



# ANALYTICAL SUMMARY REPORT

February 15, 2017

Lehrkinds Big Spring  
201 1st Ave N  
Lewistown, MT 59457-1725

Work Order: B17020463  
Project Name: MT0001229

Energy Laboratories Inc Billings MT received the following 1 sample for Lehrkinds Big Spring on 2/8/2017 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B17020463-001	Source	02/07/17 10:00	02/08/17	Drinking Water	Metals by ICP/ICPMS, Drinking Water Alkalinity Color Fluoride Anions by Ion Chromatography Nitrogen, Nitrate + Nitrite pH Drinking Water Metals Digestion by EPA 200.2 Preparation for TDS Solids, Total Dissolved Turbidity

The analyses presented in this report were performed by Energy Laboratories, Inc., 1120 S 27th St., Billings, MT 59101, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:



**LABORATORY ANALYTICAL REPORT**

Prepared by Billings, MT Branch

**Client:** Lehrkinds Big Spring  
**Client Sample ID:** Source  
**PWS #:** MT0001229 **Name:** LEHRKINDS BIG SPRING WATER  
**Facility ID:** TP001  
**Sampling Point/Location:** EP502 / Source  
**Project ID:** MT0001229  
**Collector's Name:** Don Cates  
**Compliance Sample:** YES

**Lab ID:** B17020463-001  
**Report Date:** 02/15/17  
**Collection Date:** 02/07/17 10:00  
**Date Received:** 02/08/17  
**Matrix:** Drinking Water  
**Federal ID#:** MT00005

**Contact Phone #:** (406) 538-3433

**Sample Type:** RT

FRDS Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
<b>PHYSICAL PROPERTIES</b>							
1925 pH	7.7	s.u.	H	0.1		A4500-H B	02/08/17 15:56 / ldv
1905 Color	5	c.u.		5		A2120 B	02/09/17 08:55 / cjm
0100 Turbidity	0.1	NTU		0.1		A2130 B	02/08/17 15:31 / pjw
1930 Solids, Total Dissolved TDS @ 180 C	280	mg/L		10		A2540 C	02/10/17 09:27 / cjm
<b>INORGANICS</b>							
1927 Alkalinity, Total as CaCO3	160	mg/L		4		A2320 B	02/08/17 15:56 / ldv
1017 Chloride	ND	mg/L		1		E300.0	02/10/17 13:59 / mej
1055 Sulfate	89	mg/L		1		E300.0	02/09/17 20:55 / mej
1025 Fluoride	0.6	mg/L		0.1		A4500-F C	02/13/17 14:59 / cjm
<b>NUTRIENTS</b>							
1038 Nitrogen, Nitrate+Nitrite as N	0.17	mg/L		0.01	10	E353.2	02/09/17 10:30 / ens
<b>METALS, TOTAL</b>							
1002 Aluminum	ND	mg/L		0.03		E200.8	02/09/17 12:12 / jpv
1074 Antimony	ND	mg/L		0.001	0.006	E200.8	02/09/17 12:12 / jpv
1005 Arsenic	ND	mg/L		0.001	0.01	E200.8	02/09/17 12:12 / jpv
1010 Barium	ND	mg/L		0.05	2	E200.8	02/09/17 12:12 / jpv
1075 Beryllium	ND	mg/L		0.001	0.004	E200.8	02/09/17 12:12 / jpv
1015 Cadmium	ND	mg/L		0.001	0.005	E200.8	02/09/17 12:12 / jpv
1016 Calcium	66	mg/L		1		E200.7	02/09/17 13:09 / mas
1020 Chromium	ND	mg/L		0.005	0.1	E200.8	02/09/17 12:12 / jpv
1022 Copper	0.009	mg/L		0.005	1.3	E200.8	02/09/17 12:12 / jpv
1028 Iron	ND	mg/L		0.02		E200.7	02/09/17 13:09 / mas
1030 Lead	ND	mg/L		0.001	0.015	E200.8	02/09/17 12:12 / jpv
1031 Magnesium	20	mg/L		1		E200.7	02/09/17 13:09 / mas
1032 Manganese	ND	mg/L		0.001		E200.8	02/09/17 12:12 / jpv
1035 Mercury	ND	mg/L		0.0001	0.002	E200.8	02/09/17 12:12 / jpv
1036 Nickel	ND	mg/L		0.01		E200.8	02/09/17 12:12 / jpv
1042 Potassium	ND	mg/L		1		E200.7	02/09/17 13:09 / mas
1045 Selenium	ND	mg/L		0.001	0.05	E200.8	02/09/17 12:12 / jpv
1049 Silica	6.0	mg/L		0.2		E200.7	02/09/17 13:09 / mas
SILI Silicon	2.8	mg/L		0.1		E200.7	02/09/17 13:09 / mas
1050 Silver	ND	mg/L		0.001		E200.8	02/09/17 12:12 / jpv
1052 Sodium	1	mg/L		1		E200.7	02/09/17 13:09 / mas

**Report** RL - Analyte reporting limit.

MCL - Maximum contaminant level.

**Definitions:** QCL - Quality control limit.

ND - Not detected at the reporting limit.

H - Analysis performed past recommended holding time.



**LABORATORY ANALYTICAL REPORT**

Prepared by Billings, MT Branch

**Client:** Lehrkinds Big Spring

**Client Sample ID:** Source

**PWS #:** MT0001229 **Name:** LEHRKINDS BIG SPRING WATER

**Facility ID:** TP001

**SamplingPoint/Location:** EP502 / Source

**Project ID:** MT0001229

**Collector's Name:** Don Cates

**Contact Phone #:** (406) 538-3433

**Compliance Sample:** YES

**Sample Type:** RT

**Lab ID:** B17020463-001

**Report Date:** 02/15/17

**Collection Date:** 02/07/17 10:00

**Date Received:** 02/08/17

**Matrix:** Drinking Water

**Federal ID#:** MT00005

FRDS Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
<b>METALS, TOTAL</b>							
1085 Thallium	ND	mg/L		0.0005	0.002	E200.8	02/09/17 12:12 / jpv
1095 Zinc	ND	mg/L		0.01		E200.8	02/09/17 12:12 / jpv

**Report** RL - Analyte reporting limit.

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# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Lehrkinds Big Spring

**Report Date:** 02/15/17

**Project:** MT0001229

**Work Order:** B17020463

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> A2120 B										Batch: R274570
<b>Lab ID:</b> MB-R274570		Method Blank								Run: MISC-WC_170209A 02/09/17 08:55
Color		ND	c.u.							
<b>Lab ID:</b> LCS-R274570		Laboratory Control Sample								Run: MISC-WC_170209A 02/09/17 08:55
Color		25	c.u.	5	100	90	110			
<b>Lab ID:</b> B17020463-001ADUP		Sample Duplicate								Run: MISC-WC_170209A 02/09/17 08:55
Color		5	c.u.	5				0.0	10	

**Qualifiers:**

RL - Analyte reporting limit.

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# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Lehrkinds Big Spring

**Report Date:** 02/15/17

**Project:** MT0001229

**Work Order:** B17020463

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> A2130 B										Batch: 170208A-TURB-W
<b>Lab ID:</b> MBLK (DI H2O)		Method Blank					Run: HACH2100N-2_170208A			02/08/17 15:25
Turbidity		0.07	NTU	0.04						
<b>Lab ID:</b> Turb - 20 NTU		Laboratory Control Sample					Run: HACH2100N-2_170208A			02/08/17 15:26
Turbidity		19.4	NTU	0.10	97	90	110			
<b>Lab ID:</b> Turb - 1.0 NTU		Laboratory Control Sample					Run: HACH2100N-2_170208A			02/08/17 15:26
Turbidity		1.07	NTU	0.10	107	90	110			
<b>Lab ID:</b> B17020457-001ADUP		Sample Duplicate					Run: HACH2100N-2_170208A			02/08/17 15:29
Turbidity		0.110	NTU	0.10				5.3	10	

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# QA/QC Summary Report

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**Report Date:** 02/15/17

**Project:** MT0001229

**Work Order:** B17020463

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> A2320 B										Batch: R274499
<b>Lab ID:</b> MBLK		Method Blank								Run: Metrohm 2_170208A
Alkalinity, Total as CaCO3	2	mg/L		0.7						02/08/17 15:01
<b>Lab ID:</b> LCS		Laboratory Control Sample								Run: Metrohm 2_170208A
Alkalinity, Total as CaCO3	100	mg/L		4.0	98	90	110			02/08/17 15:06
<b>Lab ID:</b> B17020423-001ADUP		Sample Duplicate								Run: Metrohm 2_170208A
Alkalinity, Total as CaCO3	173	mg/L		4.0				0.1	10	02/08/17 15:16
<b>Lab ID:</b> B17020449-001AMS		Sample Matrix Spike								Run: Metrohm 2_170208A
Alkalinity, Total as CaCO3	292	mg/L		4.0	99	80	120			02/08/17 15:26

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# QA/QC Summary Report

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**Project:** MT0001229

**Work Order:** B17020463

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: A2540 C</b> <span style="float: right;">Batch: 106677</span>										
<b>Lab ID: MB-106677</b>		Method Blank								02/10/17 09:19
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	4						
<b>Lab ID: LCS-106677</b> <span style="float: right;">Run: BAL #SD-15_170210C</span>										
		Laboratory Control Sample								02/10/17 09:20
Solids, Total Dissolved TDS @ 180 C		995	mg/L	10	98	90	110			
<b>Lab ID: B17020541-001A DUP</b> <span style="float: right;">Run: BAL #SD-15_170210C</span>										
		Sample Duplicate								02/10/17 09:21
Solids, Total Dissolved TDS @ 180 C		459	mg/L	10				0.0	5	
<b>Lab ID: B17020555-006A DUP</b> <span style="float: right;">Run: BAL #SD-15_170210C</span>										
		Sample Duplicate								02/10/17 09:26
Solids, Total Dissolved TDS @ 180 C		4120	mg/L	40				0.1	5	

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# QA/QC Summary Report

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**Report Date:** 02/15/17

**Project:** MT0001229

**Work Order:** B17020463

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> A4500-F C								Analytical Run: MAN-TECH_170213A		
<b>Lab ID:</b> ICV		Initial Calibration Verification Standard								02/13/17 14:30
Fluoride		1.02	mg/L	0.10	102	90	110			
<b>Method:</b> A4500-F C								Batch: R274814		
<b>Lab ID:</b> MBLK		Method Blank						Run: MAN-TECH_170213A		02/13/17 14:25
Fluoride		ND	mg/L	0.02						
<b>Lab ID:</b> LFB		Laboratory Fortified Blank						Run: MAN-TECH_170213A		02/13/17 14:28
Fluoride		1.08	mg/L	0.10	108	90	110			
<b>Lab ID:</b> B17020386-005AMS		Sample Matrix Spike						Run: MAN-TECH_170213A		02/13/17 14:36
Fluoride		1.09	mg/L	0.10	91	80	120			
<b>Lab ID:</b> B17020386-005AMSD		Sample Matrix Spike Duplicate						Run: MAN-TECH_170213A		02/13/17 14:38
Fluoride		1.11	mg/L	0.10	93	80	120	1.8	10	

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**Project:** MT0001229

**Work Order:** B17020463

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> A4500-H B										Analytical Run: Metrohm 2_170208A
<b>Lab ID:</b> pH 8		Initial Calibration Verification Standard								02/08/17 14:06
pH		7.9	s.u.	0.10	99	98	102			
<b>Method:</b> A4500-H B										Batch: R274499
<b>Lab ID:</b> B17020347-002ADUP		Sample Duplicate								02/08/17 10:42
pH		8.01	s.u.	0.10				0.4	3	Run: Metrohm 2_170208A

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# QA/QC Summary Report

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Client: Lehrkinds Big Spring

Report Date: 02/15/17

Project: MT0001229

Work Order: B17020463

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
<b>Method: E200.7</b>										Analytical Run: ICP203-B_170209A	
<b>Lab ID: ICV</b>	7	Continuing Calibration Verification Standard									02/09/17 11:16
Calcium		25.1	mg/L	1.0	100	95	105				
Iron		2.50	mg/L	0.020	100	95	105				
Magnesium		24.6	mg/L	1.0	98	95	105				
Potassium		25.0	mg/L	1.0	100	95	105				
Silicon		5.04	mg/L	0.10	101	95	105				
Sodium		25.1	mg/L	1.0	100	95	105				
Silica		10.8	mg/L	0.21	101	95	105				
<b>Method: E200.7</b>										Batch: R274619	
<b>Lab ID: MB-6500DIS170209A</b>	7	Method Blank							Run: ICP203-B_170209A		02/09/17 11:23
Calcium		ND	mg/L	0.01							
Iron		ND	mg/L	0.006							
Magnesium		ND	mg/L	0.01							
Potassium		ND	mg/L	0.08							
Silicon		ND	mg/L	0.02							
Sodium		ND	mg/L	0.03							
Silica		ND	mg/L	0.05							
<b>Lab ID: LFB-6500DIS170209A</b>	7	Laboratory Fortified Blank							Run: ICP203-B_170209A		02/09/17 11:30
Calcium		49.4	mg/L	1.0	99	85	115				
Iron		4.92	mg/L	0.020	98	85	115				
Magnesium		49.8	mg/L	1.0	100	85	115				
Potassium		48.8	mg/L	1.0	98	85	115				
Silicon		10.2	mg/L	0.10	102	85	115				
Sodium		48.8	mg/L	1.0	98	85	115				
Silica		21.7	mg/L	0.21	102	85	115				
<b>Lab ID: B17020432-002AMS2</b>	7	Sample Matrix Spike							Run: ICP203-B_170209A		02/09/17 13:02
Calcium		53.5	mg/L	1.0	101	70	130				
Iron		4.95	mg/L	0.020	99	70	130				
Magnesium		52.0	mg/L	1.0	102	70	130				
Potassium		49.9	mg/L	1.0	99	70	130				
Silicon		11.0	mg/L	0.10	104	70	130				
Sodium		50.7	mg/L	1.0	99	70	130				
Silica		23.5	mg/L	0.21	104	70	130				
<b>Lab ID: B17020432-002AMSD</b>	7	Sample Matrix Spike Duplicate							Run: ICP203-B_170209A		02/09/17 13:05
Calcium		52.8	mg/L	1.0	99	70	130	1.3	20		
Iron		4.89	mg/L	0.020	98	70	130	1.3	20		
Magnesium		51.3	mg/L	1.0	101	70	130	1.4	20		
Potassium		49.7	mg/L	1.0	99	70	130	0.4	20		
Silicon		11.0	mg/L	0.10	104	70	130	0.3	20		
Sodium		50.5	mg/L	1.0	99	70	130	0.4	20		
Silica		23.5	mg/L	0.21	104	70	130	0.3	20		

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# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Lehrkinds Big Spring

**Report Date:** 02/15/17

**Project:** MT0001229

**Work Order:** B17020463

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
<b>Method:</b> E200.8		Analytical Run: ICPMS202-B_170209A									
<b>Lab ID:</b> QCS	16	Initial Calibration Verification Standard							02/09/17 10:47		
Aluminum		0.248	mg/L	0.10	99	90	110				
Antimony		0.0540	mg/L	0.050	108	90	110				
Arsenic		0.0525	mg/L	0.0050	105	90	110				
Barium		0.0502	mg/L	0.10	100	90	110				
Beryllium		0.0254	mg/L	0.0010	102	90	110				
Cadmium		0.0265	mg/L	0.0010	106	90	110				
Chromium		0.0531	mg/L	0.010	106	90	110				
Copper		0.0517	mg/L	0.010	103	90	110				
Lead		0.0516	mg/L	0.010	103	90	110				
Manganese		0.259	mg/L	0.010	104	90	110				
Mercury		0.00200	mg/L	0.0010	100	90	110				
Nickel		0.0526	mg/L	0.010	105	90	110				
Selenium		0.0524	mg/L	0.0050	105	90	110				
Silver		0.0256	mg/L	0.0050	102	90	110				
Thallium		0.0510	mg/L	0.10	102	90	110				
Zinc		0.0541	mg/L	0.010	108	90	110				

<b>Method:</b> E200.8		Batch: R274586									
<b>Lab ID:</b> LRB	16	Method Blank							Run: ICPMS202-B_170209A		02/09/17 11:03
Aluminum		ND	mg/L	0.0003							
Antimony		ND	mg/L	0.00003							
Arsenic		ND	mg/L	0.00007							
Barium		ND	mg/L	0.00006							
Beryllium		ND	mg/L	9E-06							
Cadmium		ND	mg/L	9E-06							
Chromium		ND	mg/L	0.00006							
Copper		ND	mg/L	0.00008							
Lead		ND	mg/L	0.00002							
Manganese		ND	mg/L	0.00004							
Mercury		ND	mg/L	0.00001							
Nickel		ND	mg/L	0.00007							
Selenium		ND	mg/L	0.0002							
Silver		ND	mg/L	0.00003							
Thallium		ND	mg/L	0.00001							
Zinc		ND	mg/L	0.0002							

<b>Lab ID:</b> LFB	16	Laboratory Fortified Blank							Run: ICPMS202-B_170209A		02/09/17 11:05
Aluminum		0.0487	mg/L	0.10	97	85	115				
Antimony		0.0495	mg/L	0.050	99	85	115				
Arsenic		0.0499	mg/L	0.0050	100	85	115				
Barium		0.0508	mg/L	0.10	102	85	115				
Beryllium		0.0495	mg/L	0.0010	99	85	115				
Cadmium		0.0492	mg/L	0.0010	98	85	115				
Chromium		0.0498	mg/L	0.010	100	85	115				

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# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Lehrkinds Big Spring

**Report Date:** 02/15/17

**Project:** MT0001229

**Work Order:** B17020463

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E200.8</b> <span style="float: right;">Batch: R274586</span>										
<b>Lab ID:</b> LFB	16	Laboratory Fortified Blank					Run: ICPMS202-B_170209A		02/09/17 11:05	
Copper		0.0479	mg/L	0.010	96	85	115			
Lead		0.0507	mg/L	0.010	101	85	115			
Manganese		0.0503	mg/L	0.010	101	85	115			
Mercury		0.00103	mg/L	0.0010	103	85	115			
Nickel		0.0488	mg/L	0.010	98	85	115			
Selenium		0.0492	mg/L	0.0050	98	85	115			
Silver		0.0192	mg/L	0.0050	96	85	115			
Thallium		0.0508	mg/L	0.10	102	85	115			
Zinc		0.0475	mg/L	0.010	95	85	115			
<b>Lab ID:</b> B17020430-004BMS	16	Sample Matrix Spike					Run: ICPMS202-B_170209A		02/09/17 12:20	
Aluminum		0.0588	mg/L	0.030	96	70	130			
Antimony		0.0527	mg/L	0.0010	105	70	130			
Arsenic		0.0532	mg/L	0.0010	106	70	130			
Barium		0.102	mg/L	0.050	109	70	130			
Beryllium		0.0487	mg/L	0.0010	97	70	130			
Cadmium		0.0517	mg/L	0.0010	103	70	130			
Chromium		0.0533	mg/L	0.0050	106	70	130			
Copper		0.0519	mg/L	0.0050	99	70	130			
Lead		0.0520	mg/L	0.0010	104	70	130			
Manganese		0.178	mg/L	0.0010	107	70	130			
Mercury		0.00103	mg/L	0.00010	103	70	130			
Nickel		0.0507	mg/L	0.0050	101	70	130			
Selenium		0.0539	mg/L	0.0010	108	70	130			
Silver		0.0201	mg/L	0.0010	101	70	130			
Thallium		0.0531	mg/L	0.00050	106	70	130			
Zinc		0.119	mg/L	0.010	93	70	130			
<b>Lab ID:</b> B17020430-004BMSD	16	Sample Matrix Spike Duplicate					Run: ICPMS202-B_170209A		02/09/17 12:22	
Aluminum		0.0620	mg/L	0.030	103	70	130	5.4	20	
Antimony		0.0517	mg/L	0.0010	103	70	130	1.9	20	
Arsenic		0.0520	mg/L	0.0010	104	70	130	2.2	20	
Barium		0.0998	mg/L	0.050	104	70	130	2.6	20	
Beryllium		0.0490	mg/L	0.0010	98	70	130	0.7	20	
Cadmium		0.0502	mg/L	0.0010	100	70	130	3.0	20	
Chromium		0.0518	mg/L	0.0050	103	70	130	3.0	20	
Copper		0.0513	mg/L	0.0050	98	70	130	1.1	20	
Lead		0.0509	mg/L	0.0010	102	70	130	2.1	20	
Manganese		0.175	mg/L	0.0010	100	70	130	1.8	20	
Mercury		0.00102	mg/L	0.00010	102	70	130	1.5	20	
Nickel		0.0491	mg/L	0.0050	97	70	130	3.2	20	
Selenium		0.0526	mg/L	0.0010	105	70	130	2.5	20	
Silver		0.0198	mg/L	0.0010	99	70	130	1.6	20	
Thallium		0.0511	mg/L	0.00050	102	70	130	3.8	20	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Lehrkinds Big Spring

**Report Date:** 02/15/17

**Project:** MT0001229

**Work Order:** B17020463

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> E200.8										Batch: R274586
<b>Lab ID:</b> B17020430-004BMSD	16	Sample Matrix Spike Duplicate				Run: ICPMS202-B_170209A				02/09/17 12:22
Zinc		0.117	mg/L	0.010	89	70	130	1.7	20	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Lehrkinds Big Spring

**Report Date:** 02/15/17

**Project:** MT0001229

**Work Order:** B17020463

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E300.0</b>						Analytical Run: IC METROHM 1_170209A				
<b>Lab ID: ICV</b>	Initial Calibration Verification Standard									
Sulfate		9.10	mg/L	1.0	101	90	110			02/09/17 11:51
<b>Method: E300.0</b>						Batch: R274675				
<b>Lab ID: ICB</b>	Method Blank									
Sulfate		ND	mg/L	0.03						Run: IC METROHM 1_170209A 02/09/17 12:07
<b>Lab ID: LFB</b>	Laboratory Fortified Blank									
Sulfate		31.2	mg/L	1.0	104	90	110			Run: IC METROHM 1_170209A 02/09/17 12:23
<b>Lab ID: B17020463-001AMS</b>	Sample Matrix Spike									
Sulfate		246	mg/L	1.0	105	90	110			Run: IC METROHM 1_170209A 02/09/17 21:11
<b>Lab ID: B17020463-001AMSD</b>	Sample Matrix Spike Duplicate									
Sulfate		249	mg/L	1.0	107	90	110	1.1	20	Run: IC METROHM 1_170209A 02/09/17 21:28
<b>Method: E300.0</b>						Analytical Run: IC METROHM 1_170210A				
<b>Lab ID: ICV</b>	Initial Calibration Verification Standard									
Chloride		2.16	mg/L	1.0	96	90	110			02/10/17 10:58
<b>Method: E300.0</b>						Batch: R274731				
<b>Lab ID: ICB</b>	Method Blank									
Chloride		ND	mg/L	0.03						Run: IC METROHM 1_170210A 02/10/17 11:14
<b>Lab ID: LFB</b>	Laboratory Fortified Blank									
Chloride		10.2	mg/L	1.0	102	90	110			Run: IC METROHM 1_170210A 02/10/17 11:31
<b>Lab ID: B17020529-002BMS</b>	Sample Matrix Spike									
Chloride		82.6	mg/L	1.0	105	90	110			Run: IC METROHM 1_170210A 02/10/17 14:48
<b>Lab ID: B17020529-002BMSD</b>	Sample Matrix Spike Duplicate									
Chloride		82.0	mg/L	1.0	103	90	110	0.7	20	Run: IC METROHM 1_170210A 02/10/17 15:05

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Lehrkinds Big Spring

**Report Date:** 02/15/17

**Project:** MT0001229

**Work Order:** B17020463

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E353.2</b> Analytical Run: FIA203-B_170209A										
<b>Lab ID: ICV</b>	Initial Calibration Verification Standard									
Nitrogen, Nitrate+Nitrite as N		0.558	mg/L	0.010	99	90	110			02/09/17 09:59
<b>Method: E353.2</b> Batch: R274585										
<b>Lab ID: MBLK</b>	Method Blank									
Nitrogen, Nitrate+Nitrite as N		0.008	mg/L	0.006						Run: FIA203-B_170209A 02/09/17 10:00
<b>Lab ID: LFB</b>	Laboratory Fortified Blank									
Nitrogen, Nitrate+Nitrite as N		0.973	mg/L	0.010	96	90	110			Run: FIA203-B_170209A 02/09/17 10:02
<b>Lab ID: B17020425-001AMS</b>	Sample Matrix Spike									
Nitrogen, Nitrate+Nitrite as N		4.67	mg/L	0.010	103	90	110			Run: FIA203-B_170209A 02/09/17 10:22
<b>Lab ID: B17020425-001AMSD</b>	Sample Matrix Spike Duplicate									
Nitrogen, Nitrate+Nitrite as N		4.66	mg/L	0.010	102	90	110	0.2	10	Run: FIA203-B_170209A 02/09/17 10:23
<b>Lab ID: B17020491-001AMS</b>	Sample Matrix Spike									
Nitrogen, Nitrate+Nitrite as N		1.25	mg/L	0.010	96	90	110			Run: FIA203-B_170209A 02/09/17 10:39
<b>Lab ID: B17020491-001AMSD</b>	Sample Matrix Spike Duplicate									
Nitrogen, Nitrate+Nitrite as N		1.26	mg/L	0.010	97	90	110	0.8	10	Run: FIA203-B_170209A 02/09/17 10:40

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# Work Order Receipt Checklist

Lehrkinds Big Spring

B17020463

Login completed by: Gina McCartney

Date Received: 2/8/2017

Reviewed by: BL2000\tedwards

Received by: qej

Reviewed Date: 2/9/2017

Carrier name: Return-UPS Ground N/C

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

## 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.

## Contact and Corrective Action Comments:

Two of the three containers/coolers were received with custody seals on them.

The container temperature for Cooler 2 was 0.2°C with no ice and Cooler 3 was -0.8°C with no ice.

The Temperature Blank temperature for Cooler 1 was -1.6°C with Blue Ice.

All sample containers were received partially frozen.

Container for Odor analysis was not received. Per Wynn Pippin, Energy Laboratory Project Manager, container was broken during sampling and will be resampled at a later date.





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# Chain of Custody & Analytical Request Record

www.energylab.com

## Account Information (Billing Information)

Company/Name Lehighlands Big Spring Water  
 Contact Don Cates  
 Phone (406) 538-3433  
 Mailing Address 201 1st Ave No  
 City, State, Zip Levittown MT 59457  
 Email Randerson@Lehighlands.com  
 Receive Invoice  Hard Copy  Email   
 Purchase Order 7155 Quote 109632  
 Bottle Order

## Report Information (if different than Account Information)

Company/Name Lehighlands Inc  
 Contact Rose Sising  
 Phone (406) 586-2009  
 Mailing Address 1715 N. Route  
 City, State, Zip Bozeman MT 59719  
 Email r.sising@Lehighlands  
 Receive Report  Hard Copy  Email   
 Special Report/Formats:  
 LEVEL IV  NELAC  EDD/EDT (contact laboratory)  Other

## Project Information

Project Name, PWSID, Permit, etc. MT 0001229  
 Sampler Name Don Cates Sampler Phone 366-2161  
 Sample Origin State EPA/State Compliance  Yes  No  
 MINING CLIENTS, please indicate sample type.  
 Byproduct 11 (e)2 material  Unprocessed ore (NOT ground or refined)\*

## Matrix Codes

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

## Analysis Requested

Analysis Requested	Metals Total	Pesticides	Herbicides	VOI	VOI	VOI
Drinking Water	X	X	X	X	X	X
Drinking Water	X	X	X	X	X	X
Drinking Water	X	X	X	X	X	X
Drinking Water	X	X	X	X	X	X
Drinking Water	X	X	X	X	X	X
Drinking Water	X	X	X	X	X	X
Drinking Water	X	X	X	X	X	X
Drinking Water	X	X	X	X	X	X
Drinking Water	X	X	X	X	X	X
Drinking Water	X	X	X	X	X	X
Drinking Water	X	X	X	X	X	X

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

Number of Containers	Matrix (See Codes Above)	ELI LAB ID (Laboratory Use Only)
4	Drinking Water	separate
2	Drinking Water	work order
1	Drinking Water	B17020463001
1	Drinking Water	↓ -001
1	Drinking Water	↓ -001
1	Drinking Water	
1	Drinking Water	

## Custody

Relinquished by (print) Don Cates Date/Time 2-7-17 10:30AM  
 Relinquished by (print) \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Relinquished by (print) \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Relinquished by (print) \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Relinquished by (print) \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Relinquished by (print) \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Relinquished by (print) \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Relinquished by (print) \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Relinquished by (print) \_\_\_\_\_ Date/Time \_\_\_\_\_

## LABORATORY USE ONLY

Received by (print) Walter Jones Date/Time 2/17/17 09:15  
 Received by Laboratory (print) \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Received by Laboratory (print) \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Received by Laboratory (print) \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Received by Laboratory (print) \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Received by Laboratory (print) \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Received by Laboratory (print) \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Received by Laboratory (print) \_\_\_\_\_ Date/Time \_\_\_\_\_

## Shipped By

Cooler ID(s) \_\_\_\_\_ Custody Seals Y N C B Y N Intact Y N Receipt Temp °C \_\_\_\_\_  
 Temp Blank Y N On Ice Y N Payment Type CC 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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Billings, MT 800.735.4488 • Casper, WY 888.235.0515  
Gillette, WY 888.888.7175 • Helena, MT 877.472.0711

## BOTTLE ORDER 109632



### SHIPPED TO: Lehrkinds Big Spring

Contact: Don Cates  
201 1st Ave N

Order Created by: Wynn Pippin  
Shipped From: Billings, MT

Phone: Lewistown MT 59457

Ship Date: 1/31/2017  
VIA: Ground

Project:

Bottle Size/Type	Bottles Per Samp	Method	Tests	Critical Hold Time	Preservative	Notes	Num of Samp
<b>Source Water</b>							
1 Liter Plastic	1	A2540 C	Solids, Total Dissolved				1
		A2120 B	Color	48 hrs			
		A2130 B	Turbidity	48 hrs			
		A4500-H B	pH	0.24 hrs			
		E300.0	Anions by Ion Chromatography				
		A4500-F C	Fluoride				
		A2320 B	Alkalinity				
250 mL Plastic	1	E353.2	Nitrogen, Nitrate + Nitrite		<input type="checkbox"/> H2SO4		1
250 mL Plastic	1	E200.7_8	Metals by ICP/ICPMS, Drinking Water		<input checked="" type="checkbox"/> HNO3		1
1 Liter Amber Glass Narrow Mouth	2	A2150 B	Odor	24 hrs			1

Comments

Also send 4-gallons of Spring water, and 2 gallons of distilled water.

HNO3 - Nitric Acid    H2SO4 - Sulfuric Acid    NaOH - Sodium Hydroxide  
 ZnAc - Zinc Acetate    H3PO4 - Phosphoric Acid

**We strongly suggest that the samples are shipped the same day as they are collected.**

HCl - Hydrochloric  
Acid

**Material Safety Data Sheets(MSDS) Available @ [EnergyLab.com](mailto: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.