

Civitas - CO

Sample Delivery Group: L1885456
Samples Received: 08/06/2025
Project Number: 24598
Description: Zisch 23-6

Report To: Civitas-Tasman
4725 Independence
Suite 100
Wheat Ridge, CO 80033

Entire Report Reviewed By:



Mandi Edwards
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 National

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SAMPLE SUMMARY

BG01@4' L1885456-01

Collected by Sean Clarke/Ben Long
 Collected date/time 08/04/25 12:00
 Received date/time 08/06/25 12:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2578706	1	08/14/25 10:36	08/14/25 10:36	MAP	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2585605	1	08/22/25 16:29	09/09/25 07:42	ERP	Mt. Juliet, TN
Wet Chemistry by Method 9045D (S-1.10)	WG2580935	1	08/25/25 13:16	08/25/25 14:27	BJM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod (S-1.20)	WG2580938	1	08/25/25 13:06	08/26/25 11:56	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010D (S-7.10)	WG2578708	1	08/13/25 12:28	08/13/25 16:58	UNP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2576536	5	08/12/25 08:15	08/18/25 01:03	JDB	Mt. Juliet, TN

1
Cp

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Tc

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Ss

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Cn

5
Sr

6
Qc

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Gl

8
Al

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Sc

BG01@6' L1885456-02

Collected by Sean Clarke/Ben Long
 Collected date/time 08/04/25 12:05
 Received date/time 08/06/25 12:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2578706	1	08/14/25 10:38	08/14/25 10:38	MAP	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2585605	1	08/22/25 16:29	09/09/25 07:53	ERP	Mt. Juliet, TN
Wet Chemistry by Method 9045D (S-1.10)	WG2580942	1	08/25/25 13:04	08/25/25 15:18	BJM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod (S-1.20)	WG2580940	1	08/25/25 13:05	08/26/25 12:20	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010D (S-7.10)	WG2578708	1	08/13/25 12:28	08/13/25 17:01	UNP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2576536	5	08/12/25 08:15	08/18/25 01:06	JDB	Mt. Juliet, TN

BG02@4' L1885456-03

Collected by Sean Clarke/Ben Long
 Collected date/time 08/04/25 12:10
 Received date/time 08/06/25 12:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2578706	1	08/14/25 10:40	08/14/25 10:40	MAP	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2585605	1	08/22/25 16:29	09/09/25 08:03	ERP	Mt. Juliet, TN
Wet Chemistry by Method 9045D (S-1.10)	WG2580942	1	08/25/25 13:04	08/25/25 15:18	BJM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod (S-1.20)	WG2580940	1	08/25/25 13:05	08/26/25 12:20	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010D (S-7.10)	WG2578708	1	08/13/25 12:28	08/13/25 17:04	UNP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2576536	5	08/12/25 08:15	08/18/25 01:09	JDB	Mt. Juliet, TN

BG02@6' L1885456-04

Collected by Sean Clarke/Ben Long
 Collected date/time 08/04/25 12:15
 Received date/time 08/06/25 12:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2578706	1	08/14/25 10:41	08/14/25 10:41	MAP	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2585605	1	08/22/25 16:29	09/09/25 08:14	ERP	Mt. Juliet, TN
Wet Chemistry by Method 9045D (S-1.10)	WG2580942	1	08/25/25 13:04	08/25/25 15:18	BJM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod (S-1.20)	WG2580940	1	08/25/25 13:05	08/26/25 12:20	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010D (S-7.10)	WG2578708	1	08/13/25 12:28	08/13/25 17:07	UNP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2576536	5	08/12/25 08:15	08/18/25 01:19	JDB	Mt. Juliet, TN

BG03@4' L1885456-05

Collected by Sean Clarke/Ben Long
 Collected date/time 08/04/25 12:20
 Received date/time 08/06/25 12:00

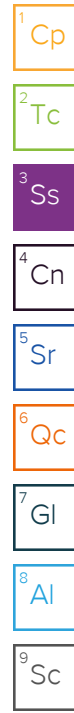
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2578706	1	08/14/25 10:43	08/14/25 10:43	MAP	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2585605	1	08/22/25 16:29	09/09/25 08:24	ERP	Mt. Juliet, TN
Wet Chemistry by Method 9045D (S-1.10)	WG2580942	1	08/25/25 13:04	08/25/25 15:18	BJM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod (S-1.20)	WG2580940	1	08/25/25 13:05	08/26/25 12:20	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010D (S-7.10)	WG2578708	1	08/13/25 12:28	08/13/25 17:10	UNP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2576536	5	08/12/25 08:15	08/18/25 01:22	JDB	Mt. Juliet, TN

SAMPLE SUMMARY

BG03@6' L1885456-06

Collected by Sean Clarke/Ben Long
 Collected date/time 08/04/25 12:25
 Received date/time 08/06/25 12:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2578706	1	08/14/25 10:45	08/14/25 10:45	MAP	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2585605	1	08/22/25 16:29	09/09/25 08:45	ERP	Mt. Juliet, TN
Wet Chemistry by Method 9045D (S-1.10)	WG2580932	1	08/17/25 14:11	08/17/25 14:49	BJM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod (S-1.20)	WG2580929	1	08/17/25 14:12	08/17/25 17:32	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010D (S-7.10)	WG2578708	1	08/13/25 12:28	08/13/25 15:48	UNP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2576538	5	08/12/25 08:14	08/25/25 03:39	SJM	Mt. Juliet, TN



BG04@4' L1885456-07

Collected by Sean Clarke/Ben Long
 Collected date/time 08/04/25 12:30
 Received date/time 08/06/25 12:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2578706	1	08/14/25 10:46	08/14/25 10:46	MAP	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2585605	1	08/22/25 16:29	09/09/25 08:56	ERP	Mt. Juliet, TN
Wet Chemistry by Method 9045D (S-1.10)	WG2580932	1	08/17/25 14:11	08/17/25 14:49	BJM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod (S-1.20)	WG2580929	1	08/17/25 14:12	08/17/25 17:32	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010D (S-7.10)	WG2578708	1	08/13/25 12:28	08/13/25 15:51	UNP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2576538	5	08/12/25 08:14	08/25/25 03:42	SJM	Mt. Juliet, TN

BG04@6' L1885456-08

Collected by Sean Clarke/Ben Long
 Collected date/time 08/04/25 12:35
 Received date/time 08/06/25 12:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2578706	1	08/14/25 10:51	08/14/25 10:51	MAP	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2585698	1	08/23/25 12:24	09/08/25 22:50	EKB	Mt. Juliet, TN
Wet Chemistry by Method 9045D (S-1.10)	WG2580920	1	08/18/25 10:22	08/18/25 10:52	BJM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod (S-1.20)	WG2580925	1	08/18/25 10:22	08/18/25 15:12	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010D (S-7.10)	WG2578708	1	08/13/25 12:28	08/13/25 15:54	UNP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2576538	5	08/12/25 08:14	08/25/25 03:46	SJM	Mt. Juliet, TN

BG05@4' L1885456-09

Collected by Sean Clarke/Ben Long
 Collected date/time 08/04/25 12:40
 Received date/time 08/06/25 12:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2578923	1	08/14/25 03:35	08/14/25 03:35	MAP	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2585698	1	08/23/25 12:24	09/08/25 22:59	EKB	Mt. Juliet, TN
Wet Chemistry by Method 9045D (S-1.10)	WG2580570	1	08/15/25 10:40	08/19/25 16:40	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod (S-1.20)	WG2580576	1	08/15/25 10:43	08/22/25 14:22	RJP	Mt. Juliet, TN
Metals (ICP) by Method 6010D (S-7.10)	WG2578927	1	08/13/25 16:52	08/15/25 10:04	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2576538	5	08/12/25 08:14	08/25/25 03:55	SJM	Mt. Juliet, TN

BG05@6' L1885456-10

Collected by Sean Clarke/Ben Long
 Collected date/time 08/04/25 12:45
 Received date/time 08/06/25 12:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2578923	1	08/14/25 03:37	08/14/25 03:37	MAP	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2585698	1	08/23/25 12:24	09/08/25 23:08	EKB	Mt. Juliet, TN
Wet Chemistry by Method 9045D (S-1.10)	WG2580570	1	08/15/25 10:40	08/19/25 16:40	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod (S-1.20)	WG2580576	1	08/15/25 10:43	08/22/25 14:22	RJP	Mt. Juliet, TN
Metals (ICP) by Method 6010D (S-7.10)	WG2578927	1	08/13/25 16:52	08/15/25 10:07	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2576538	5	08/12/25 08:14	08/25/25 03:58	SJM	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Mandi Edwards
Project Manager

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

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	2.38		1	08/14/2025 10:36	WG2578706

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.200	1	09/09/2025 07:42	WG2585605

Wet Chemistry by Method 9045D (S-1.10)

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.01		1	08/25/2025 14:27	WG2580935

Sample Narrative:

L1885456-01 WG2580935: 8.01 at 18.8C

Wet Chemistry by Method 9050AMod (S-1.20)

Analyte	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	716	umhos/cm		10.0	1	08/26/2025 11:56	WG2580938

Sample Narrative:

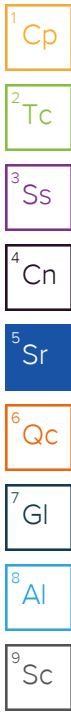
L1885456-01 WG2580938: at 25C

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	0.162		0.100	1	08/13/2025 16:58	WG2578708

Metals (ICPMS) by Method 6020B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.63		0.100	5	08/18/2025 01:03	WG2576536
Barium	71.2		10.0	5	08/18/2025 01:03	WG2576536
Cadmium	ND		0.100	5	08/18/2025 01:03	WG2576536
Copper	ND		10.0	5	08/18/2025 01:03	WG2576536
Lead	ND		10.0	5	08/18/2025 01:03	WG2576536
Nickel	ND		10.0	5	08/18/2025 01:03	WG2576536
Selenium	0.187		0.100	5	08/18/2025 01:03	WG2576536
Silver	ND		0.500	5	08/18/2025 01:03	WG2576536
Zinc	ND		50.0	5	08/18/2025 01:03	WG2576536



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	3.85		1	08/14/2025 10:38	WG2578706

1 Cp

2 Tc

Wet Chemistry by Method 7199

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.200	1	09/09/2025 07:53	WG2585605

3 Ss

4 Cn

Wet Chemistry by Method 9045D (S-1.10)

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.26		1	08/25/2025 15:18	WG2580942

5 Sr

6 Qc

Sample Narrative:

L1885456-02 WG2580942: 8.26 at 18.8C

7 Gl

Wet Chemistry by Method 9050AMod (S-1.20)

Analyte	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	772	umhos/cm		10.0	1	08/26/2025 12:20	WG2580940

8 Al

9 Sc

Sample Narrative:

L1885456-02 WG2580940: at 25C

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.128		0.100	1	08/13/2025 17:01	WG2578708

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Arsenic	1.95		0.100	5	08/18/2025 01:06	WG2576536
Barium	57.6		10.0	5	08/18/2025 01:06	WG2576536
Cadmium	ND		0.100	5	08/18/2025 01:06	WG2576536
Copper	ND		10.0	5	08/18/2025 01:06	WG2576536
Lead	ND		10.0	5	08/18/2025 01:06	WG2576536
Nickel	ND		10.0	5	08/18/2025 01:06	WG2576536
Selenium	0.183		0.100	5	08/18/2025 01:06	WG2576536
Silver	ND		0.500	5	08/18/2025 01:06	WG2576536
Zinc	ND		50.0	5	08/18/2025 01:06	WG2576536

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.445		1	08/14/2025 10:40	WG2578706

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	0.348		0.200	1	09/09/2025 08:03	WG2585605

Wet Chemistry by Method 9045D (S-1.10)

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.76		1	08/25/2025 15:18	WG2580942

Sample Narrative:

L1885456-03 WG2580942: 7.76 at 19C

Wet Chemistry by Method 9050AMod (S-1.20)

Analyte	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	618	umhos/cm		10.0	1	08/26/2025 12:20	WG2580940

Sample Narrative:

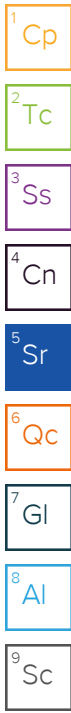
L1885456-03 WG2580940: at 25C

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	08/13/2025 17:04	WG2578708

Metals (ICPMS) by Method 6020B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	5.96		0.100	5	08/18/2025 01:09	WG2576536
Barium	155		10.0	5	08/18/2025 01:09	WG2576536
Cadmium	0.152		0.100	5	08/18/2025 01:09	WG2576536
Copper	12.8		10.0	5	08/18/2025 01:09	WG2576536
Lead	11.9		10.0	5	08/18/2025 01:09	WG2576536
Nickel	15.7		10.0	5	08/18/2025 01:09	WG2576536
Selenium	0.421		0.100	5	08/18/2025 01:09	WG2576536
Silver	ND		0.500	5	08/18/2025 01:09	WG2576536
Zinc	58.0		50.0	5	08/18/2025 01:09	WG2576536



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.627		1	08/14/2025 10:41	WG2578706

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	0.315		0.200	1	09/09/2025 08:14	WG2585605

Wet Chemistry by Method 9045D (S-1.10)

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.90		1	08/25/2025 15:18	WG2580942

Sample Narrative:

L1885456-04 WG2580942: 7.9 at 19.2C

Wet Chemistry by Method 9050AMod (S-1.20)

Analyte	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	589	umhos/cm		10.0	1	08/26/2025 12:20	WG2580940

Sample Narrative:

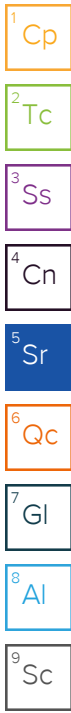
L1885456-04 WG2580940: at 25C

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	08/13/2025 17:07	WG2578708

Metals (ICPMS) by Method 6020B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	4.48		0.100	5	08/18/2025 01:19	WG2576536
Barium	175		10.0	5	08/18/2025 01:19	WG2576536
Cadmium	ND		0.100	5	08/18/2025 01:19	WG2576536
Copper	ND		10.0	5	08/18/2025 01:19	WG2576536
Lead	ND		10.0	5	08/18/2025 01:19	WG2576536
Nickel	12.0		10.0	5	08/18/2025 01:19	WG2576536
Selenium	0.267		0.100	5	08/18/2025 01:19	WG2576536
Silver	ND		0.500	5	08/18/2025 01:19	WG2576536
Zinc	ND		50.0	5	08/18/2025 01:19	WG2576536



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	1.55		1	08/14/2025 10:43	WG2578706

1 Cp

2 Tc

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	0.241	P1	0.200	1	09/09/2025 08:24	WG2585605

3 Ss

4 Cn

Wet Chemistry by Method 9045D (S-1.10)

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.49		1	08/25/2025 15:18	WG2580942

5 Sr

6 Qc

Sample Narrative:

L1885456-05 WG2580942: 8.49 at 19C

7 Gl

Wet Chemistry by Method 9050AMod (S-1.20)

Analyte	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	538	umhos/cm		10.0	1	08/26/2025 12:20	WG2580940

8 Al

9 Sc

Sample Narrative:

L1885456-05 WG2580940: 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	0.184		0.100	1	08/13/2025 17:10	WG2578708

Metals (ICPMS) by Method 6020B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	5.79		0.100	5	08/18/2025 01:22	WG2576536
Barium	146		10.0	5	08/18/2025 01:22	WG2576536
Cadmium	0.139		0.100	5	08/18/2025 01:22	WG2576536
Copper	11.5		10.0	5	08/18/2025 01:22	WG2576536
Lead	10.9		10.0	5	08/18/2025 01:22	WG2576536
Nickel	14.6		10.0	5	08/18/2025 01:22	WG2576536
Selenium	0.347		0.100	5	08/18/2025 01:22	WG2576536
Silver	ND		0.500	5	08/18/2025 01:22	WG2576536
Zinc	51.8		50.0	5	08/18/2025 01:22	WG2576536

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	2.71		1	08/14/2025 10:45	WG2578706

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.200	1	09/09/2025 08:45	WG2585605

Wet Chemistry by Method 9045D (S-1.10)

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.78		1	08/17/2025 14:49	WG2580932

Sample Narrative:

L1885456-06 WG2580932: 8.78 at 22C

Wet Chemistry by Method 9050AMod (S-1.20)

Analyte	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	466	umhos/cm		10.0	1	08/17/2025 17:32	WG2580929

Sample Narrative:

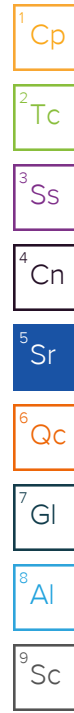
L1885456-06 WG2580929: at 25C

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	0.125		0.100	1	08/13/2025 15:48	WG2578708

Metals (ICPMS) by Method 6020B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.92		0.100	5	08/25/2025 03:39	WG2576538
Barium	77.4		10.0	5	08/25/2025 03:39	WG2576538
Cadmium	ND		0.100	5	08/25/2025 03:39	WG2576538
Copper	ND		10.0	5	08/25/2025 03:39	WG2576538
Lead	ND		10.0	5	08/25/2025 03:39	WG2576538
Nickel	ND		10.0	5	08/25/2025 03:39	WG2576538
Selenium	0.319		0.100	5	08/25/2025 03:39	WG2576538
Silver	ND		0.500	5	08/25/2025 03:39	WG2576538
Zinc	ND		50.0	5	08/25/2025 03:39	WG2576538



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	1.56		1	08/14/2025 10:46	WG2578706

1 Cp

2 Tc

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	0.250		0.200	1	09/09/2025 08:56	WG2585605

3 Ss

4 Cn

Wet Chemistry by Method 9045D (S-1.10)

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.60		1	08/17/2025 14:49	WG2580932

5 Sr

6 Qc

Sample Narrative:

L1885456-07 WG2580932: 8.6 at 21.9C

7 Gl

Wet Chemistry by Method 9050AMod (S-1.20)

Analyte	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	438	umhos/cm		10.0	1	08/17/2025 17:32	WG2580929

8 Al

Sample Narrative:

L1885456-07 WG2580929: at 25C

9 Sc

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	0.130		0.100	1	08/13/2025 15:51	WG2578708

Metals (ICPMS) by Method 6020B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	7.48		0.100	5	08/25/2025 03:42	WG2576538
Barium	165		10.0	5	08/25/2025 03:42	WG2576538
Cadmium	0.145		0.100	5	08/25/2025 03:42	WG2576538
Copper	11.3		10.0	5	08/25/2025 03:42	WG2576538
Lead	10.6		10.0	5	08/25/2025 03:42	WG2576538
Nickel	14.2		10.0	5	08/25/2025 03:42	WG2576538
Selenium	0.651		0.100	5	08/25/2025 03:42	WG2576538
Silver	ND		0.500	5	08/25/2025 03:42	WG2576538
Zinc	ND		50.0	5	08/25/2025 03:42	WG2576538

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	3.07		1	08/14/2025 10:51	WG2578706

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

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND	Q	0.200	1	09/08/2025 22:50	WG2585698

Wet Chemistry by Method 9045D (S-1.10)

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.89		1	08/18/2025 10:52	WG2580920

Sample Narrative:

L1885456-08 WG2580920: 8.89 at 20.1C

Wet Chemistry by Method 9050AMod (S-1.20)

Analyte	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	480	umhos/cm		10.0	1	08/18/2025 15:12	WG2580925

Sample Narrative:

L1885456-08 WG2580925: 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	0.154		0.100	1	08/13/2025 15:54	WG2578708

Metals (ICPMS) by Method 6020B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.95		0.100	5	08/25/2025 03:46	WG2576538
Barium	104		10.0	5	08/25/2025 03:46	WG2576538
Cadmium	ND		0.100	5	08/25/2025 03:46	WG2576538
Copper	ND		10.0	5	08/25/2025 03:46	WG2576538
Lead	ND		10.0	5	08/25/2025 03:46	WG2576538
Nickel	ND		10.0	5	08/25/2025 03:46	WG2576538
Selenium	0.427		0.100	5	08/25/2025 03:46	WG2576538
Silver	ND		0.500	5	08/25/2025 03:46	WG2576538
Zinc	ND		50.0	5	08/25/2025 03:46	WG2576538

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	2.72		1	08/14/2025 03:35	WG2578923

1 Cp

2 Tc

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND	Q	0.200	1	09/08/2025 22:59	WG2585698

3 Ss

4 Cn

Wet Chemistry by Method 9045D (S-1.10)

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.23		1	08/19/2025 16:40	WG2580570

5 Sr

6 Qc

Sample Narrative:

L1885456-09 WG2580570: 8.23 at 22.6C

7 Gl

Wet Chemistry by Method 9050AMod (S-1.20)

Analyte	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	743	umhos/cm		10.0	1	08/22/2025 14:22	WG2580576

8 Al

9 Sc

Sample Narrative:

L1885456-09 WG2580576: 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	0.182		0.100	1	08/15/2025 10:04	WG2578927

Metals (ICPMS) by Method 6020B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.46		0.100	5	08/25/2025 03:55	WG2576538
Barium	86.5		10.0	5	08/25/2025 03:55	WG2576538
Cadmium	ND		0.100	5	08/25/2025 03:55	WG2576538
Copper	ND		10.0	5	08/25/2025 03:55	WG2576538
Lead	ND		10.0	5	08/25/2025 03:55	WG2576538
Nickel	ND		10.0	5	08/25/2025 03:55	WG2576538
Selenium	0.420		0.100	5	08/25/2025 03:55	WG2576538
Silver	ND		0.500	5	08/25/2025 03:55	WG2576538
Zinc	ND		50.0	5	08/25/2025 03:55	WG2576538

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	3.11		1	08/14/2025 03:37	WG2578923

1 Cp

2 Tc

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND	Q	0.200	1	09/08/2025 23:08	WG2585698

3 Ss

4 Cn

Wet Chemistry by Method 9045D (S-1.10)

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.50		1	08/19/2025 16:40	WG2580570

5 Sr

6 Qc

Sample Narrative:

L1885456-10 WG2580570: 8.5 at 22.3C

7 Gl

Wet Chemistry by Method 9050AMod (S-1.20)

Analyte	Result	Units	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	638	umhos/cm		10.0	1	08/22/2025 14:22	WG2580576

8 Al

9 Sc

Sample Narrative:

L1885456-10 WG2580576: 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	0.137		0.100	1	08/15/2025 10:07	WG2578927

Metals (ICPMS) by Method 6020B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.95		0.100	5	08/25/2025 03:58	WG2576538
Barium	80.3		10.0	5	08/25/2025 03:58	WG2576538
Cadmium	ND		0.100	5	08/25/2025 03:58	WG2576538
Copper	ND		10.0	5	08/25/2025 03:58	WG2576538
Lead	ND		10.0	5	08/25/2025 03:58	WG2576538
Nickel	ND		10.0	5	08/25/2025 03:58	WG2576538
Selenium	0.388		0.100	5	08/25/2025 03:58	WG2576538
Silver	ND		0.500	5	08/25/2025 03:58	WG2576538
Zinc	ND		50.0	5	08/25/2025 03:58	WG2576538

Method Blank (MB)

(MB) R4273564-1 09/09/25 07:22

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Hexavalent Chromium	ND		0.200	0.200

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1885456-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1885456-05 09/09/25 08:24 • (DUP) R4273564-3 09/09/25 08:35

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Hexavalent Chromium	0.241	ND	1	200	P1	20

L1885597-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1885597-04 09/09/25 10:40 • (DUP) R4273564-8 09/09/25 10:51

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Hexavalent Chromium	ND	ND	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R4273564-2 09/09/25 07:32

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

L1885597-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1885597-01 09/09/25 09:27 • (MS) R4273564-5 09/09/25 09:48 • (MSD) R4273564-6 09/09/25 09:59

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Hexavalent Chromium	20.0	ND	ND	ND	0.000	0.000	1	75.0-125	J6	J6	0.000	20

L1885597-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1885597-01 09/09/25 09:27 • (MS) R4273564-9 09/09/25 10:09

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Hexavalent Chromium	643	ND	584	90.8	50	75.0-125	

Method Blank (MB)

(MB) R4275217-1 09/08/25 22:33

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Hexavalent Chromium	ND	Q	0.200	0.200

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1885456-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1885456-10 09/08/25 23:08 • (DUP) R4275217-3 09/08/25 23:17

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Hexavalent Chromium	ND	ND	1	0.000	Q	20

L1885606-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1885606-08 09/09/25 02:02 • (DUP) R4275217-8 09/09/25 02:11

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Hexavalent Chromium	ND	ND	1	0.000	Q	20

Laboratory Control Sample (LCS)

(LCS) R4275217-2 09/08/25 22:41

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Hexavalent Chromium	10.0	10.3	103	80.0-120	Q

L1885606-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1885606-03 09/08/25 23:53 • (MS) R4275217-4 09/09/25 00:50 • (MSD) R4275217-5 09/09/25 00:59

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Hexavalent Chromium	20.0	ND	9.61	13.9	48.1	69.7	1	75.0-125	J6 Q	J3 J6 Q	36.7	20

L1885606-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1885606-03 09/08/25 23:53 • (MS) R4275217-6 09/09/25 01:08

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Hexavalent Chromium	651	ND	670	103	50	75.0-125	Q

L1885456-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1885456-09 08/19/25 16:40 • (DUP) R4260818-2 08/19/25 16:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.23	8.23	1	0.000		1

Sample Narrative:

OS: 8.23 at 22.6C

DUP: 8.23 at 23C

L1885536-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1885536-08 08/19/25 16:40 • (DUP) R4260818-3 08/19/25 16:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.52	8.52	1	0.000		1

Sample Narrative:

OS: 8.52 at 21.9C

DUP: 8.52 at 22.2C

Laboratory Control Sample (LCS)

(LCS) R4260818-1 08/19/25 16:40

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: 10.01 at 22.1C

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1885444-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1885444-10 08/18/25 10:52 • (DUP) R4260090-2 08/18/25 10:52

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
su	su			%		%
pH	7.56	7.57	1	0.132		1

Sample Narrative:

OS: 7.56 at 20.2C
DUP: 7.57 at 20.3C



L1887495-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1887495-08 08/18/25 10:52 • (DUP) R4260090-3 08/18/25 10:52

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
su	su			%		%
pH	7.69	7.70	1	0.130		1

Sample Narrative:

OS: 7.69 at 20.7C
DUP: 7.7 at 20.7C



Laboratory Control Sample (LCS)

(LCS) R4260090-1 08/18/25 10:52

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 21C

L1885444-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1885444-09 08/17/25 14:49 • (DUP) R4259841-2 08/17/25 14:49

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.37	7.36	1	0.136		1

Sample Narrative:

OS: 7.37 at 22.2C
DUP: 7.36 at 22.4C

L1887500-17 Original Sample (OS) • Duplicate (DUP)

(OS) L1887500-17 08/17/25 14:49 • (DUP) R4259841-3 08/17/25 14:49

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.27	7.27	1	0.000		1

Sample Narrative:

OS: 7.27 at 21.9C
DUP: 7.27 at 21.9C

Laboratory Control Sample (LCS)

(LCS) R4259841-1 08/17/25 14:49

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	9.97	99.7	99.0-101	

Sample Narrative:

LCS: 9.97 at 22.4C



L1885444-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1885444-01 08/25/25 14:27 • (DUP) R4263658-2 08/25/25 14:27

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
su	su			%		%
pH	7.42	7.46	1	0.538		1

Sample Narrative:
 OS: 7.42 at 19.5C
 DUP: 7.46 at 19.9C

L1885609-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1885609-11 08/25/25 14:27 • (DUP) R4263658-3 08/25/25 14:27

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
su	su			%		%
pH	7.62	7.63	1	0.131		1

Sample Narrative:
 OS: 7.62 at 18.9C
 DUP: 7.63 at 19.1C

Laboratory Control Sample (LCS)

(LCS) R4263658-1 08/25/25 14:27

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 19.1C

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1885444-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1885444-05 08/25/25 15:18 • (DUP) R4263699-2 08/25/25 15:18

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.04	7.07	1	0.425		1

Sample Narrative:

OS: 7.04 at 19.4C
 DUP: 7.07 at 19.7C

L1885609-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1885609-13 08/25/25 15:18 • (DUP) R4263699-3 08/25/25 15:18

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.86	7.87	1	0.127		1

Sample Narrative:

OS: 7.86 at 18.7C
 DUP: 7.87 at 19C

Laboratory Control Sample (LCS)

(LCS) R4263699-1 08/25/25 15:18

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 19C



Method Blank (MB)

(MB) R4262571-1 08/22/25 14:22

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Specific Conductance	ND		10.0	10.0

Sample Narrative:

BLANK: at 25C

L1885456-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1885456-10 08/22/25 14:22 • (DUP) R4262571-3 08/22/25 14:22

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Specific Conductance	638	631	1	1.10		20

Sample Narrative:

OS: at 25C

DUP: at 25C

L1885536-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1885536-07 08/22/25 14:22 • (DUP) R4262571-4 08/22/25 14:22

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Specific Conductance	1070	1060	1	1.50		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R4262571-2 08/22/25 14:22

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Specific Conductance	581	573	98.6	90.0-110	

Sample Narrative:

LCS: at 25C



Method Blank (MB)

(MB) R4260295-1 08/18/25 15:12

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Specific Conductance	ND		10.0	10.0

Sample Narrative:

BLANK: at 25C

L1885456-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1885456-08 08/18/25 15:12 • (DUP) R4260295-3 08/18/25 15:12

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Specific Conductance	480	486	1	1.31		20

Sample Narrative:

OS: at 25C

DUP: at 25C

L1887495-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1887495-07 08/18/25 15:12 • (DUP) R4260295-4 08/18/25 15:12

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Specific Conductance	2130	2130	1	0.141		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R4260295-2 08/18/25 15:12

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Specific Conductance	581	582	100	90.0-110	

Sample Narrative:

LCS: at 25C

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4259851-1 08/17/25 17:32

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Specific Conductance	ND		10.0	10.0

Sample Narrative:

BLANK: at 25C

L1885456-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1885456-06 08/17/25 17:32 • (DUP) R4259851-3 08/17/25 17:32

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Specific Conductance	466	463	1	0.646		20

Sample Narrative:

OS: at 25C

DUP: at 25C

L1887500-16 Original Sample (OS) • Duplicate (DUP)

(OS) L1887500-16 08/17/25 17:32 • (DUP) R4259851-4 08/17/25 17:32

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Specific Conductance	771	772	1	0.130		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R4259851-2 08/17/25 17:32

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Specific Conductance	581	588	101	90.0-110	

Sample Narrative:

LCS: at 25C



Method Blank (MB)

(MB) R4264057-1 08/26/25 11:56

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Specific Conductance	ND		10.0	10.0

Sample Narrative:

BLANK: at 25C

L1885444-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1885444-02 08/26/25 11:56 • (DUP) R4264057-3 08/26/25 11:56

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Specific Conductance	150	149	1	0.134		20

Sample Narrative:

OS: at 25C

DUP: at 25C

L1885609-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1885609-10 08/26/25 11:56 • (DUP) R4264057-4 08/26/25 11:56

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Specific Conductance	1970	1940	1	1.69		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R4264057-2 08/26/25 11:56

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Specific Conductance	581	589	101	90.0-110	

Sample Narrative:

LCS: at 25C



Method Blank (MB)

(MB) R4264079-1 08/26/25 12:20

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

Sample Narrative:

BLANK: at 25C

L1885444-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1885444-06 08/26/25 12:20 • (DUP) R4264079-3 08/26/25 12:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Specific Conductance	umhos/cm	umhos/cm	%	%		%
	162	162	1	0.124		20

Sample Narrative:

OS: at 25C

DUP: at 25C

L1885609-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1885609-12 08/26/25 12:20 • (DUP) R4264079-4 08/26/25 12:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Specific Conductance	umhos/cm	umhos/cm	%	%		%
	2010	2020	1	0.149		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R4264079-2 08/26/25 12:20

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Specific Conductance	umhos/cm	umhos/cm	%	%	
	581	587	101	90.0-110	

Sample Narrative:

LCS: at 25C

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4258212-1 08/13/25 16:03

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) R4258212-2 08/13/25 16:07 • (LCSD) R4258212-3 08/13/25 16:10

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	1.02	1.02	102	102	80.0-120			0.438	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4259364-1 08/15/25 09:54

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) R4259364-2 08/15/25 09:58 • (LCSD) R4259364-3 08/15/25 10:01

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	0.962	0.951	96.2	95.1	80.0-120			1.15	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4259947-1 08/18/25 00:41

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

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

Laboratory Control Sample (LCS)

(LCS) R4259947-2 08/18/25 00:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	93.1	93.1	80.0-120	
Barium	100	94.3	94.3	80.0-120	
Cadmium	100	96.1	96.1	80.0-120	
Copper	100	94.2	94.2	80.0-120	
Lead	100	93.9	93.9	80.0-120	
Nickel	100	95.9	95.9	80.0-120	
Selenium	100	93.0	93.0	80.0-120	
Silver	20.0	19.2	95.8	80.0-120	
Zinc	100	92.3	92.3	80.0-120	

⁷Gl

⁸Al

⁹Sc

L1885609-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1885609-16 08/18/25 00:48 • (MS) R4259947-5 08/18/25 00:57 • (MSD) R4259947-6 08/18/25 01:00

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	1.35	89.4	89.6	88.1	88.2	5	75.0-125			0.192	20
Barium	100	55.7	169	154	113	98.6	5	75.0-125			8.90	20
Cadmium	100	ND	89.4	91.7	89.4	91.7	5	75.0-125			2.50	20
Copper	100	ND	97.2	94.3	97.2	94.3	5	75.0-125			3.09	20
Lead	100	ND	91.0	90.6	91.0	90.6	5	75.0-125			0.454	20
Nickel	100	ND	94.4	95.1	94.4	95.1	5	75.0-125			0.731	20
Selenium	100	0.167	87.5	89.8	87.3	89.6	5	75.0-125			2.56	20
Silver	20.0	ND	17.8	18.2	89.2	91.0	5	75.0-125			2.02	20
Zinc	100	ND	117	114	117	114	5	75.0-125			3.12	20

Method Blank (MB)

(MB) R4263387-1 08/25/25 03:17

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

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

Laboratory Control Sample (LCS)

(LCS) R4263387-2 08/25/25 03:20

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	96.7	96.7	80.0-120	
Barium	100	91.8	91.8	80.0-120	
Cadmium	100	100	100	80.0-120	
Copper	100	97.3	97.3	80.0-120	
Lead	100	95.4	95.4	80.0-120	
Nickel	100	99.2	99.2	80.0-120	
Selenium	100	94.3	94.3	80.0-120	
Silver	20.0	19.7	98.5	80.0-120	
Zinc	100	95.0	95.0	80.0-120	

⁷Gl

⁸Al

⁹Sc

L1885582-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1885582-05 08/25/25 03:23 • (MS) R4263387-5 08/25/25 03:33 • (MSD) R4263387-6 08/25/25 03:36

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	1.12	95.1	96.4	94.0	95.2	5	75.0-125			1.29	20
Barium	100	28.0	125	126	96.9	98.0	5	75.0-125			0.840	20
Cadmium	100	ND	97.2	98.0	97.2	98.0	5	75.0-125			0.860	20
Copper	100	ND	98.2	99.7	98.2	99.7	5	75.0-125			1.50	20
Lead	100	ND	96.0	99.5	96.0	99.5	5	75.0-125			3.58	20
Nickel	100	ND	99.8	101	99.8	101	5	75.0-125			1.54	20
Selenium	100	0.298	93.6	94.5	93.3	94.2	5	75.0-125			0.981	20
Silver	20.0	ND	18.9	19.2	94.7	95.8	5	75.0-125			1.16	20
Zinc	100	ND	107	106	107	106	5	75.0-125			0.586	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

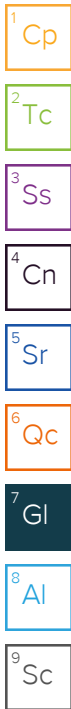
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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

Abbreviations and Definitions

MDL	Method Detection Limit.
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.
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.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
Q	Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.



ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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

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

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

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

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Company Name/Address: Civitas/Tasman - CO 4725 Independence St, Wheat Ridge, Colorado 80033		Billing Information: Accounts Payable 650 Southgate Dr. Windsor, CO 80550		Pres Chk	Analysis / Container / Preservative						Chain of Custody Page 1 of 1	
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MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/public/ass-standard-terms.pdf>

Project Manager: Sam Vogt / Jacob Evans		Email: svogt@tasman-geo.com / Jevans@civiresources.com	
Project Name: Zisch 23-6			Please Circle: PT (M) CT ET

Phone: 610-405-9078	Lab Project #:	AFE# or C/C: 24598
Collected by (print): Sean Clarke Ben Long	Site/Facility ID #:	Billing Code #: 8523.195
Collected by (signature): <i>[Signature]</i>	Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day <input type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day	Quote # Date Results Needed STD
Immediately Packed on Ice N <input type="checkbox"/> Y <input checked="" type="checkbox"/>		

SDG #
E018

Template: **T250702**
Prelgin: **P1068185**
PM: **824 - Chris Ward**
PB:
Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	# of Containers	Full TABLE915 8ozCir-NoPres	Background TABLE915 8ozCir-NoPres	V8260 (GW TABLE915) 40mL Amb-HCl	Chloride, Sulfate 125mL HDPE-NoPres	TDS 1L-HDPE-NoPres	Remarks	Sample # (lab only)
BG0104	Grab	SS	4'	8/4/25	12:00	1		X					01
BG0106			6'		12:05								02
BG0204			4'		12:10								03
BG0206			6'		12:15								04
BG0304			4'		12:20								05
BG0306			6'		12:25								06
BG0404			4'		12:30								07
BG0406			6'		12:35								08
BG0504			4'		12:40								09
BG0506			6'		12:45								10

* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - Waste Water 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 _____	Sample Receipt Checklist COC Seal Present/Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N COC Signed/Accurate: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Bottles arrive intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Correct bottles used: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Sufficient volume sent: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N If Applicable VOA Zero Headspace: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Preservation Correct/Checked: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N RAD Screen <0.5 mR/hr: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
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Relinquished by: (Signature) <i>[Signature]</i>	Date: 8/4/25	Time: 1505	Received by: (Signature) <i>[Signature]</i>	Trip Blank Received: Yes/No <input checked="" type="checkbox"/> No	Temp: 72.9 F	Bottles Received: 0.5-0.1=0.4 10	If preservation required by Login: Date/Time
Relinquished by: (Signature) <i>[Signature]</i>	Date: 8-5-25	Time: 12:00	Received for lab by: (Signature) <i>[Signature]</i>	Date: 8-6-25	Time: 1200	Condition: NCF <input checked="" type="checkbox"/> OK	