S-7.10)	WG2670389	1	01/07/26 11:16	01/07/26 14:00	UNP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2670167	1.06	01/07/26 07:36	01/07/26 21:15	TMT	Mt. Juliet, TN

BG02@4 L1932750-05

Collected by: Sam O'Boyle | Collected date/time: 01/05/26 14:15 | Received date/time: 01/06/26 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2670393	1	01/08/26 11:57	01/08/26 11:57	BAG	Mt. Juliet, TN
Total Solids by Method 2540 G-2011	WG2670115	1	01/07/26 09:11	01/07/26 09:18	MT	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2670015	1	01/06/26 21:44	01/07/26 16:41	SET	Mt. Juliet, TN
Wet Chemistry by Method 9045D (S-1.10)	WG2671115	1	01/08/26 09:08	01/08/26 10:25	AL	Mt. Juliet, TN

BG02@4 L1932750-05

Collected by: Sam O'Boyle
Collected date/time: 01/05/26 14:15
Received date/time: 01/06/26 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9050AMod (S-1.20)	WG2671119	1	01/08/26 09:11	01/08/26 14:48	AL	Mt. Juliet, TN
Metals (ICP) by Method 6010D (S-7.10)	WG2670389	1	01/07/26 11:16	01/07/26 14:03	UNP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2670167	1	01/07/26 07:36	01/07/26 21:18	TMT	Mt. Juliet, TN

BG02@5 L1932750-06

Collected by: Sam O'Boyle
Collected date/time: 01/05/26 14:25
Received date/time: 01/06/26 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2670393	1	01/08/26 11:59	01/08/26 11:59	BAG	Mt. Juliet, TN
Total Solids by Method 2540 G-2011	WG2670115	1	01/07/26 09:11	01/07/26 09:18	MT	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2670066	1	01/07/26 11:38	01/08/26 13:25	EKB	Mt. Juliet, TN
Wet Chemistry by Method 9045D (S-1.10)	WG2671115	1	01/08/26 09:08	01/08/26 10:25	AL	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod (S-1.20)	WG2671119	1	01/08/26 09:11	01/08/26 14:48	AL	Mt. Juliet, TN
Metals (ICP) by Method 6010D (S-7.10)	WG2670389	1	01/07/26 11:16	01/07/26 14:06	UNP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2670167	1.02	01/07/26 07:36	01/07/26 21:21	TMT	Mt. Juliet, TN

Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.

Mandi Edwards
Project Manager

Project Comments

Samples for pH in this report are out of hold time per EPA standards. The Western States Manual does not define a hold time after the Saturated Paste preparation. Pace is working with ECMC to determine hold time.

Wet Chemistry by Method 7199

The sample matrix interfered with the ability to make any accurate determination; spike value is low.

Batch	Lab Sample ID	Analytes
WG2670015	(MS) R4322941-3, (MS) R4322941-5, (MSD) R4322941-4	Hexavalent Chromium
WG2670066	(MS) R4322938-4, (MSD) R4322938-5	Hexavalent Chromium

The associated batch QC was outside the established quality control range for precision.

Batch	Lab Sample ID	Analytes
WG2670015	(MSD) R4322941-4	Hexavalent Chromium

Metals (ICPMS) by Method 6020B

The sample matrix interfered with the ability to make any accurate determination; spike value is high.

Batch	Lab Sample ID	Analytes
WG2670167	(MS) R4322455-5, (MSD) R4322455-6	Zinc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.145		1	01/08/2026 12:21	WG2670393

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	94.2		1	01/07/2026 09:18	WG2670115

Wet Chemistry by Method 7199

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.212	1	01/07/2026 15:57	WG2670015

Wet Chemistry by Method 9045D (S-1.10)

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.37		1	01/08/2026 10:25	WG2671115

Sample Narrative:

L1932750-01 WG2671115: 8.37 at 20C

Wet Chemistry by Method 9050AMod (S-1.20)

Analyte	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	222	umhos/cm		10.0	1	01/08/2026 14:48	WG2671119

Sample Narrative:

L1932750-01 WG2671119: at 25C

Metals (ICP) by Method 6010D (S-7.10)

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		0.100	1	01/07/2026 13:44	WG2670389

Metals (ICPMS) by Method 6020B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	4.46		0.106	1	01/07/2026 21:05	WG2670167
Barium	358		10.6	1	01/07/2026 21:05	WG2670167
Cadmium	0.159		0.106	1	01/07/2026 21:05	WG2670167
Copper	ND		10.6	1	01/07/2026 21:05	WG2670167
Lead	ND		10.6	1	01/07/2026 21:05	WG2670167
Nickel	ND		10.6	1	01/07/2026 21:05	WG2670167
Selenium	0.995		0.106	1	01/07/2026 21:05	WG2670167
Silver	ND		0.531	1	01/07/2026 21:05	WG2670167
Zinc	ND		53.1	1	01/07/2026 21:05	WG2670167

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.365		1	01/08/2026 12:24	WG2670393

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	94.3		1	01/07/2026 09:18	WG2670115

Wet Chemistry by Method 7199

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.212	1	01/07/2026 16:08	WG2670015

Wet Chemistry by Method 9045D (S-1.10)

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.43		1	01/08/2026 10:25	WG2671115

Sample Narrative:

L1932750-02 WG2671115: 8.43 at 19.9C

Wet Chemistry by Method 9050AMod (S-1.20)

Analyte	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	227	umhos/cm		10.0	1	01/08/2026 14:48	WG2671119

Sample Narrative:

L1932750-02 WG2671119: at 25C

Metals (ICP) by Method 6010D (S-7.10)

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		0.100	1	01/07/2026 13:47	WG2670389

Metals (ICPMS) by Method 6020B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	4.90		0.106	1	01/07/2026 21:08	WG2670167
Barium	284		10.6	1	01/07/2026 21:08	WG2670167
Cadmium	0.191		0.106	1	01/07/2026 21:08	WG2670167
Copper	ND		10.6	1	01/07/2026 21:08	WG2670167
Lead	ND		10.6	1	01/07/2026 21:08	WG2670167
Nickel	ND		10.6	1	01/07/2026 21:08	WG2670167
Selenium	0.962		0.106	1	01/07/2026 21:08	WG2670167
Silver	ND		0.530	1	01/07/2026 21:08	WG2670167
Zinc	ND		53.0	1	01/07/2026 21:08	WG2670167

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	1.16		1	01/08/2026 12:26	WG2670393

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	96.8		1	01/07/2026 09:18	WG2670115

Wet Chemistry by Method 7199

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.207	1	01/07/2026 16:19	WG2670015

Wet Chemistry by Method 9045D (S-1.10)

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.45		1	01/08/2026 10:25	WG2671115

Sample Narrative:

L1932750-03 WG2671115: 8.45 at 20C

Wet Chemistry by Method 9050AMod (S-1.20)

Analyte	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	322	umhos/cm		10.0	1	01/08/2026 14:48	WG2671119

Sample Narrative:

L1932750-03 WG2671119: at 25C

Metals (ICP) by Method 6010D (S-7.10)

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		0.100	1	01/07/2026 13:56	WG2670389

Metals (ICPMS) by Method 6020B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.38		0.103	1	01/07/2026 21:12	WG2670167
Barium	1710		10.3	1	01/07/2026 21:12	WG2670167
Cadmium	0.274		0.103	1	01/07/2026 21:12	WG2670167
Copper	ND		10.3	1	01/07/2026 21:12	WG2670167
Lead	ND		10.3	1	01/07/2026 21:12	WG2670167
Nickel	ND		10.3	1	01/07/2026 21:12	WG2670167
Selenium	1.09		0.103	1	01/07/2026 21:12	WG2670167
Silver	ND		0.517	1	01/07/2026 21:12	WG2670167
Zinc	ND		51.7	1	01/07/2026 21:12	WG2670167

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.257		1	01/08/2026 12:28	WG2670393

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	94.1		1	01/07/2026 09:18	WG2670115

Wet Chemistry by Method 7199

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.213	1	01/07/2026 16:30	WG2670015

Wet Chemistry by Method 9045D (S-1.10)

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.37		1	01/08/2026 10:25	WG2671115

Sample Narrative:

L1932750-04 WG2671115: 8.37 at 20.2C

Wet Chemistry by Method 9050AMod (S-1.20)

Analyte	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	229	umhos/cm		10.0	1	01/08/2026 14:48	WG2671119

Sample Narrative:

L1932750-04 WG2671119: at 25C

Metals (ICP) by Method 6010D (S-7.10)

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		0.100	1	01/07/2026 14:00	WG2670389

Metals (ICPMS) by Method 6020B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	4.74		0.113	1.06	01/07/2026 21:15	WG2670167
Barium	250		11.3	1.06	01/07/2026 21:15	WG2670167
Cadmium	0.169		0.113	1.06	01/07/2026 21:15	WG2670167
Copper	ND		11.3	1.06	01/07/2026 21:15	WG2670167
Lead	ND		11.3	1.06	01/07/2026 21:15	WG2670167
Nickel	ND		11.3	1.06	01/07/2026 21:15	WG2670167
Selenium	0.999		0.113	1.06	01/07/2026 21:15	WG2670167
Silver	ND		0.563	1.06	01/07/2026 21:15	WG2670167
Zinc	ND		56.3	1.06	01/07/2026 21:15	WG2670167

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.521		1	01/08/2026 11:57	WG2670393

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	94.7		1	01/07/2026 09:18	WG2670115

Wet Chemistry by Method 7199

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.211	1	01/07/2026 16:41	WG2670015

Wet Chemistry by Method 9045D (S-1.10)

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.42		1	01/08/2026 10:25	WG2671115

Sample Narrative:

L1932750-05 WG2671115: 8.42 at 19.9C

Wet Chemistry by Method 9050AMod (S-1.20)

Analyte	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	289	umhos/cm		10.0	1	01/08/2026 14:48	WG2671119

Sample Narrative:

L1932750-05 WG2671119: at 25C

Metals (ICP) by Method 6010D (S-7.10)

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		0.100	1	01/07/2026 14:03	WG2670389

Metals (ICPMS) by Method 6020B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	4.87		0.106	1	01/07/2026 21:18	WG2670167
Barium	260		10.6	1	01/07/2026 21:18	WG2670167
Cadmium	0.140		0.106	1	01/07/2026 21:18	WG2670167
Copper	ND		10.6	1	01/07/2026 21:18	WG2670167
Lead	ND		10.6	1	01/07/2026 21:18	WG2670167
Nickel	ND		10.6	1	01/07/2026 21:18	WG2670167
Selenium	0.846		0.106	1	01/07/2026 21:18	WG2670167
Silver	ND		0.528	1	01/07/2026 21:18	WG2670167
Zinc	ND		52.8	1	01/07/2026 21:18	WG2670167

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.706		1	01/08/2026 11:59	WG2670393

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	93.7		1	01/07/2026 09:18	WG2670115

Wet Chemistry by Method 7199

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.214	1	01/08/2026 13:25	WG2670066

Wet Chemistry by Method 9045D (S-1.10)

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.34		1	01/08/2026 10:25	WG2671115

Sample Narrative:

L1932750-06 WG2671115: 8.34 at 20C

Wet Chemistry by Method 9050AMod (S-1.20)

Analyte	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	335	umhos/cm		10.0	1	01/08/2026 14:48	WG2671119

Sample Narrative:

L1932750-06 WG2671119: at 25C

Metals (ICP) by Method 6010D (S-7.10)

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		0.100	1	01/07/2026 14:06	WG2670389

Metals (ICPMS) by Method 6020B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	4.54		0.109	1.02	01/07/2026 21:21	WG2670167
Barium	127		10.9	1.02	01/07/2026 21:21	WG2670167
Cadmium	0.140		0.109	1.02	01/07/2026 21:21	WG2670167
Copper	ND		10.9	1.02	01/07/2026 21:21	WG2670167
Lead	ND		10.9	1.02	01/07/2026 21:21	WG2670167
Nickel	ND		10.9	1.02	01/07/2026 21:21	WG2670167
Selenium	0.880		0.109	1.02	01/07/2026 21:21	WG2670167
Silver	ND		0.545	1.02	01/07/2026 21:21	WG2670167
Zinc	ND		54.5	1.02	01/07/2026 21:21	WG2670167

Method Blank (MB)

(MB) R4322360-1 01/07/26 09:18

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1932753-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1932753-01 01/07/26 09:18 • (DUP) R4322360-3 01/07/26 09:18

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	96.4	96.3	1	0.173		10

Laboratory Control Sample (LCS)

(LCS) R4322360-2 01/07/26 09:18

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	90.0-110	

QUALITY CONTROL SUMMARY

L1932750-01,02,03,04,05

Method Blank (MB)

(MB) R4322941-1 01/07/26 10:27

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Hexavalent Chromium	ND		0.200	0.200

L1932697-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1932697-04 01/07/26 13:13 • (DUP) R4322941-7 01/07/26 13:24

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

L1932712-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1932712-01 01/07/26 14:40 • (DUP) R4322941-8 01/07/26 14:51

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

Laboratory Control Sample (LCS)

(LCS) R4322941-2 01/07/26 10:37

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Hexavalent Chromium	10.0	10.1	101	80.0-120	

L1932689-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1932689-01 01/07/26 10:48 • (MS) R4322941-3 01/07/26 10:59 • (MSD) R4322941-4 01/07/26 11:10

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Hexavalent Chromium	24.3	0.307	11.5	17.2	45.9	69.3	1	75.0-125	J6	J3 J6	39.6	20

L1932689-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1932689-01 01/07/26 10:48 • (MS) R4322941-5 01/07/26 11:21

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	774	0.307	462	59.7	50	75.0-125	J6

QUALITY CONTROL SUMMARY

L1932750-06

Method Blank (MB)

(MB) R4322938-1 01/08/26 09:40

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Hexavalent Chromium	ND		0.200	0.200

L1933096-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1933096-01 01/08/26 14:53 • (DUP) R4322938-8 01/08/26 15:05

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

L1932689-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1932689-02 01/09/26 12:03 • (DUP) R4323063-1 01/09/26 12:16

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Hexavalent Chromium	0.814	0.816	1	0.210		20

Laboratory Control Sample (LCS)

(LCS) R4322938-2 01/08/26 09:52

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	

L1932740-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1932740-03 01/08/26 11:20 • (MS) R4322938-4 01/08/26 11:32 • (MSD) R4322938-5 01/08/26 12:10

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Hexavalent Chromium	23.0	ND	16.4	16.2	71.4	70.5	1	75.0-125	J6	J6	1.32	20

L1932740-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1932740-03 01/08/26 11:20 • (MS) R4322938-6 01/08/26 12:22

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	746	ND	664	89.1	50	75.0-125	

L1932654-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1932654-01 01/08/26 10:25 • (DUP) R4322614-2 01/08/26 10:25

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.03	8.04	1	0.124		1

Sample Narrative:

OS: 8.03 at 19.9C

DUP: 8.04 at 19.9C

L1932750-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1932750-06 01/08/26 10:25 • (DUP) R4322614-3 01/08/26 10:25

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.34	8.24	1	1.21		1

Sample Narrative:

OS: 8.34 at 20C

DUP: 8.24 at 20C

Laboratory Control Sample (LCS)

(LCS) R4322614-1 01/08/26 10:25

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 at 19.2C

QUALITY CONTROL SUMMARY

L1932750-01,02,03,04,05,06

Method Blank (MB)

(MB) R4322778-1 01/08/26 14:48

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

L1932654-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1932654-02 01/08/26 14:48 • (DUP) R4322778-3 01/08/26 14:48

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	1130	1120	1	1.06		20

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

L1932750-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1932750-05 01/08/26 14:48 • (DUP) R4322778-4 01/08/26 14:48

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	289	282	1	2.31		20

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

Laboratory Control Sample (LCS)

(LCS) R4322778-2 01/08/26 14:48

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	483	501	104	90.0-110	

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R4322313-1 01/07/26 13:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Hot Water Sol. Boron	ND		0.0199	0.100

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

(LCS) R4322313-2 01/07/26 13:22 • (LCSD) R4322313-3 01/07/26 13:25

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	0.969	0.970	96.9	97.0	80.0-120			0.0376	20

QUALITY CONTROL SUMMARY

L1932750-01,02,03,04,05,06

Method Blank (MB)

(MB) R4322455-1 01/07/26 19:38

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	ND		0.100	0.100
Barium	ND		10.0	10.0
Cadmium	ND		0.100	0.100
Copper	ND		10.0	10.0
Lead	ND		10.0	10.0
Nickel	ND		10.0	10.0
Selenium	ND		0.100	0.100
Silver	ND		0.500	0.500
Zinc	ND		50.0	50.0

Laboratory Control Sample (LCS)

(LCS) R4322455-2 01/07/26 19:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	102	102	80.0-120	
Barium	100	97.5	97.5	80.0-120	
Cadmium	100	107	107	80.0-120	
Copper	100	107	107	80.0-120	
Lead	100	101	101	80.0-120	
Nickel	100	108	108	80.0-120	
Selenium	100	100	100	80.0-120	
Silver	20.0	20.1	101	80.0-120	
Zinc	100	103	103	80.0-120	

L1932697-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1932697-03 01/07/26 19:44 • (MS) R4322455-5 01/07/26 19:54 • (MSD) R4322455-6 01/07/26 19:57

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	6.26	97.9	105	91.6	98.9	1	75.0-125			7.23	20
Barium	100	51.8	147	150	95.4	98.3	1	75.0-125			1.89	20
Cadmium	100	ND	94.9	100	94.9	100	1	75.0-125			5.66	20
Copper	100	16.9	109	110	92.5	93.4	1	75.0-125			0.787	20
Lead	100	ND	101	106	101	106	1	75.0-125			5.27	20
Nickel	100	ND	103	107	103	107	1	75.0-125			4.37	20
Selenium	100	1.12	92.5	98.3	91.3	97.2	1	75.0-125			6.16	20
Silver	20.0	ND	18.2	19.1	90.9	95.3	1	75.0-125			4.66	20
Zinc	100	ND	128	129	128	129	1	75.0-125	J5	J5	0.345	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
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.
U (Radiochemistry)	Result + Error < MDA.
J (Radiochemistry)	Result < MDA; Result + Error > MDA.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J3	The associated batch QC was outside the established quality control range for precision.
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.

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:
Civitas - CO
6855 W. 118th Avenue
Broomfield, CO 80020

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

Report to:
Civitas 610-408-9078

Email To: chris.ray@stantec.com
robert.hammer@stantec.com
sam.oboyle@stantec.com

Project Description:
Dutch Lake 24-22H

City/State Collected: CO

Please Circle: PT (MT) CT ET

Phone:

Client Project #
203724474 task 100.040

Lab Project #
CivitasBCO-Stantec

Collected by (print):
Sam O'Boyle

Site/Facility ID #
REM#43215

P.O. #
AFE 250530

Collected by (signature):
Sam O'Boyle

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 X STD TAT

Quote #
Mailer Mirror ~~8520.184~~

Date Results Needed

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Full Table 915-1	X Background table 915-1	Remarks	Sample # (lab only)
BG01@3	G	SS	3	1-5-26	1330	2		X		-01
BG01@4			4		1340					-02
BG01@5			5		1350					-03
BG02@3			3		1405					-04
BG02@4			4		1415					-05
BG02@5			5		1425					-06

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

12065 Lebanon Rd Mount Juliet, TN 37122
Phone: 615-758-5858 Alt: 800-767-5859

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 # L1932750

C176

Acctnum: CivitasBCO
Template: T269922
Prelogin: P1137690
PM: 824 - Chris Ward
PB:

Shipped Via:

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

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

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)
Sam O'Boyle	1-5-26	1530	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	1.5.26	1800	SWA
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			Vak Rue

Trip Blank Received: Yes (No) HCL / MeoH TBR

Temp: TL 4.4 °C Bottles Received: 12

Date: 1/6/26 Time: 0800

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK