



B25061875_Schwartzwalder Mine

1 message

Stacie M. Helms <SHelms@energylab.com>

Tue, Jul 15, 2025 at 3:54 PM

To: "Adam.billin@linkan.com" <Adam.billin@linkan.com>, "Alex.schwiebert@linkan.com" <Alex.schwiebert@linkan.com>, "ap@linkan.com" <ap@linkan.com>, "chris.prosper@linkan.com" <chris.prosper@linkan.com>, "Peter.hays@state.co.us" <Peter.hays@state.co.us>

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Sincerely,

Energy Laboratories, Inc.

Trust our People. Trust our Data.

Stacie Helms | Administrative Assistant | Billings, MT

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2 attachments



B25061875-EDD-ELICSV-WITH-HEADER-1.CSV

16K



B25061875-FINAL REPORT-1.PDF

2252K



ANALYTICAL SUMMARY REPORT

July 15, 2025

Linkan Engineering
2720 Ruby Vista Dr Ste 101
Elko, NV 89801-4943

Work Order: B25061875 Quote ID: B17287

Project Name: Schwartzwalder Mine

Energy Laboratories Inc Billings MT received the following 1 sample for Linkan Engineering on 6/20/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B25061875-001	Mine Pool	06/19/25 9:40	06/20/25	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity to pH 4.5 Cyanide, Weak Acid Dissociable Mercury, Dissolved Mercury, Total Oxygen, Dissolved Anions by Ion Chromatography Nitrogen, Nitrate + Nitrite Metals Digestion by E200.2 Mercury Digestion by E245.1 E365.1 Digestion, Total P Low Level Phosphorus, Orthophosphate as P Low level Phosphorus, Total Gross Alpha, Gross Beta, Total Radium 226 + Radium 228 Radium 226, Dissolved Radium 226, Total Radium 228, Total Solids, Total Dissolved Solids, Total Suspended

The analyses presented in this report were performed by Energy Laboratories, Inc., 1120 So. 27th Street, Billings, MT 59101, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.



CLIENT: Linkan Engineering
Project: Schwartzwalder Mine
Work Order: B25061875

Report Date: 07/15/25

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, PO Box 247, Casper, WY, EPA Number WY00002.

"J" qualified analyte concentrations are below the laboratory minimum recommended Reporting Limit (RL) and above the calculated method detection limit (MDL). The laboratory reporting limits are based on the lowest calibration standard for the method and are set at levels which can be reliably quantitated. Metals reporting limits are based on the MDL and through examination of blank performance. MDL's are statistically calculated values determined through analysis of a clean sample matrix.

Inorganic analytes reported with "J" qualifiers should be verified against the corresponding method blank. Inorganic "J" quantitations near the MDL may be suspect due to possible method background levels, sample matrix effects, and/or daily variability in instrument signal-to-noise levels.



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Linkan Engineering
Project: Schwartzwalder Mine
Lab ID: B25061875-001
Client Sample ID: Mine Pool

Report Date: 07/15/25
Collection Date: 06/19/25 09:40
Date Received: 06/20/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Suspended TSS @ 105 C	28	mg/L		10		A2540 D	06/20/25 14:42 / pjw
Solids, Total Dissolved TDS @ 180 C	3950	mg/L		100		A2540 C	06/20/25 14:35 / etv
INORGANICS							
Alkalinity, Total as CaCO ₃	878	mg/L		4		A2320 B	06/20/25 16:58 / spb
Bicarbonate as CaCO ₃	878	mg/L		3		A2320 B	06/20/25 16:58 / spb
Carbonate as CaCO ₃	ND	mg/L		7		A2320 B	06/20/25 16:58 / spb
Chloride	65	mg/L		5		E300.0	06/21/25 23:49 / caa
Sulfate	2110	mg/L		20		E300.0	06/21/25 23:49 / caa
Fluoride	1.4	mg/L		0.2		E300.0	06/21/25 23:49 / caa
Hydroxide as CaCO ₃	ND	mg/L		10		A2320 B	06/20/25 16:58 / spb
Cyanide, Weak Acid Dissociable	ND	mg/L		0.005		Kelada-01	06/23/25 11:51 / fap
Oxygen, Dissolved	4.3	mg/L	H	0.1		A4500-O G	06/20/25 13:51 / mbs
NUTRIENTS							
Nitrogen, Nitrate+Nitrite as N	0.01	mg/L		0.01		E353.2	06/27/25 14:05 / rs4
Phosphorus, Orthophosphate as P	0.012	mg/L		0.002		E365.1	06/20/25 17:24 / taz
Phosphorus, Total as P	0.118	mg/L		0.002		E365.1	06/25/25 12:48 / taz
METALS, DISSOLVED							
Aluminum	0.002	mg/L	J	0.03		E200.8	06/24/25 02:00 / aem
Antimony	ND	mg/L		0.001		E200.8	06/27/25 00:25 / aem
Arsenic	0.024	mg/L		0.001		E200.8	06/24/25 02:00 / aem
Boron	0.34	mg/L		0.05		E200.7	06/23/25 17:12 / enb
Calcium	358	mg/L		1		E200.7	06/23/25 17:12 / enb
Chromium	ND	mg/L		0.005		E200.8	06/24/25 02:00 / aem
Copper	ND	mg/L		0.005		E200.8	06/24/25 02:00 / aem
Iron	8.98	mg/L		0.02		E200.8	06/24/25 02:00 / aem
Lead	ND	mg/L		0.001		E200.8	06/24/25 02:00 / aem
Magnesium	308	mg/L		1		E200.7	06/23/25 17:12 / enb
Manganese	0.593	mg/L		0.001		E200.8	06/24/25 02:00 / aem
Mercury	ND	mg/L		0.0001		E245.1	06/24/25 15:16 / mjb
Molybdenum	1.25	mg/L		0.001		E200.8	06/24/25 02:00 / aem
Potassium	33	mg/L		2		E200.7	06/23/25 17:12 / enb
Silver	ND	mg/L		0.001		E200.8	06/25/25 18:49 / aem
Sodium	379	mg/L		1		E200.7	06/23/25 17:12 / enb
Thallium	ND	mg/L		0.0005		E200.8	06/24/25 02:00 / aem
Uranium	23.8	mg/L		0.5		E200.7	06/23/25 17:12 / enb
Zinc	ND	mg/L		0.01		E200.8	06/24/25 02:00 / aem
METALS, TOTAL							
Aluminum	0.006	mg/L	J	0.03		E200.8	06/26/25 23:37 / aem
Antimony	ND	mg/L		0.001		E200.8	06/26/25 23:37 / aem
Arsenic	0.029	mg/L		0.001		E200.8	06/26/25 23:37 / aem

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
H - Analysis performed past the method holding time

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)
J - Estimated value - analyte was present but less than the Reporting Limit (RL)



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Linkan Engineering
Project: Schwartzwalder Mine
Lab ID: B25061875-001
Client Sample ID: Mine Pool

Report Date: 07/15/25
Collection Date: 06/19/25 09:40
DateReceived: 06/20/25
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL							
Boron	0.35	mg/L		0.05		E200.7	06/25/25 18:20 / enb
Chromium	ND	mg/L		0.005		E200.8	06/27/25 17:39 / jks
Copper	0.001	mg/L	J	0.005		E200.8	06/26/25 23:37 / aem
Iron	10.3	mg/L		0.02		E200.8	06/26/25 23:37 / aem
Lead	ND	mg/L		0.001		E200.8	06/26/25 23:37 / aem
Manganese	0.560	mg/L		0.001		E200.8	06/26/25 23:37 / aem
Mercury	ND	mg/L		0.0001		E245.1	06/24/25 15:18 / mjb
Molybdenum	1.24	mg/L		0.001		E200.8	06/26/25 23:37 / aem
Silver	0.00001	mg/L	J	0.001		E200.8	06/26/25 23:37 / aem
Thallium	ND	mg/L		0.0005		E200.8	06/27/25 17:39 / jks
Zinc	0.003	mg/L	J	0.01		E200.8	06/26/25 23:37 / aem
RADIONUCLIDES - DISSOLVED							
Radium 226	95.5	pCi/L				E903.0	06/30/25 14:44 / eli-ca
Radium 226 precision (±)	14.7	pCi/L				E903.0	06/30/25 14:44 / eli-ca
Radium 226 MDC	0.2	pCi/L				E903.0	06/30/25 14:44 / eli-ca
RADIONUCLIDES - TOTAL							
Gross Alpha	24000	pCi/L				E900.0	07/12/25 02:18 / eli-ca
Gross Alpha precision (±)	5200	pCi/L				E900.0	07/12/25 02:18 / eli-ca
Gross Alpha MDC	33.1	pCi/L				E900.0	07/12/25 02:18 / eli-ca
Gross Beta	5740	pCi/L				E900.0	07/12/25 02:18 / eli-ca
Gross Beta precision (±)	374	pCi/L				E900.0	07/12/25 02:18 / eli-ca
Gross Beta MDC	21.8	pCi/L				E900.0	07/12/25 02:18 / eli-ca
Radium 226	70.6	pCi/L				E903.0	07/08/25 12:11 / eli-ca
Radium 226 precision (±)	10.8	pCi/L				E903.0	07/08/25 12:11 / eli-ca
Radium 226 MDC	0.2	pCi/L				E903.0	07/08/25 12:11 / eli-ca
Radium 228	0.5	pCi/L	U			RA-05	07/03/25 12:53 / eli-ca
Radium 228 precision (±)	0.6	pCi/L				RA-05	07/03/25 12:53 / eli-ca
Radium 228 MDC	0.9	pCi/L				RA-05	07/03/25 12:53 / eli-ca
Radium 226 + Radium 228	71.0	pCi/L				A7500-RA	07/11/25 13:24 / eli-ca
Radium 226 + Radium 228 precision (±)	10.9	pCi/L				A7500-RA	07/11/25 13:24 / eli-ca
Radium 226 + Radium 228 MDC	0.9	pCi/L				A7500-RA	07/11/25 13:24 / eli-ca

**Report
Definitions:**

RL - Analyte Reporting Limit
QCL - Quality Control Limit
J - Estimated value - analyte was present but less than the Reporting Limit (RL)

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)
U - Not detected



QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B25061875

Report Date: 07/01/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R444476
Lab ID: LCS Laboratory Control Sample Run: METROHM 2_250620A 06/20/25 15:58										
Alkalinity, Total as CaCO ₃		102	mg/L	4.0	102	90	110			
Lab ID: MBLK Method Blank Run: METROHM 2_250620A 06/20/25 16:27										
Alkalinity, Total as CaCO ₃		ND	mg/L	4						
Lab ID: B25061894-005BDUP 7 Sample Duplicate Run: METROHM 2_250620A 06/20/25 17:51										
Alkalinity, Total as CaCO ₃		180	mg/L	4.0				0.1	10	
Bicarbonate as HCO ₃		220	mg/L	4.0				0.1	10	
Carbonate as CO ₃		ND	mg/L	4.0					10	
Hydroxide as OH		ND	mg/L	4.0					10	
Bicarbonate as CaCO ₃		180	mg/L	3.3				0.1	10	
Carbonate as CaCO ₃		ND	mg/L	6.7					10	
Hydroxide as CaCO ₃		ND	mg/L	12						

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B25061875

Report Date: 07/01/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C									Batch: TDS20250620B	
Lab ID: MBLK_20250620-6		Method Blank					Run: Bal #30_250620B		06/20/25 14:31	
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	20						
Lab ID: LCS_20250620-4		Laboratory Control Sample					Run: Bal #30_250620B		06/20/25 14:31	
Solids, Total Dissolved TDS @ 180 C		925	mg/L	25	93	90	110			
Lab ID: B25061872-001ADUP		Sample Duplicate					Run: Bal #30_250620B		06/20/25 14:32	
Solids, Total Dissolved TDS @ 180 C		37100	mg/L	1200				0.1	10	
Lab ID: B25061344-010ADUP		Sample Duplicate					Run: Bal #30_250620B		06/20/25 14:36	
Solids, Total Dissolved TDS @ 180 C		5500	mg/L	250				1.2	10	H

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

H - Analysis performed past the method holding time



QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B25061875

Report Date: 07/01/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 D								Batch: TSS20250620B		
Lab ID: MBLK_20250620-7	Method Blank					Run: BAL #30_250620E		06/20/25 14:41		
Solids, Total Suspended TSS @ 105 C		ND	mg/L	0.6						
Lab ID: LCS_20250620-5	Laboratory Control Sample					Run: BAL #30_250620E		06/20/25 14:41		
Solids, Total Suspended TSS @ 105 C		103	mg/L	25	103	80	120			
Lab ID: B25061875-001CDUP	Sample Duplicate					Run: BAL #30_250620E		06/20/25 14:42		
Solids, Total Suspended TSS @ 105 C		27.8	mg/L	10				1.4	10	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B25061875

Report Date: 07/01/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-O G									Batch: R444534	
Lab ID: B25061875-001BDUP		Sample Duplicate			Run: DO_METER_250620A				06/20/25 13:58	
Oxygen, Dissolved		4.69	mg/L	0.10				8.7	30	H

Qualifiers:

RL - Analyte Reporting Limit
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ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B25061875

Report Date: 07/01/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0		Analytical Run: IC METROHM 1_250619A								
Lab ID: CCV	3	Continuing Calibration Verification Standard								06/21/25 22:10
Chloride		25.7	mg/L	1.0	103	90	110			
Sulfate		104	mg/L	1.0	104	90	110			
Fluoride		1.25	mg/L	0.10	100	90	110			
Method: E300.0		Batch: R444488								
Lab ID: ICB	3	Method Blank								Run: IC METROHM 1_250619A 06/19/25 11:55
Chloride		ND	mg/L	0.1						
Sulfate		ND	mg/L	0.5						
Fluoride		ND	mg/L	0.01						
Lab ID: LFB	3	Laboratory Fortified Blank								Run: IC METROHM 1_250619A 06/19/25 12:11
Chloride		24.8	mg/L	1.0	99	90	110			
Sulfate		103	mg/L	1.1	103	90	110			
Fluoride		1.28	mg/L	0.10	102	90	110			
Lab ID: B25061873-002AMS	3	Sample Matrix Spike								Run: IC METROHM 1_250619A 06/21/25 22:59
Chloride		29.9	mg/L	1.0	104	90	110			
Sulfate		184	mg/L	1.1	103	90	110			
Fluoride		1.43	mg/L	0.10	102	90	110			
Lab ID: B25061873-002AMSD	3	Sample Matrix Spike Duplicate								Run: IC METROHM 1_250619A 06/21/25 23:16
Chloride		30.4	mg/L	1.0	106	90	110	1.4	20	
Sulfate		187	mg/L	1.1	106	90	110	1.5	20	
Fluoride		1.46	mg/L	0.10	104	90	110	1.8	20	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B25061875

Report Date: 07/01/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2										Analytical Run: FIA203-B_250627A
Lab ID: ICV	Initial Calibration Verification Standard									06/27/25 10:50
Nitrogen, Nitrate+Nitrite as N		0.550	mg/L	0.010	97	90	110			
Lab ID: CCV_20250627-10										Continuing Calibration Verification Standard
Nitrogen, Nitrate+Nitrite as N		1.02	mg/L	0.010	102	90	110			06/27/25 13:53
Method: E353.2										Batch: R444974
Lab ID: FilterMBLK	Method Blank									Run: FIA203-B_250627A
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.009						06/27/25 10:51
Lab ID: MBLK_20250627-3	Method Blank									Run: FIA203-B_250627A
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.009						06/27/25 10:52
Lab ID: FilterLFB	Laboratory Fortified Blank									Run: FIA203-B_250627A
Nitrogen, Nitrate+Nitrite as N		0.969	mg/L	0.010	97	90	110			06/27/25 10:53
Lab ID: LFB_20250627-1	Laboratory Fortified Blank									Run: FIA203-B_250627A
Nitrogen, Nitrate+Nitrite as N		0.999	mg/L	0.010	100	90	110			06/27/25 10:54
Lab ID: B25061847-001CMS	Sample Matrix Spike									Run: FIA203-B_250627A
Nitrogen, Nitrate+Nitrite as N		1.00	mg/L	0.010	100	90	110			06/27/25 13:57
Lab ID: B25061847-001CMSD	Sample Matrix Spike Duplicate									Run: FIA203-B_250627A
Nitrogen, Nitrate+Nitrite as N		1.05	mg/L	0.010	105	90	110	4.4	10	06/27/25 13:58

Qualifiers:

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QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B25061875

Report Date: 07/01/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E365.1 Analytical Run: FIA204-B_250620A										
Lab ID: ICV	Initial Calibration Verification Standard 06/20/25 17:18									
Phosphorus, Orthophosphate as P		0.252	mg/L	0.0050	101	90	110			
Method: E365.1 Batch: R444570										
Lab ID: ICB	Method Blank Run: FIA204-B_250620A 06/20/25 17:20									
Phosphorus, Orthophosphate as P		ND	mg/L	0.001						
Lab ID: LFB	Laboratory Fortified Blank Run: FIA204-B_250620A 06/20/25 17:21									
Phosphorus, Orthophosphate as P		0.253	mg/L	0.0050	101	90	110			
Lab ID: B25061875-001AMS	Sample Matrix Spike Run: FIA204-B_250620A 06/20/25 17:25									
Phosphorus, Orthophosphate as P		0.257	mg/L	0.0020	98	90	110			
Lab ID: B25061875-001AMSD	Sample Matrix Spike Duplicate Run: FIA204-B_250620A 06/20/25 17:26									
Phosphorus, Orthophosphate as P		0.246	mg/L	0.0020	94	90	110	4.4	10	
Method: E365.1 Analytical Run: SEAL201-B_250625A										
Lab ID: ICV-198785	Initial Calibration Verification Standard 06/25/25 10:04									
Phosphorus, Total as P		0.504	mg/L	0.0050	101	90	110			
Lab ID: CCV-198785	Continuing Calibration Verification Standard 06/25/25 12:39									
Phosphorus, Total as P		0.536	mg/L	0.0050	107	90	110			
Method: E365.1 Batch: 200872										
Lab ID: MB-200872	Method Blank Run: SEAL201-B_250625A 06/25/25 12:25									
Phosphorus, Total as P		ND	mg/L	0.002						
Lab ID: LCS-200872	Laboratory Control Sample Run: SEAL201-B_250625A 06/25/25 12:26									
Phosphorus, Total as P		0.190	mg/L	0.0050	95	90	110			
Lab ID: B25061894-003EMS	Sample Matrix Spike Run: SEAL201-B_250625A 06/25/25 12:52									
Phosphorus, Total as P		0.200	mg/L	0.0020	98	90	110			
Lab ID: B25061894-003EMSD	Sample Matrix Spike Duplicate Run: SEAL201-B_250625A 06/25/25 12:53									
Phosphorus, Total as P		0.201	mg/L	0.0020	99	90	110	0.6	10	

Qualifiers:

RL - Analyte Reporting Limit

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QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B25061875

Report Date: 07/01/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: Kelada-01								Analytical Run: SFA-202-B_250623A		
Lab ID: ICV	Initial Calibration Verification Standard								06/23/25 11:18	
Cyanide, Weak Acid Dissociable		0.0942	mg/L	0.0050	94	90	110			
Method: Kelada-01								Batch: R444647		
Lab ID: ICB	Method Blank					Run: SFA-202-B_250623A			06/23/25 11:20	
Cyanide, Weak Acid Dissociable		ND	mg/L	0.002						
Lab ID: LFB	Laboratory Fortified Blank					Run: SFA-202-B_250623A			06/23/25 11:22	
Cyanide, Weak Acid Dissociable		0.0978	mg/L	0.0050	98	90	110			
Lab ID: LCS1-ZnCN2	Laboratory Control Sample					Run: SFA-202-B_250623A			06/23/25 11:24	
Cyanide, Weak Acid Dissociable		0.0939	mg/L	0.0050	94	90	110			
Lab ID: B25061749-001GMS	Sample Matrix Spike					Run: SFA-202-B_250623A			06/23/25 11:41	
Cyanide, Weak Acid Dissociable		0.0993	mg/L	0.0050	99	80	120			
Lab ID: B25061749-001GMSD	Sample Matrix Spike Duplicate					Run: SFA-202-B_250623A			06/23/25 11:45	
Cyanide, Weak Acid Dissociable		0.0965	mg/L	0.0050	96	80	120	2.9	10	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B25061875

Report Date: 07/01/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7		Analytical Run: ICP205-B_250623A								
Lab ID: ICV	6	Continuing Calibration Verification Standard							06/23/25 14:52	
Boron		2.59	mg/L	0.10	104	95	105			
Calcium		25.2	mg/L	1.0	101	95	105			
Magnesium		25.3	mg/L	1.0	101	95	105			
Potassium		25.0	mg/L	1.0	100	95	105			
Sodium		25.1	mg/L	1.0	101	95	105			
Uranium		2.50	mg/L	0.10	100	95	105			
Lab ID: CCV	6	Continuing Calibration Verification Standard							06/23/25 17:07	
Boron		2.57	mg/L	0.10	103	90	110			
Calcium		25.0	mg/L	1.0	100	90	110			
Magnesium		25.2	mg/L	1.0	101	90	110			
Potassium		24.8	mg/L	1.0	99	90	110			
Sodium		25.0	mg/L	1.0	100	90	110			
Uranium		2.48	mg/L	0.10	99	90	110			
Method: E200.7		Batch: R444669								
Lab ID: MB-5900DIS250623A	6	Method Blank				Run: ICP205-B_250623A			06/23/25 15:06	
Boron		ND	mg/L	0.006						
Calcium		ND	mg/L	0.06						
Magnesium		ND	mg/L	0.05						
Potassium		ND	mg/L	0.1						
Sodium		ND	mg/L	0.05						
Uranium		ND	mg/L	0.04						
Lab ID: LFB-5900DIS250623A	6	Laboratory Fortified Blank				Run: ICP205-B_250623A			06/23/25 15:08	
Boron		1.03	mg/L	0.10	103	85	115			
Calcium		49.7	mg/L	1.0	99	85	115			
Magnesium		50.3	mg/L	1.0	101	85	115			
Potassium		49.9	mg/L	1.0	100	85	115			
Sodium		50.1	mg/L	1.0	100	85	115			
Uranium		1.04	mg/L	0.10	104	85	115			
Lab ID: B25061874-001CMS2	6	Sample Matrix Spike				Run: ICP205-B_250623A			06/23/25 17:06	
Boron		1.06	mg/L	0.050	106	70	130			
Calcium		53.7	mg/L	1.0	103	70	130			
Magnesium		53.9	mg/L	1.0	105	70	130			
Potassium		53.7	mg/L	1.0	104	70	130			
Sodium		54.8	mg/L	1.0	104	70	130			
Uranium		0.999	mg/L	0.10	100	70	130			
Lab ID: B25061874-001CMSD2	6	Sample Matrix Spike Duplicate				Run: ICP205-B_250623A			06/23/25 17:10	
Boron		1.12	mg/L	0.050	112	70	130	5.3	20	
Calcium		56.6	mg/L	1.0	109	70	130	5.3	20	
Magnesium		56.9	mg/L	1.0	111	70	130	5.3	20	
Potassium		56.7	mg/L	1.0	110	70	130	5.4	20	
Sodium		57.4	mg/L	1.0	109	70	130	4.6	20	

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QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B25061875

Report Date: 07/01/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R444669
Lab ID: B25061874-001CMSD2	6	Sample Matrix Spike Duplicate				Run: ICP205-B_250623A				06/23/25 17:10
Uranium		1.05	mg/L	0.10	105	70	130	5.4	20	
Method: E200.7										Analytical Run: ICP205-B_250625B
Lab ID: ICV		Continuing Calibration Verification Standard								06/25/25 13:49
Boron		2.55	mg/L	0.10	102	95	105			
Lab ID: CCV		Continuing Calibration Verification Standard								06/25/25 18:14
Boron		2.59	mg/L	0.10	103	90	110			
Method: E200.7										Batch: 200879
Lab ID: MB-200879		Method Blank				Run: ICP205-B_250625B				06/25/25 18:07
Boron		ND	mg/L	0.008						
Lab ID: LCS3-200879		Laboratory Control Sample				Run: ICP205-B_250625B				06/25/25 18:08
Boron		1.07	mg/L	0.10	107	85	115			
Lab ID: B25061874-001DMS3		Sample Matrix Spike				Run: ICP205-B_250625B				06/25/25 18:18
Boron		1.07	mg/L	0.050	107	70	130			
Lab ID: B25061874-001DMSD3		Sample Matrix Spike Duplicate				Run: ICP205-B_250625B				06/25/25 18:19
Boron		1.07	mg/L	0.050	107	70	130	0.1	20	

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QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B25061875

Report Date: 07/01/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS208-B_250625B		
Lab ID: QCS	10	Initial Calibration Verification Standard							06/25/25 17:31	
Aluminum		0.201	mg/L	0.020	101	90	110			
Antimony		0.0415	mg/L	0.0050	104	90	110			
Arsenic		0.0386	mg/L	0.0050	96	90	110			
Copper		0.0382	mg/L	0.010	96	90	110			
Iron		0.208	mg/L	0.020	104	90	110			
Lead		0.0399	mg/L	0.0010	100	90	110			
Manganese		0.192	mg/L	0.0050	96	90	110			
Molybdenum		0.0420	mg/L	0.0050	105	90	110			
Silver		0.0209	mg/L	0.0050	105	90	110			
Zinc		0.0384	mg/L	0.0050	96	90	110			
Lab ID: CCV	10	Continuing Calibration Verification Standard							06/25/25 17:37	
Aluminum		0.0482	mg/L	0.020	96	90	110			
Antimony		0.0503	mg/L	0.0050	101	90	110			
Arsenic		0.0474	mg/L	0.0050	95	90	110			
Copper		0.0464	mg/L	0.010	93	90	110			
Iron		1.26	mg/L	0.020	97	90	110			
Lead		0.0499	mg/L	0.0010	100	90	110			
Manganese		0.0475	mg/L	0.0050	95	90	110			
Molybdenum		0.0507	mg/L	0.0050	101	90	110			
Silver		0.0201	mg/L	0.0050	100	90	110			
Zinc		0.0476	mg/L	0.0050	95	90	110			
Lab ID: QCS	10	Initial Calibration Verification Standard							06/26/25 18:52	
Aluminum		0.202	mg/L	0.020	101	90	110			
Antimony		0.0414	mg/L	0.0050	104	90	110			
Arsenic		0.0377	mg/L	0.0050	94	90	110			
Copper		0.0375	mg/L	0.010	94	90	110			
Iron		0.199	mg/L	0.020	100	90	110			
Lead		0.0392	mg/L	0.0010	98	90	110			
Manganese		0.188	mg/L	0.0050	94	90	110			
Molybdenum		0.0415	mg/L	0.0050	104	90	110			
Silver		0.0201	mg/L	0.0050	100	90	110			
Zinc		0.0376	mg/L	0.0050	94	90	110			
Lab ID: CCV	10	Continuing Calibration Verification Standard							06/26/25 23:02	
Aluminum		0.0498	mg/L	0.020	100	90	110			
Antimony		0.0500	mg/L	0.0050	100	90	110			
Arsenic		0.0462	mg/L	0.0050	92	90	110			
Copper		0.0454	mg/L	0.010	91	90	110			
Iron		1.18	mg/L	0.020	90	90	110			
Lead		0.0482	mg/L	0.0010	96	90	110			
Manganese		0.0462	mg/L	0.0050	92	90	110			
Molybdenum		0.0503	mg/L	0.0050	101	90	110			
Silver		0.0191	mg/L	0.0050	96	90	110			
Zinc		0.0453	mg/L	0.0050	91	90	110			

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QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B25061875

Report Date: 07/01/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										
Analytical Run: ICPMS208-B_250625B										
Lab ID:	CCV	10 Continuing Calibration Verification Standard							06/26/25 23:02	
Method: E200.8										
Batch: 200879										
Lab ID:	MB-200879	12 Method Blank				Run: ICPMS208-B_250625B			06/26/25 19:28	
Aluminum		ND	mg/L	0.002						
Antimony		ND	mg/L	0.0004						
Arsenic		ND	mg/L	0.0002						
Chromium		ND	mg/L	0.0005						
Copper		ND	mg/L	0.00009						
Iron		ND	mg/L	0.006						
Lead		ND	mg/L	0.00004						
Manganese		ND	mg/L	0.00009						
Molybdenum		ND	mg/L	0.0001						
Silver		ND	mg/L	5E-6						
Thallium		ND	mg/L	0.0003						
Zinc		ND	mg/L	0.001						
Lab ID:	LCS4-200879	12 Laboratory Control Sample				Run: ICPMS208-B_250625B			06/26/25 19:46	
Aluminum		0.496	mg/L	0.010	99	85	115			
Antimony		0.101	mg/L	0.0050	101	85	115			
Arsenic		0.0923	mg/L	0.0010	92	85	115			
Chromium		0.0900	mg/L	0.0010	90	85	115			
Copper		0.0906	mg/L	0.0010	91	85	115			
Iron		0.494	mg/L	0.010	99	85	115			
Lead		0.0976	mg/L	0.0010	98	85	115			
Manganese		0.457	mg/L	0.0010	91	85	115			
Molybdenum		0.100	mg/L	0.0050	100	85	115			
Silver		0.00970	mg/L	0.0050	97	85	115			
Thallium		0.109	mg/L	0.0010	109	85	115			
Zinc		0.0933	mg/L	0.0020	93	85	115			
Lab ID:	B25061784-001BMS4	12 Sample Matrix Spike				Run: ICPMS208-B_250625B			06/26/25 22:20	
Aluminum		0.672	mg/L	0.030	107	70	130			
Antimony		0.102	mg/L	0.0010	102	70	130			
Arsenic		0.100	mg/L	0.0010	97	70	130			
Chromium		0.0944	mg/L	0.0050	93	70	130			
Copper		0.0913	mg/L	0.0050	91	70	130			
Iron		8.78	mg/L	0.020		70	130			A
Lead		0.103	mg/L	0.0010	103	70	130			
Manganese		2.19	mg/L	0.0010	85	70	130			
Molybdenum		0.102	mg/L	0.0010	101	70	130			
Silver		0.0100	mg/L	0.0010	100	70	130			
Thallium		0.120	mg/L	0.00050	120	70	130			
Zinc		0.0962	mg/L	0.010	95	70	130			
Lab ID:	B25061784-001BMSD4	12 Sample Matrix Spike Duplicate				Run: ICPMS208-B_250625B			06/26/25 22:26	
Aluminum		0.654	mg/L	0.030	103	70	130	2.7	20	

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QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B25061875

Report Date: 07/01/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: 200879
Lab ID: B25061784-001BMSD4	12	Sample Matrix Spike Duplicate		Run: ICPMS208-B_250625B				06/26/25 22:26		
Antimony		0.103	mg/L	0.0010	103	70	130	0.9	20	
Arsenic		0.0958	mg/L	0.0010	92	70	130	4.5	20	
Chromium		0.0912	mg/L	0.0050	90	70	130	3.4	20	
Copper		0.0880	mg/L	0.0050	87	70	130	3.6	20	
Iron		8.43	mg/L	0.020		70	130	4.1	20	A
Lead		0.101	mg/L	0.0010	101	70	130	2.1	20	
Manganese		2.14	mg/L	0.0010	75	70	130	2.4	20	
Molybdenum		0.102	mg/L	0.0010	102	70	130	0.7	20	
Silver		0.00971	mg/L	0.0010	97	70	130	3.1	20	
Thallium		0.116	mg/L	0.00050	116	70	130	3.1	20	
Zinc		0.0944	mg/L	0.010	93	70	130	1.9	20	
Lab ID: B25061875-001EMS4	12	Sample Matrix Spike		Run: ICPMS208-B_250625B				06/26/25 23:43		
Aluminum		0.505	mg/L	0.030	100	70	130			
Antimony		0.102	mg/L	0.0010	102	70	130			
Arsenic		0.127	mg/L	0.0010	98	70	130			
Chromium		0.0931	mg/L	0.0050	93	70	130			
Copper		0.0896	mg/L	0.0050	88	70	130			
Iron		10.9	mg/L	0.020		70	130			A
Lead		0.100	mg/L	0.0010	100	70	130			
Manganese		1.04	mg/L	0.0010	95	70	130			
Molybdenum		1.38	mg/L	0.0010		70	130			A
Silver		0.00968	mg/L	0.0010	97	70	130			
Thallium		0.105	mg/L	0.0010	105	70	130			
Zinc		0.0929	mg/L	0.010	90	70	130			
Lab ID: B25061875-001EMSD4	12	Sample Matrix Spike Duplicate		Run: ICPMS208-B_250625B				06/26/25 23:49		
Aluminum		0.486	mg/L	0.030	96	70	130	3.8	20	
Antimony		0.0996	mg/L	0.0010	100	70	130	2.4	20	
Arsenic		0.122	mg/L	0.0010	93	70	130	4.2	20	
Chromium		0.0890	mg/L	0.0050	89	70	130	4.6	20	
Copper		0.0864	mg/L	0.0050	85	70	130	3.7	20	
Iron		10.9	mg/L	0.020		70	130	0.1	20	A
Lead		0.0948	mg/L	0.0010	95	70	130	5.7	20	
Manganese		1.02	mg/L	0.0010	91	70	130	2.1	20	
Molybdenum		1.35	mg/L	0.0010		70	130	2.2	20	A
Silver		0.00917	mg/L	0.0010	92	70	130	5.4	20	
Thallium		0.103	mg/L	0.0010	103	70	130	2.2	20	
Zinc		0.0879	mg/L	0.010	85	70	130	5.5	20	
Method: E200.8										Batch: R444816
Lab ID: LRB		Method Blank		Run: ICPMS208-B_250625B				06/25/25 13:14		
Silver		ND	mg/L	5E-6						
Lab ID: LFB		Laboratory Fortified Blank		Run: ICPMS208-B_250625B				06/25/25 18:01		
Silver		0.0186	mg/L	0.0050	93	85	115			

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Work Order: B25061875

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Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R444816
Lab ID: B25061894-001CMS		Sample Matrix Spike				Run: ICPMS208-B_250625B				06/25/25 19:42
Silver		0.0192	mg/L	0.0010	96	70	130			
Lab ID: B25061894-001CMSD		Sample Matrix Spike Duplicate				Run: ICPMS208-B_250625B				06/25/25 19:48
Silver		0.0200	mg/L	0.0010	100	70	130	3.8	20	
Lab ID: B25062003-004AMS		Sample Matrix Spike				Run: ICPMS208-B_250625B				06/26/25 17:09
Silver		0.0176	mg/L	0.0010	88	70	130			
Lab ID: B25062003-004AMSD		Sample Matrix Spike Duplicate				Run: ICPMS208-B_250625B				06/26/25 17:15
Silver		0.0182	mg/L	0.0010	91	70	130	3.3	20	

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Work Order: B25061875

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Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8		Analytical Run: ICPMS209-B_250623A								
Lab ID: QCS	10	Initial Calibration Verification Standard							06/23/25 20:02	
Aluminum		0.216	mg/L	0.020	108	90	110			
Arsenic		0.0390	mg/L	0.0050	98	90	110			
Chromium		0.0389	mg/L	0.010	97	90	110			
Copper		0.0385	mg/L	0.010	96	90	110			
Iron		0.200	mg/L	0.020	100	90	110			
Lead		0.0409	mg/L	0.0010	102	90	110			
Manganese		0.195	mg/L	0.0050	97	90	110			
Molybdenum		0.0412	mg/L	0.0050	103	90	110			
Thallium		0.0415	mg/L	0.0050	104	90	110			
Zinc		0.0389	mg/L	0.0050	97	90	110			
Lab ID: CCV	10	Continuing Calibration Verification Standard							06/24/25 01:01	
Aluminum		0.0508	mg/L	0.020	102	90	110			
Arsenic		0.0481	mg/L	0.0050	96	90	110			
Chromium		0.0474	mg/L	0.010	95	90	110			
Copper		0.0471	mg/L	0.010	94	90	110			
Iron		1.26	mg/L	0.020	97	90	110			
Lead		0.0486	mg/L	0.0010	97	90	110			
Manganese		0.0480	mg/L	0.0050	96	90	110			
Molybdenum		0.0499	mg/L	0.0050	100	90	110			
Thallium		0.0470	mg/L	0.0050	94	90	110			
Zinc		0.0477	mg/L	0.0050	95	90	110			
Method: E200.8		Batch: R444636								
Lab ID: LRB	10	Method Blank							Run: ICPMS209-B_250623A 06/23/25 11:40	
Aluminum		ND	mg/L	0.0005						
Arsenic		ND	mg/L	0.00002						
Chromium		ND	mg/L	0.00008						
Copper		ND	mg/L	0.00005						
Iron		ND	mg/L	0.001						
Lead		ND	mg/L	0.00001						
Manganese		ND	mg/L	0.00007						
Molybdenum		ND	mg/L	0.0002						
Thallium		ND	mg/L	0.00007						
Zinc		ND	mg/L	0.001						
Lab ID: LFB	10	Laboratory Fortified Blank							Run: ICPMS209-B_250623A 06/23/25 20:29	
Aluminum		0.0478	mg/L	0.020	96	85	115			
Arsenic		0.0453	mg/L	0.0050	91	85	115			
Chromium		0.0448	mg/L	0.010	90	85	115			
Copper		0.0439	mg/L	0.010	88	85	115			
Iron		4.76	mg/L	0.020	95	85	115			
Lead		0.0477	mg/L	0.0010	95	85	115			
Manganese		0.0452	mg/L	0.0050	90	85	115			
Molybdenum		0.0479	mg/L	0.0050	96	85	115			
Thallium		0.0462	mg/L	0.0050	92	85	115			

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Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R444636
Lab ID: LFB	10	Laboratory Fortified Blank			Run: ICPMS209-B_250623A			06/23/25 20:29		
Zinc		0.0437	mg/L	0.0050	87	85	115			
Lab ID: B25061815-001AMS	10	Sample Matrix Spike			Run: ICPMS209-B_250623A			06/24/25 01:28		
Aluminum		0.0606	mg/L	0.030	97	70	130			
Arsenic		0.0485	mg/L	0.0010	96	70	130			
Chromium		0.0462	mg/L	0.0050	92	70	130			
Copper		0.0446	mg/L	0.0050	89	70	130			
Iron		4.97	mg/L	0.020	99	70	130			
Lead		0.0476	mg/L	0.0010	95	70	130			
Manganese		0.0505	mg/L	0.0010	92	70	130			
Molybdenum		0.0643	mg/L	0.0010	98	70	130			
Thallium		0.0464	mg/L	0.00050	93	70	130			
Zinc		0.0445	mg/L	0.010	89	70	130			
Lab ID: B25061815-001AMSD	10	Sample Matrix Spike Duplicate			Run: ICPMS209-B_250623A			06/24/25 01:33		
Aluminum		0.0586	mg/L	0.030	93	70	130	3.3	20	
Arsenic		0.0461	mg/L	0.0010	91	70	130	5.1	20	
Chromium		0.0443	mg/L	0.0050	89	70	130	4.2	20	
Copper		0.0427	mg/L	0.0050	85	70	130	4.5	20	
Iron		4.90	mg/L	0.020	98	70	130	1.4	20	
Lead		0.0448	mg/L	0.0010	90	70	130	6.1	20	
Manganese		0.0487	mg/L	0.0010	88	70	130	3.6	20	
Molybdenum		0.0622	mg/L	0.0010	94	70	130	3.2	20	
Thallium		0.0439	mg/L	0.00050	88	70	130	5.5	20	
Zinc		0.0429	mg/L	0.010	86	70	130	3.7	20	

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Work Order: B25061875

Report Date: 07/01/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8 Analytical Run: ICPMS209-B_250625B										
Lab ID: QCS	Initial Calibration Verification Standard 06/26/25 23:47									
Antimony		0.0403	mg/L	0.0050	101	90	110			
Lab ID: CCV Continuing Calibration Verification Standard 06/26/25 23:52										
Antimony		0.0476	mg/L	0.0050	95	90	110			
Method: E200.8 Batch: 200879										
Lab ID: MB-200879	Method Blank Run: ICPMS209-B_250625B 06/27/25 03:33									
Antimony		ND	mg/L	0.00002						
Method: E200.8 Batch: R444817										
Lab ID: LRB	Method Blank Run: ICPMS209-B_250625B 06/25/25 14:02									
Antimony		0.00009	mg/L	0.00002						
Lab ID: LFB	Laboratory Fortified Blank Run: ICPMS209-B_250625B 06/25/25 14:19									
Antimony		0.0484	mg/L	0.0050	97	85	115			
Lab ID: B25061875-001DMS	Sample Matrix Spike Run: ICPMS209-B_250625B 06/27/25 00:31									
Antimony		0.0906	mg/L	0.0010	91	70	130			
Lab ID: B25061875-001DMSD	Sample Matrix Spike Duplicate Run: ICPMS209-B_250625B 06/27/25 00:36									
Antimony		0.0960	mg/L	0.0010	96	70	130	5.8	20	
Method: E200.8 Analytical Run: ICPMS209-B_250627A										
Lab ID: QCS	2	Initial Calibration Verification Standard 06/27/25 13:39								
Chromium		0.0400	mg/L	0.010	100	90	110			
Thallium		0.0419	mg/L	0.0050	105	90	110			
Lab ID: CCV	2	Continuing Calibration Verification Standard 06/27/25 17:22								
Chromium		0.0491	mg/L	0.010	98	90	110			
Thallium		0.0488	mg/L	0.0050	97	90	110			
Method: E200.8 Batch: 200879										
Lab ID: MB-200879	2	Method Blank Run: ICPMS209-B_250627A 06/27/25 16:50								
Chromium		ND	mg/L	0.0003						
Thallium		ND	mg/L	0.00008						

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B25061875

Report Date: 07/01/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method:	E245.1								Analytical Run: HGCV203-B_250624A		
Lab ID:	ICV-200839	Initial Calibration Verification Standard								06/24/25 12:51	
Mercury		0.00201	mg/L	0.00010	101	90	110				
Lab ID:	CCV1	Continuing Calibration Verification Standard								06/24/25 12:54	
Mercury		0.00250	mg/L	0.00010	100	95	105				
Lab ID:	CCV	Continuing Calibration Verification Standard								06/24/25 15:10	
Mercury		0.00244	mg/L	0.00010	98	90	110				
Method:	E245.1								Batch: 200859		
Lab ID:	MB-200859	Method Blank				Run: HGCV203-B_250624A				06/24/25 14:57	
Mercury		ND	mg/L	0.00006							
Lab ID:	LCS-200859	Laboratory Control Sample				Run: HGCV203-B_250624A				06/24/25 14:58	
Mercury		0.00208	mg/L	0.00010	104	85	115				
Lab ID:	B25061796-001BMS	Sample Matrix Spike				Run: HGCV203-B_250624A				06/24/25 15:01	
Mercury		0.00207	mg/L	0.00010	103	70	130				
Lab ID:	B25061796-001BMSD	Sample Matrix Spike Duplicate				Run: HGCV203-B_250624A				06/24/25 15:02	
Mercury		0.00218	mg/L	0.00010	109	70	130	5.6	30		
Lab ID:	B25061918-001BMS	Sample Matrix Spike				Run: HGCV203-B_250624A				06/24/25 15:34	
Mercury		0.00198	mg/L	0.00010	99	70	130				
Lab ID:	B25061918-001BMSD	Sample Matrix Spike Duplicate				Run: HGCV203-B_250624A				06/24/25 15:35	
Mercury		0.00216	mg/L	0.00010	108	70	130	8.7	30		

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: B25061875

Report Date: 07/14/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E900.0										Batch: GrAB-3441
Lab ID: Th230-GrAB-3441	3	Laboratory Control Sample				Run: TENNELEC-4_250707D				07/11/25 01:46
Gross Alpha		86	pCi/L		86	70	130			
Gross Alpha precision (±)		19	pCi/L							
Gross Alpha MDC		1.4	pCi/L							
Lab ID: Sr90-GrAB-3441	3	Laboratory Control Sample				Run: TENNELEC-4_250707D				07/11/25 01:46
Gross Beta		180	pCi/L		98	70	130			
Gross Beta precision (±)		12	pCi/L							
Gross Beta MDC		2.1	pCi/L							
Lab ID: MB-GrAB-3441	6	Method Blank				Run: TENNELEC-4_250707D				07/11/25 01:46
Gross Alpha		-0.6	pCi/L							U
Gross Alpha precision (±)		0.6	pCi/L							
Gross Alpha MDC		1	pCi/L							
Gross Beta		-0.1	pCi/L							U
Gross Beta precision (±)		1	pCi/L							
Gross Beta MDC		2	pCi/L							
Lab ID: C25060196-010DDUP	6	Sample Duplicate				Run: TENNELEC-4_250707D				07/11/25 01:46
Gross Alpha		22	pCi/L					0.1	30	
Gross Alpha precision (±)		5.2	pCi/L							
Gross Alpha MDC		1.6	pCi/L							
Gross Beta		8.5	pCi/L					22	30	
Gross Beta precision (±)		1.4	pCi/L							
Gross Beta MDC		2.6	pCi/L							
- The RER result for Alpha is 0.00 and Beta is 1.07.										
Lab ID: C25060691-006DMS	3	Sample Matrix Spike				Run: TENNELEC-4_250707D				07/12/25 02:18
Gross Alpha		92	pCi/L		92	70	130			
Gross Alpha precision (±)		20	pCi/L							
Gross Alpha MDC		1.5	pCi/L							
Lab ID: C25060691-006DMSD	3	Sample Matrix Spike Duplicate				Run: TENNELEC-4_250707D				07/12/25 02:18
Gross Alpha		95	pCi/L		95	70	130	3.2	30	
Gross Alpha precision (±)		21	pCi/L							
Gross Alpha MDC		1.6	pCi/L							
- The RER result is 0.10.										
Lab ID: C25060779-003DMS1	3	Sample Matrix Spike				Run: TENNELEC-4_250707D				07/12/25 02:18
Gross Beta		230	pCi/L		98	70	130			
Gross Beta precision (±)		15	pCi/L							
Gross Beta MDC		2.3	pCi/L							
Lab ID: C25060779-003DMSD1	3	Sample Matrix Spike Duplicate				Run: TENNELEC-4_250707D				07/12/25 02:18
Gross Beta		230	pCi/L		97	70	130	1.0	30	
Gross Beta precision (±)		15	pCi/L							
Gross Beta MDC		2.4	pCi/L							
- The RER result is 0.11.										

Qualifiers:

RL - Analyte Reporting Limit
U - Not detected

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: B25061875

Report Date: 07/14/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0								Batch: RA226-11718		
Lab ID: LCS-RA226-11718	3	Laboratory Control Sample				Run: TENNELEC-4_250624A			06/30/25 14:01	
Radium 226		12	pCi/L		118	70	130			
Radium 226 precision (±)		1.9	pCi/L							
Radium 226 MDC		0.24	pCi/L							
Lab ID: MB-RA226-11718	3	Method Blank				Run: TENNELEC-4_250624A			06/30/25 14:01	
Radium 226		0.03	pCi/L							U
Radium 226 precision (±)		0.2	pCi/L							
Radium 226 MDC		0.3	pCi/L							
Lab ID: C25060318-005DDUP	3	Sample Duplicate				Run: TENNELEC-4_250624A			06/30/25 14:01	
Radium 226		90	pCi/L					3.3	30	
Radium 226 precision (±)		14	pCi/L							
Radium 226 MDC		0.26	pCi/L							
- The RER result is 0.15.										
Method: E903.0								Batch: RA226-11723		
Lab ID: LCS-RA226-11723	3	Laboratory Control Sample				Run: TENNELEC-4_250630C			07/08/25 10:04	
Radium 226		9.3	pCi/L		93	70	130			
Radium 226 precision (±)		1.5	pCi/L							
Radium 226 MDC		0.17	pCi/L							
Lab ID: MB-RA226-11723	3	Method Blank				Run: TENNELEC-4_250630C			07/08/25 10:04	
Radium 226		0.1	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Lab ID: C25060799-001HDUP	3	Sample Duplicate				Run: TENNELEC-4_250630C			07/08/25 14:55	
Radium 226		0.012	pCi/L					170	30	UR
Radium 226 precision (±)		0.11	pCi/L							
Radium 226 MDC		0.19	pCi/L							
- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 0.70.										

Qualifiers:

RL - Analyte Reporting Limit

R - Relative Percent Difference (RPD) exceeds advisory limit

ND - Not detected at the Reporting Limit (RL)

U - Not detected



QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: B25061875

Report Date: 07/14/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: RA228-7691
Lab ID: LCS-228-RA226-11723	3	Laboratory Control Sample			Run: TENNELEC-4_250630A			07/03/25 12:32		
Radium 228		10	pCi/L	112		70	130			
Radium 228 precision (±)		2.7	pCi/L							
Radium 228 MDC		1.1	pCi/L							
Lab ID: MB-RA226-11723	3	Method Blank			Run: TENNELEC-4_250630A			07/03/25 12:32		
Radium 228		0.4	pCi/L							U
Radium 228 precision (±)		0.6	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID: C25060799-001HDUP	3	Sample Duplicate			Run: TENNELEC-4_250630A			07/03/25 12:32		
Radium 228		0.31	pCi/L					81	30	UR
Radium 228 precision (±)		0.64	pCi/L							
Radium 228 MDC		1.0	pCi/L							

- Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3. The RER result is 0.43.

Qualifiers:

RL - Analyte Reporting Limit

R - Relative Percent Difference (RPD) exceeds advisory limit

ND - Not detected at the Reporting Limit (RL)

U - Not detected



Work Order Receipt Checklist

Linkan Engineering

B25061875

Login completed by: Danielle N. Harris

Date Received: 6/20/2025

Reviewed by: cjones

Received by: EAH

Reviewed Date: 6/30/2025

Carrier name: Return-FedEx NDA

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☐	No ☒	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☒	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☒	No ☐	Not Applicable ☐
Container/Temp Blank temperature:	5.0°C Blue Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☒	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The collection time for the dissolved radium, orthophosphate and dissolved metals containers is not provided and on the chain of custody it is 09:40. Proceeded with the collection time as indicated on the chain of custody. DNH 06/20/25

Laboratory Certifications and Accreditations

Current certificates are available at www.energylab.com website:

	Agency	Number
Billings, MT  	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY 	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090



Trust our People. Trust our Data.

Chain of Custody & Analytical Request Record

www.energylab.com

Page 1 of 1

Account Information (Billing information)

Company/Name Linkan	
Contact	Chris Prosper
Phone	775-777-8003
Mailing Address	2720 Ruby Vista Dr
City, State, Zip	Elko, NV 89801
Email	AP@linkan.com
Receive Invoice	☐ Hard Copy ☒ Email
Purchase Order	Quote H17287
25-0152	Bottle Order 193747

Report Information (if different than Account Information)

Company/Name Linkan	
Contact	Alex Schwiebert
Phone	775-397-6779
Mailing Address	2720 Ruby Vista Dr
City, State, Zip	Elko, NV 89801
Email	see comments
Receive Report	☐ Hard Copy ☒ Email
Special Report/Forms:	☐ LEVEL IV ☐ NELAC ☒ EDD/EDT (contact laboratory) ☐ Other

Comments

Quarterly Sampling - Mine Pool

Please email Report and EDD results to:
chris.prosper@linkan.com
adam.bilin@linkan.com
alex.schwiebert@linkan.com
peter.hays@state.co.us

Project Information

Project Name, PWSID, Permit, etc. Schwartzwalder Mine	
Sampler Name	Bryant Acavado
Sampler Phone	720-230-6669
Sample Origin	State of Colorado
EPAS/State Compliance	☒ Yes ☐ No
URANIUM MINING CLIENTS MUST indicate sample type	
☐ Unprocessed Ore	
☐ Processed Ore (Ground or Refined) **CALL BEFORE SENDING	
☐ 11(e)2 Byproduct Material (Can ONLY be Submitted to ELI Casper Location)	

Matrix Codes

A - Air	W - Water
S - Solids	V - Vegetation
B - Bioassay	O - Oil
DW - Drinking Water	

Analysis Requested

Low Level Phosphorus	Anions (E300.0)	Total Suspended Solids	Metals, Dissolved	Metals Total	Nitrogen, Nitrate + Nitrite	Cyanide, WAD	Gross Alpha, Gross Beta, Total	Radium Radium 226 +	See Attached
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All turnaround times are standard unless marked as RUSH.

Energy Laboratories MUST be contacted prior to RUSH sample submittal for charges and scheduling - See Instructions Page

Sample Identification (Name, Location, Interval, etc.)	Collection Date	Time	Number of Containers	Matrix (See Codes Above)	Low Level Phosphorus	Anions (E300.0)	Total Suspended Solids	Metals, Dissolved	Metals Total	Nitrogen, Nitrate + Nitrite	Cyanide, WAD	Gross Alpha, Gross Beta, Total	Radium Radium 226 +	See Attached	RUSH TAT	ELI LAB ID Laboratory Use Only
1 Mine Pool	6/19/25	0940	10	W												3250.1875
2																
3																
4																
5																
6																
7																
8																
9																

ELI IS REQUIRED TO provide preservative traceability. If the preservatives supplied with the bottle order were NOT used, please attach your preservative information with this COC.

Custody Record MUST be signed	Relinquished by (print) Bryant Acavado	Date/Time 6/19/25/1536	Signature [Signature]	Received by (print) Elizabeth Foltson	Date/Time 6/23/25 1025	Signature [Signature]			
	Relinquished by (print)	Date/Time	Signature	Received by (print)	Date/Time	Signature			
Shipped By	Cooler ID(s)	Custody Seals Y N C B	Intact Y N	Receipt Temp °C	Temp Blank Y N	On Ice Y N	Payment Type Cash Check	Amount \$	Receipt Number (cash/check only)

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All subcontracted data will be clearly notated on your analytical report.



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www.energylab.com

Billings, MT 406.252.6325 • Casper, WY 307.235.0515 • Gillette, WY 307.686.7175 • Helena, MT 406.442.0711



BOTTLE ORDER 193747

SHIPPED Linkan Engineering

TO:

To report an issue with this order, view Safety Data Sheets, or let us know how we are doing, scan here or go to energylab.com/contact-us



Contact: Chris Prosper

400 Corporate Circle, Suite H
Golden CO 80401

Phone: (719) 247-0564

Project: Schwartzwalder Mine - Table 2B

Order Created by: Yvonna E. Smith

Shipped From: Billings, MT

Ship Date: 4/17/2025

VIA: Ground

Quote Used: 17287

Bottle Size/Type	Bottles Per Samp	Method	Tests	Critical Hold Time	Preservative	Notes	Num of Samp
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Table 2B Quarterly (4 Sets)

120 mL Plastic	1	E365.1	Low Level Phosphorus, Orthophosphate as P	48.00 hrs		Filter Sample	1
1 Liter Plastic	1	A2320 B A4500-O G E300.0 A2540 C	Alkalinity to pH 4.5 Oxygen, Dissolved Anions by Ion Chromatography Solids, Total Dissolved	0.25 hrs			1
1 Liter Plastic Wide Mouth	1	A2540 D	Solids, Total Suspended			Fill to the neck of the container.	1
250 mL Plastic	1	E200.7_8 E245.1 E245.1	Metals by ICP/ICPMS, Dissolved Mercury, Dissolved Mercury Digestion by E245.1		HNO3	Filter before preservation	1
250 mL Plastic	1	E200.7_8 E245.1 E200.2 E245.1	Metals by ICP/ICPMS, Total Mercury, Total Metals Digestion by E200.2 Mercury Digestion by E245.1		HNO3		1

BO#: 193747

1 of 2

250 mL Plastic	1	E353.2 E365.1 E365.1	Nitrogen, Nitrate + Nitrite E365.1 Digestion, Total P Low level Phosphorus, Total		 H2SO4	1
500 mL Amber Plastic	1	Kelada-01	Cyanide, Weak Acid Dissociable		 NaOH	1
500 mL Plastic	1	E900.0	Gross Alpha, Gross Beta, Total		 HNO3	1
1 Gallon Plastic	1	E903.0	Radium 226, Dissolved		 HNO3	1
1 Gallon Plastic	1	A7500-RA E903.0 RA-05	Radium 226 + Radium 228 Radium 226, Total Radium 228, Total		 HNO3	1

Comments

 HNO3 - Nitric Acid  ZnAc - Zinc Acetate	 H2SO4 - Sulfuric Acid  HCl - Hydrochloric Acid	 NaOH - Sodium Hydroxide ☐ H3PO4 - Phosphoric Acid	We strongly suggest that the samples are shipped the same day as they are collected.
Material Safety Data Sheets(MSDS) Available @ EnergyLab.com ->Services -> MSDS Sheets Corrosive Chemicals: Nitric, Sulfuric, Phosphoric, Hydrochloric Acids and Sodium Hydroxide. Zinc Acetate is a skin irritant. Subcontracting of sample analyses to an outside laboratory may be required. If so, Energy Laboratories will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.			

BO#: 193747

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