WATER RESOURCES MONITORING
2019 ANNUAL REPORT
BLACK BUTTE COPPER PROJECT

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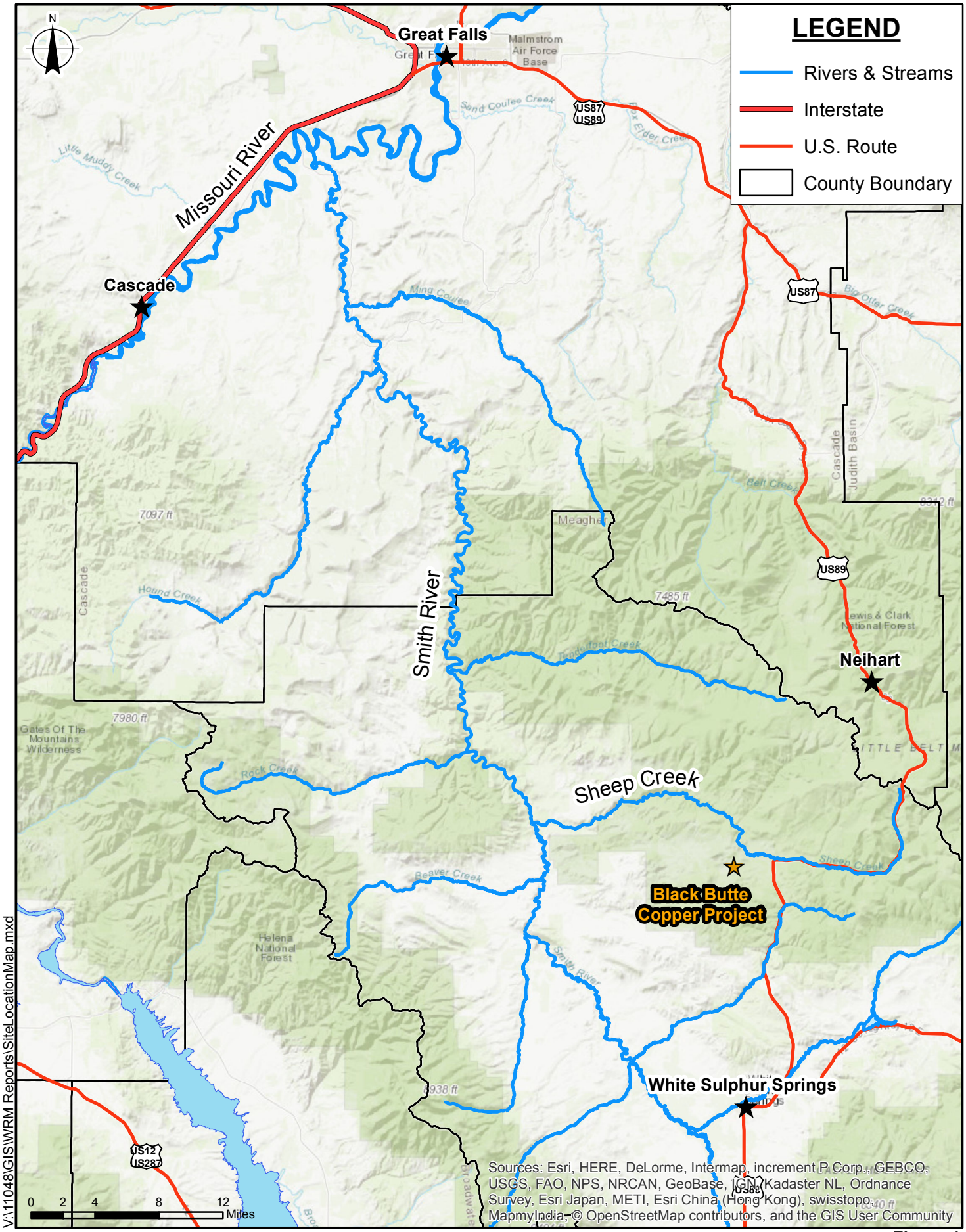
1.0 INTRODUCTION

Tintina Montana, Inc., a wholly owned subsidiary of Sandfire Resources America, Inc., contracted Hydrometrics, Inc. to conduct baseline water resources monitoring for the Black Butte Copper Project (Project) during 2019. The Project is located 17 miles north of White Sulphur Springs, in Meagher County, Montana (Figure 1). Baseline water resources monitoring and hydrologic investigations have been conducted at the Project since 2011 (Hydrometrics, 2015a). The monitoring and investigations are being conducted in support of permitting activities for the exploration and development of copper-bearing massive sulfide deposits within the lower Newland Formation.

Water resources monitoring for the Project consists of monthly, quarterly, and annual monitoring programs which are conducted in accordance with the 2016 Field Sampling and Analysis Plan (FSAP; Hydrometrics, 2016b). Additional water resources monitoring sites were added to the monthly monitoring program in the second quarter of 2019, including one surface water site (SW-19) near the headwaters of Black Butte Creek and five developed springs (DS-7, DS-8, DS-9, DS-10, and DS-11) as shown on Figure 2. The water resources monitoring programs are summarized below and the location, sampling schedule, and description of each water resources monitoring site is listed in Table 1.

1.1 MONTHLY MONITORING PROGRAM

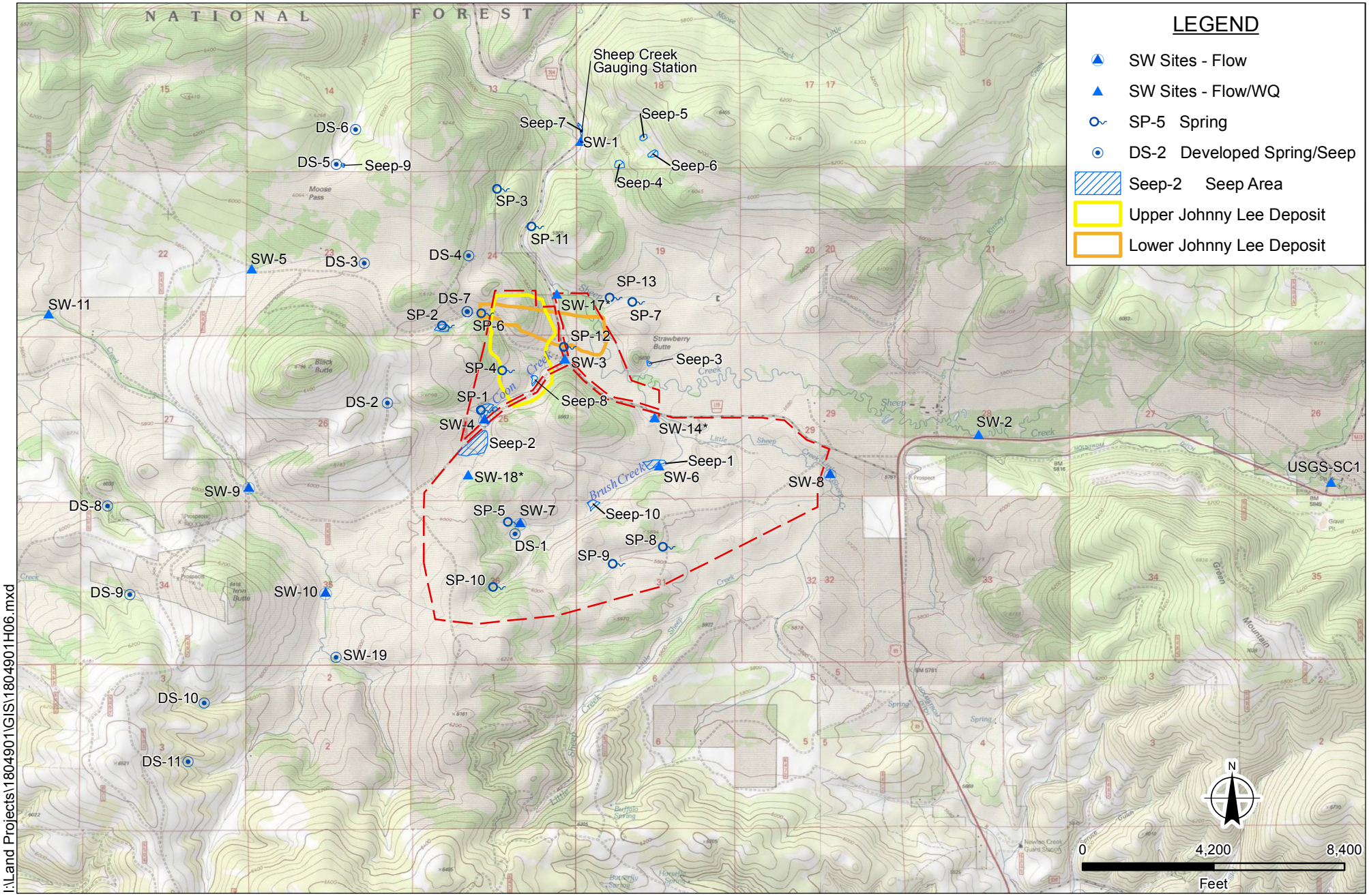
The monthly monitoring program includes monitoring at eight surface water sites, where flow, stage height (where staff gages are present), and field parameters are measured, and water quality samples are collected from seven sites; and monitoring at 17 spring sites (including nine developed springs), where flow and field parameters are measured at all sites and water quality samples are collected from 11 of the sites.



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Figure 1
Location Map
Black Butte Copper Project
Meagher County, Montana



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Figure 2
Surface Water, Spring & Seep Monitoring Sites
Black Butte Copper Project
Meagher County, Montana

TABLE 1. BASELINE MONITORING SITE DESCRIPTION AND SUMMARY

Monitoring Site	Easting (meters)	Northing (meters)	Monitoring Frequency	Flow or Water Level	Field Parameters	Lab Analysis	Location / Monitoring Well Construction
	WGS 1984 - UTM Zone 12 N						
Surface Water Sites							
SW-1	507148	5182710	M	X	X	X	Sheep Creek - Downgradient site; at bridge on County Road 119.
SW-2	511040	5179844	M	X	X	X	Sheep Creek - Upgradient site; Highway 89 right-of-way, approximately 0.6 miles east of county road intersection.
SW-3	506996	5180581	M	X	X	X	Unnamed tributary to Sheep Creek - at intersection of County Road 119 and USFS Road 64992.
SW-4	506308	5180114	Q	X	X	--	Unnamed tributary to Sheep Creek - approximately 0.6 miles southwest of County Road 119/USFS Road 6492 intersection.
SW-5	503914	5181465	Q	X	X	X	Unnamed tributary To Black Butte Creek - West of Moose Pass, where jeep trail crosses drainage.
SW-6	507919	5179536	Q	X	X	X	Unnamed tributary to Little Sheep Creek - approximately 0.25 miles south of County Road 119.
SW-8	509575	5179476	Q	X	X	--	Little Sheep Creek - Approximately 0.5 miles from Highway 89.
SW-9	503944	5179271	Q	X	X	--	Black Butte Creek - at USFS Road 6492 crossing.
SW-10	504665	5178322	Q	X	X	--	Butte Creek - approximately 0.7 miles upstream of SW-9.
SW-11	501951	5181021	Q	X	X	X	Black Butte Creek - Downgradient of confluence with Unnamed tributary to Butte Creek (west of Moose Pass).
SW-14	507876	5180008	M	X	X	X	Little Sheep Creek - Downstream of SW-8, approximately 1.0 miles from Highway 89.
SW-17	506919	5181218	M	X	X	X	Coon Creek - approximately 150 feet upstream of the confluence with Sheep Creek.
SW-18	507876	5180008	M	X	X	X	Coon Creek - head of drainage, upgradient of wetlands, south of USFS Road 6492.
SW-19	504745	5177675	M	X	X	--	Black Butte Creek - upstream of SW-10 in the SWSWSE Section 35 T12N R06E.
USGS-SC1	514509	5179419	M	X	X	X	Approximately 2.4 miles upstream of SW-2 on Sheep Creek.

TABLE 1. BASELINE MONITORING SITE DESCRIPTION AND SUMMARY (CONTINUED)

Monitoring Site	Easting (meters)	Northing (meters)	Monitoring Frequency	Flow or Water Level	Field Parameters	Lab Analysis	Location / Monitoring Well Construction
	WGS 1984 - UTM Zone 12 N						
Springs							
SP-1	506283.07	5180101.39	A	X	X	--	Spring/Seep on west bank of Coon Creek approximately 150 feet downgradient of surface water site SW-4.
SP-2	505833.97	5180907.34	A	X	X	--	Spring in small unnamed tributary drainage to lower Coon Creek in SESW Section 24 T12N R06E.
SP-3	506370.58	5182241.55	M	X	X	X	Spring in small unnamed tributary to Sheep Creek in NWNE Section 24 T12N R06E.
SP-4	506425.17	5180468.94	M	X	X	X	Spring at head of unnamed tributary to Coon Creek, in E2NE Section 25 T12N R06E.
SP-5	506478.82	5178985.42	M	X	X	X	Spring in upper Brush Creek drainage (formerly known as surface water SW-7 location).
SP-6	506219.58	5181027.89	M	X	X	X	Unnamed tributary drainage near mine site, located in SESW Section 24 T12N R06E.
SP-7	507693.69	5181137.92	M	X	X	X	North side of Strawberry Butte above tributary drainage to Sheep Creek.
SP-8	507995.89	5178745.24	A	X	X	--	North of unnamed tributary to Little Sheep Creek, approximately 0.75 miles south of USFS Road 6492 in SENW Section 31 T12N R07E.
SP-9	507502.03	5178577.92	A	X	X	--	North of unnamed tributary to Little Sheep Creek, approximately 0.3 miles west-southwest of SP-8 in SWNW Section 31 T12N R07E.
SP-10	506335.42	5178351.00	M	X	X	X	Headwaters of the southfork of Brush Creek, south of proposed portal, near the center of Section 36 T12N R06E.
SP-11	506708	5181875	M	X	X	X	Hill slope east of Sheep Creek, in the SWNE Section 24 T12N R06E.
SP-12	507098	5180685	M	X	X	X	Hay meadow area approximately 560 feet north of County Road 116 and USFS Road 6492 intersection.
SP-13	507567	5181875	A	X	X	--	Unnamed tributary drainage of Sheep Creek, located approximately 730 feet west of SP-7 in the SESW Section 19 T12N R07E.

TABLE 1. BASELINE MONITORING SITE DESCRIPTION AND SUMMARY (CONTINUED)

Monitoring Site	Easting (meters)	Northing (meters)	Monitoring Frequency	Flow or Water Level	Field Parameters	Lab Analysis	Location / Monitoring Well Construction
	WGS 1984 - UTM Zone 12 N						
Developed Springs							
DS-1	506507.08	5178870.81	M	X	X	X	Developed spring, near surface water site SW-7 in upper drainage of Little Sheep Creek trib.
DS-2	505263.49	5180150.61	M	X	X	--	Developed seep/spring, southeast side of Black Butte upgradient of SP-1.
DS-3	505037.62	5181520.61	M	X	X	X	South of Moose Pass in Butte Creek drainage (upgradient of surface water site SW-5).
DS-4	506056.53	5181588.64	M	X	X	X	Unnamed tributary to Sheep Creek in Section 24 T12N R06E, north of mine area and southeast of Moose Pass.
DS-5	504761.45	5182484.96	A	X	X	--	Unnamed tributary to Sheep Creek, north of Moose Pass.
DS-6	504949.66	5182827.88	A	X	X	--	Unnamed tributary to Sheep Creek, north of Moose Pass and downstream of DS-5.
DS-7	506035.65	5181047.77	M	X	X	--	Developed spring in unnamed tributary of Coon Creek, located in SESW Section 24 T12N R06E.
DS-8	502530.17	5179153.21	M	X	X	--	Developed spring in unnamed tributary of Copper Creek, located in NWNW Section 34 T12N R06E.
DS-9	502734.06	5178282.03	M	X	X	--	Developed spring in unnamed tributary of Copper Creek, located in NESW Section 34 T12N R06E.
DS-10	503469.32	5177225.48	M	X	X	--	Developed spring in unnamed tributary of Black Butte Creek, in center of NE Sec. 03 T11N R06E.
DS-11	503314.85	5176650.87	M	X	X	--	Developed spring in unnamed tributary of Black Butte Creek, located in NWSE Sec. 03 T11N R06E.

TABLE 1. BASELINE MONITORING SITE DESCRIPTION AND SUMMARY (CONTINUED)

Monitoring Site	Easting (meters)	Northing (meters)	Monitoring Frequency	Flow or Water Level	Field Parameters	Lab Analysis	Location / Monitoring Well Construction
	WGS 1984 - UTM Zone 12 N						
Seeps							
Seep-1	507876.19	5179570.54	A	--	X	--	Seep on tributary to Little Sheep Creek (approximately 15' west of SW-6).
Seep-2	506310.6	5180089.2	A	--	X	--	Seep on east bank of Coon Creek (approximately 150 feet downgradient of SW-4).
Seep-3	507821.16	5180537.25	A	--	X	--	Seep located on eastern side of Strawberry Butte.
Seep-4	507530.57	5182486.29	A	--	X	--	Seep on hillside in SWSW Section 18 T12N R07E.
Seep-5	507768.38	5182748.77	A	--	X	--	Seep on hillside in SESW Section 18 T12N R07E.
Seep-6	507853.49	5182587.27	A	--	X	--	Seep on hillside in SESW Section 18 T12N R07E.
Seep-7	507155.4	5182821.06	A	--	X	--	Seep on eastern side of County Road 119 approximately 200 feet north of Sheep Creek bridge at SW-1.
Seep-8	506701.44	5180381.64	A	--	X	--	Seep area on west hillside adjacent to lower Coon Creek.
Seep-9	504825.48	5182475.68	A	--	X	--	Seep in unnamed tributary to Sheep Creek North of Moose Pass (downgradient of DS-5).
Seep-10	507270.05	5179164.8	A	--	X	--	Spring in upper Brush Creek, upstream of Seep 1, in NWNW Section 31 T12N R07E.

TABLE 1. BASELINE MONITORING SITE DESCRIPTION AND SUMMARY (CONTINUED)

Monitoring Site	Easting (meters)	Northing (meters)	Monitoring Frequency	Flow or Water Level	Field Parameters	Lab Analysis	Location / Monitoring Well Construction		
	WGS 1984 - UTM Zone 12 N								
Monitoring Wells							Total Depth	Perforated / Screen Interval	Gravel / Sand Pack Interval
							feet, below ground surface		
MW-1A	506935.22	5180841.55	Q	X	X	X	38	25 - 34	25 - 34
MW-1B	506934.19	5180845.46	Q	X	X	X	98	88 - 98	88 - 98
MW-2A	506598.18	5180331.93	Q	X	X	X	62	52 - 62	47 - 62
MW-2B	506596.96	5180328.73	Q	X	X	X	80	70 - 80	65 - 80
MW-3	506484.07	5180740.22	Q	X	X	X	305	285 - 305	278 - 305
MW-4A	507201.47	5180855.43	Q	X	X	X	23	14-23	11 - 23
MW-4B	507200.12	5180858.49	Q	X	X	X	59	39-59	37-59
MW-6A	507809.18	5179492.85	Q	X	X	X	15	5-15	3-15
MW-6B	507792.76	5179490.71	Q	X	X	X	50	40-50	37-50
MW-7	507451.70	5179500.71	Q	X	X	X	50	40-50	37-50
MW-8	507036.00	5179398.31	Q	X	X	X	80	70-80	67-80
MW-9	506592.96	5180725.46	Q	X	X	X	143	108-128	98-144
MW-10	506578.57	5179215.05	Q	X	X	X	90	70-90	67-90
MW-11	506464.72	5179117.47	Q	X	X	X	70	50-70	46-70
MW-12	506412.82	5179010.38	Q	X	X	X	61	40-61	37-61
MW-13	506477.79	5178855.81	Q	X	X	X	40	20-40	17-40
MW-14	508255.63	5179376.77	Q	X	--	--	68	56-66	53-68
MW-15	508290.89	5179071.07	Q	X	--	--	80	70-80	66-80
MW-16	507036.30	5180586.21	Q	X	X	X	57	37-57	34-57
MW-17	506654.57	5180130.74	Q	X	X	X	75	55-75	54-78
MW-18	506257.38	5179707.93	Q	X	X	X	32	12-32	10-32
MW-19	506878.42	5178925.74	Q	X	X	X	28	8-28	6-28
MW-20	507426.69	5179631.58	Q	X	X	X	37.5	17.5-37.5	14.5-37.5
SC12-116	507030.00	5180380.00	Q	X	--	--	--	--	--
SC15-184	507047.34	5178972.53	Q	--	X	X	99	55-85	49-90
SC15-185	506355.46	5179094.24	Q	X	X	X	99	60-80	56.3-85
SC15-194	506014.14	5179854.92	Q	X	X	X	99	60-80	56.3-85
SC15-198	506621.36	5179854.92	Q	X	X	X	99	60-70	51.7-74

TABLE 1. BASELINE MONITORING SITE DESCRIPTION AND SUMMARY (CONTINUED)

Monitoring Site	Easting (meters)	Northing (meters)	Monitoring Frequency	Flow or Water Level	Field Parameters	Lab Analysis	Location / Monitoring Well Construction		
	WGS 1984 - UTM Zone 12 N								
Test Wells							Total Depth	Perforated / Screen Interval	Gravel / Sand Pack Interval
							feet, below ground surface		
PW-1	506301.42	5180698.40	Q	X	--	--	213	171-211	108-213
PW-2	506443.15	5180865.03	Q	X	X	X	215	132-212	121-215
PW-3	506846.43	5180479.42	Q	X	X	X	131	90-127	80-131
PW-4	506849.44	5180701.75	Q	X	X	X	242	200-239	191-242
PW-5	506490.68	5181172.77	Q	X	--	--	565	515-555	508-560
PW-6N	506477.44	5181085.67	Q	X	--	--	1358	Open Hole	1159-1358
PW-7	507122.89	5180867.59	Q	--	X	X	1350	1306-1350	1300-1350
PW-8	506846.19	5180695.53	Q	X	X	X	184	139-179	132-179
PW-9	506598.38	5180721.88	Q	X	X	X	256	216-256	208-256
PW-10	506593.55	5180721.88	Q	X	X	X	370	319-359	310-370
Piezometers									
PZ-01	507650.01	5180255.63	Q	X	--	--	5.3	2.3-5.3	--
PZ-02	507400.72	5180778.79	Q	X	--	--	5.3	2.3-5.3	--
PZ-03	507249.21	5180618.91	Q	X	--	--	9.3	6.3-9.3	--
PZ-04	506991.74	5181110.82	Q	X	--	--	7.7	4.7-7.7	--
PZ-05	507080.04	5181214.68	Q	X	--	--	5.4	2.4-5.4	--
PZ-07A	506258.39	5180074.65	Q	X	--	--	6	3-6	--
PZ-07B	506258.47	5180075.00	Q	X	--	--	11	8-11	--
PZ-08	507090.31	5180573.81	Q	X	--	--	12	7-12	5-12
PZ-09	507883.78	5180178.58	Q	X	--	--	10	5-10	3-10
PZ-10	506590.91	5180679.01	Q	X	--	--	11	9-11	--
PZ-11R	507031.15	5180654.89	Q	X	--	--	11	9-11	--
PZ-12	506839.49	5180509.42	Q	X	--	--	7	5-7	--
PZ-13	507793.88	5180289.38	Q	X	--	--	7.5	5-7.5	--
PZ-14	507492.91	5180412.13	Q	X	--	--	5.5	3-5.5	--
PZ-15	507193.65	5180762.85	Q	X	--	--	8.5	6-8.5	--
GEOT18-7[1]	507102.65	5179929.68	Q	X	--	--	150.27	128.85	--
GEOT18-8[1]	507046.59	5180075.41	Q	X	--	--	150.27	104.24	--
								127.4	--
GEOT18-9[1]	506935.99	5180371.58	Q	X	--	--	150.38	64.77	--
								124.2	--

Notes: 1. Collar coordinates

M: Monthly; Q: Quarterly; and A: Annual monitoring program frequency

Surface water, springs, and seep monitoring sites are shown on Figure 2; groundwater monitoring sites are shown on Figure 3.

1.2 QUARTERLY MONITORING PROGRAM

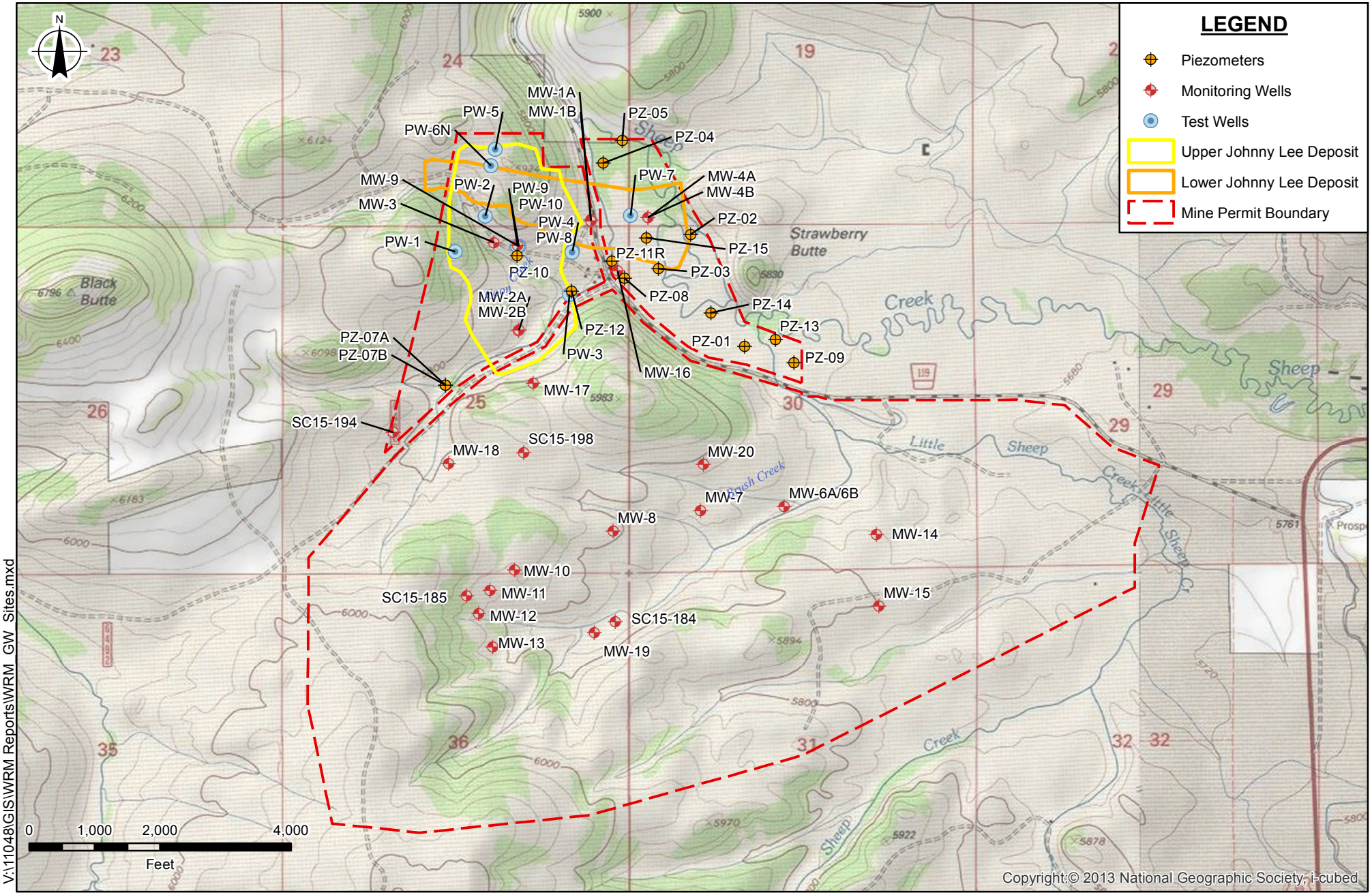
The quarterly monitoring program includes monitoring at seven surface water sites, where flow and stage height (where staff gages are present) and field parameters are measured at all sites and water quality samples are collected from three of the sites; and monitoring at 25 monitoring wells, 10 test wells, and 15 piezometers, where the static water level (SWL) is measured at all sites and field parameters are measured and water quality samples are collected from 32 of the wells. Supplemental water level monitoring is conducted at core hole SC12-116 and from five vibrating wire piezometers (VWP) in core holes SC19-246 (GEOT18-7; 1 VWP), SC19-248 (GEOT18-8; 2 VWPs), and SC19-249 (GEOT18-9; 2 VWPs), as shown on Table 1.

1.3 ANNUAL MONITORING PROGRAM

The annual monitoring program includes monitoring at seven spring sites (including two developed springs), where flow and field parameters are measured; and monitoring at 10 seep sites, where field parameters are measured.

The location, sampling schedule, and description of each water resources monitoring site are summarized in Table 1. The locations of the surface water, spring, and seep monitoring sites are shown on Figure 2 and the groundwater monitoring sites are shown on Figure 3. This report summarizes the results of the water resource monitoring programs conducted during 2019, including:

- Monthly monitoring in January, February, March, April, May, June, July, August, September, October, November, and December;
- Quarterly monitoring in March, June, September, and November; and
- Annual monitoring in September.



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Figure 3
Groundwater Monitoring Sites
Black Butte Copper Project
Meagher County, Montana

Water quality samples were submitted to Energy Laboratories in Helena, Montana for analysis of physical parameters, common ions, nutrients, and a comprehensive suite of trace constituents. The water quality parameters, analytical methods, and detection limits are listed in Tables 2 and 3 for surface water and groundwater, respectively. Samples collected from springs were submitted for analysis as groundwater according to Table 3. For surface water quality samples, trace metals (with the exception of aluminum) were analyzed for the total recoverable concentration; aluminum was analyzed for the dissolved fraction. For groundwater quality samples, all trace metals were analyzed for the dissolved fraction.

TABLE 2. PARAMETERS, METHODS, AND DETECTION LIMITS FOR SURFACE WATER MONITORING

Parameter	Analytical Method[(1)]	Project-Required Detection Limit (mg/L)
Physical Parameters		
TDS	SM 2540C	4
TSS	SM 2540C	4
Common Ions		
Alkalinity	SM 2320B	4
Sulfate	300.0	1
Chloride	300.0/SM 4500CL-B	1
Fluoride	A4500-F C	0.1
Calcium	215.1/200.7	1
Magnesium	242.1/200.7	1
Sodium	273.1/200.7	1
Potassium	258.1/200.7	1
Nutrients		
Nitrate+Nitrite as N	353.2	0.003
Total Persulfate Nitrogen	A 4500-N-C	0.04
Total Phosphorus	E365.1	0.003
Trace Constituents (Total Recoverable except Aluminum [Diss])[(2)]		
Aluminum (Al)	200.7/200.8	0.009
Antimony (Sb)	200.7/200.8	0.0005
Arsenic (As)	200.8/SM 3114B	0.001
Barium (Ba)	200.7/200.8	0.003
Beryllium (Be)	200.7/200.8	0.0008
Cadmium (Cd)	200.7/200.8	0.00003
Chromium (Cr)	200.7/200.8	0.01
Cobalt (Co)	200.7/200.8	0.01
Copper (Cu)	200.7/200.8	0.002
Iron (Fe)	200.7/200.8	0.02
Lead (Pb)	200.7/200.8	0.0003
Manganese (Mn)	200.7/200.8	0.005
Mercury (Hg)	245.2/245.1/200.8/SM 3112B	0.000005
Molybdenum (Mo)	200.7/200.8	0.002
Nickel (Ni)	200.7/200.8	0.001
Selenium (Se)	200.7/200.8/SM 3114B	0.0002
Silver (Ag)	200.7/200.8	0.0002
Strontium (Sr)	200.7/200.8	0.0002
Thallium (Tl)	200.7/200.8	0.0002
Uranium (U)	200.7/200.8	0.008
Zinc (Zn)	200.7/200.8	0.002
Field Parameters		
Stream Flow	HF-SOP-37/-44/-46	NA
Water Temperature	HF-SOP-20	0.1 °C
Dissolved Oxygen (DO)	HF-SOP-22	0.1 mg/L
pH	HF-SOP-20	0.1 s.u.
Specific Conductance (SC)	HF-SOP-79	1 µmhos/cm

Notes:

(1) Analytical methods are from *Standard Methods for the Examination of Water and Wastewa*ter (SM) or EPA's *Methods for Chemical Analysis of Water and Wastes* (1983).

(2) Samples to be analyzed for dissolved constituents will be field-filtered through a 0.45 µm filter.

TABLE 3. PARAMETERS, METHODS, AND DETECTION LIMITS FOR GROUNDWATER MONITORING

Parameter	Analytical Method[(1)]	Project-Required Detection Limit (mg/L)
Physical Parameters		
TDS	SM 2540C	10
TSS	SM 2540C	10
Common Ions		
Alkalinity	SM 2320B	4
Sulfate	300.0	1
Chloride	300.0/SM 4500CL-B	1
Fluoride	A4500-F C	0.1
Calcium	215.1/200.7	1
Magnesium	242.1/200.7	1
Sodium	273.1/200.7	1
Potassium	258.1/200.7	1
Nutrients		
Nitrate+Nitrite as N	353.2	0.01
Trace Constituents (Dissolved)[(2)]		
Aluminum (Al)	200.7/200.8	0.009
Antimony (Sb)	200.7/200.8	0.0005
Arsenic (As)	200.8/SM 3114B	0.001
Barium (Ba)	200.7/200.8	0.003
Beryllium (Be)	200.7/200.8	0.0008
Cadmium (Cd)	200.7/200.8	0.00003
Chromium (Cr)	200.7/200.8	0.01
Cobalt (Co)	200.7/200.8	0.01
Copper (Cu)	200.7/200.8	0.002
Iron (Fe)	200.7/200.8	0.02
Lead (Pb)	200.7/200.8	0.0003
Manganese (Mn)	200.7/200.8	0.005
Mercury (Hg)	245.2/245.1/200.8/SM 3112B	0.000005
Molybdenum (Mo)	200.7/200.8	0.002
Nickel (Ni)	200.7/200.8	0.001
Selenium (Se)	200.7/200.8/SM 3114B	0.0002
Silver (Ag)	200.7/200.8	0.0002
Strontium (Sr)	200.7/200.8	0.0002
Thallium (Tl)	200.7/200.8	0.0002
Uranium (U)	200.7/200.8	0.008
Zinc (Zn)	200.7/200.8	0.002
Field Parameters		
Water Level	HF-SOP-10	0.01 ft
Water Temperature	HF-SOP-20	0.1 °C
Dissolved Oxygen (DO)	HF-SOP-22	0.1 mg/L
pH	HF-SOP-20	0.1 s.u.
Specific Conductance (SC)	HF-SOP-79	1 µmhos/cm

Notes:

(1) Analytical methods are from *Standard Methods for the Examination of Water and Wastewa*ter (SM) or EPA's *Methods for Chemical Analysis of Water and Wastes* (1983).

(2) Samples to be analyzed for dissolved constituents will be field-filtered through a 0.45 µm filter.

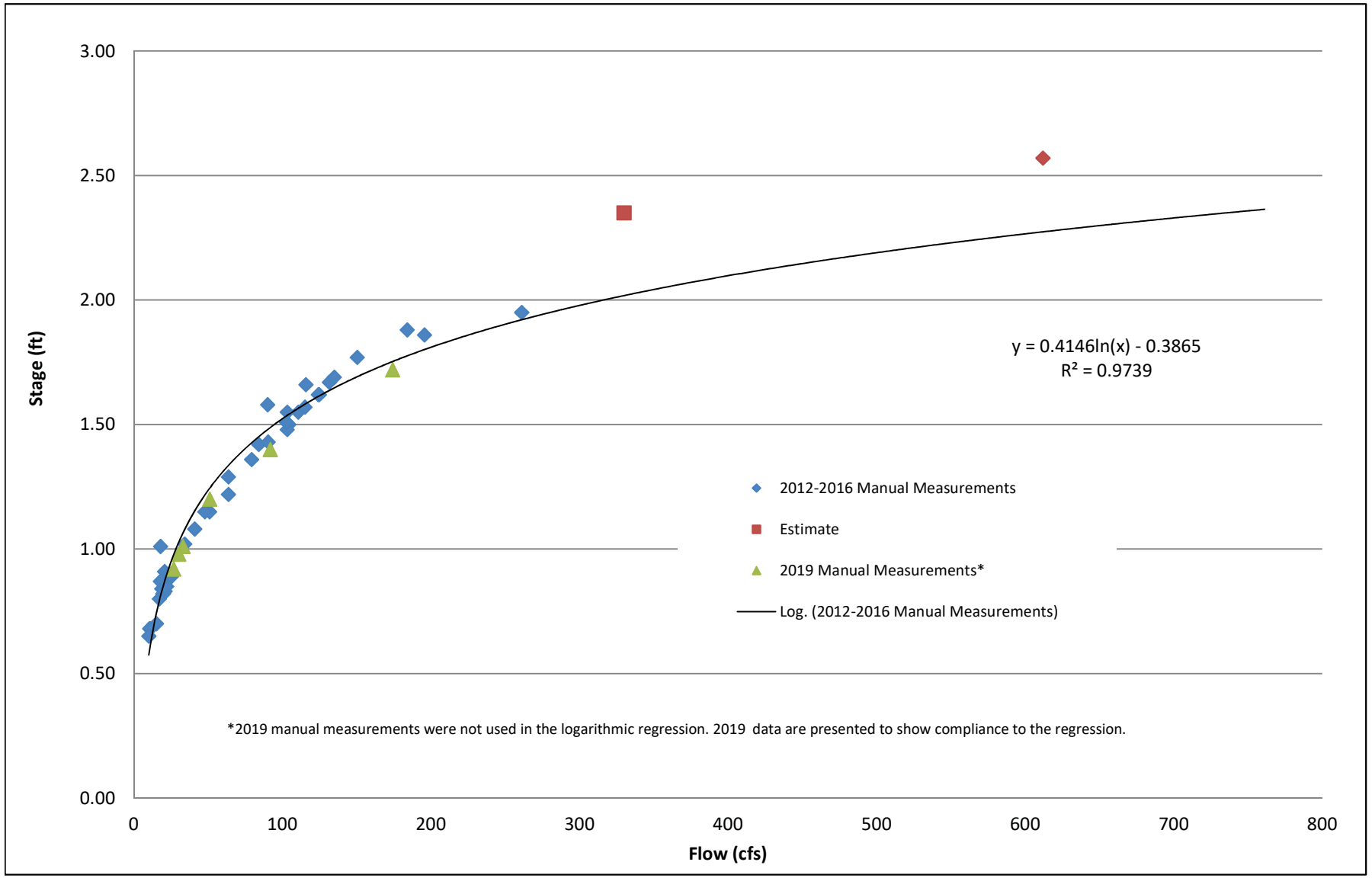
2.0 WATER RESOURCES MONITORING

2.1 SURFACE WATER

The Project lies within the Sheep Creek drainage, a tributary of the Smith River, within the Missouri River Basin. The headwaters of Sheep Creek are located in the Little Belt Mountains at an elevation of approximately 7,600 feet. Sheep Creek discharges into to the Smith River approximately 34 river miles west of its headwaters, at an elevation of approximately 4,380 feet. The project site is approximately 18 river miles upstream of the confluence with the Smith River. Sheep Creek flows in a meandering channel through a broad alluvial valley upstream of the project site and enters a constricted bedrock canyon just downstream of the site.

Primary tributaries to Sheep Creek in the immediate project area are Little Sheep Creek and Coon Creek (Figure 2). There are also two spring-fed unnamed tributaries in the project area: 1) the tributary locally known as Brush Creek discharges to Little Sheep Creek prior to its confluence with Sheep Creek; and 2) the unnamed spring creek in the vicinity of SP-7 and SP-13 shown on Figure 2. Black Butte Creek is another tributary to Sheep Creek with its headwaters south-southwest of the project site. Black Butte Creek discharges into Sheep Creek approximately seven miles downstream of the site.

A gaging station was established at SW-1 in November 2012 to collect continuous stage data on Sheep Creek, downstream of the project area. The station consists of a stilling well with a pressure transducer to monitor stream stage; data in 2019 were collected on 4-hour intervals. Manual flow measurements and stage measurements were collected from May 2012 to November 2016 to develop a stream rating curve, including frequent measurements (approximately every two weeks) during spring runoff conditions from 2013 to 2016 (Figure 4). A logarithmic regression line was fitted to the data to establish a regression equation, or rating curve, relating stream stage to discharge. The rating curve is: Stage=0.4146*Ln(Flow)-0.3865. The stream rating curve provides a strong fit of the data, with a high coefficient of determination (R^2=0.974).



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Figure 4
SW-1 Gaging Station Rating Curve
Black Butte Copper Project
Meagher County, Montana

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A gaging station, consisting of a staff gage, stilling tube, and transducer, was installed on Little Sheep Creek at SW-14 in 2016. Data at this site are also collected on 4-hour intervals. A rating curve is yet to be established for SW-14, due to insufficient amount of data throughout the range of flow and stage and effects on flow during the irrigation season.

Surface water monitoring was conducted in accordance with methodologies described in the FSAP, which consist of the following steps:

1. Collection of field parameters;
2. Water quality sample collection; and
3. Measurement of stream flow and stage.

The monthly surface water monitoring was conducted in accordance with the schedule described in Section 1.0 and is summarized below. Site SW-19 was added to the monthly monitoring program (flow and field parameters only) in April 2019 to establish baseline conditions in the upper reach of Black Butte Creek. Site SW-4 was added to the monthly monitoring program starting in July with the collection of flow, parameters, and water quality samples; SW-4 was previously part of the quarterly monitoring program where flow and water quality parameters well measured.

The number of sites that parameters, samples, and/or measurements were collected each month in 2019 is summarized in Table 4. As shown in Table 4, flow measurements were not conducted during winter months due to ice prohibiting accurate measurements. Similarly, during fall and winter months, several sites were dry or completely frozen which precluded the collection of field parameters, water quality samples, and flow measurements. Therefore, unless otherwise stated, the variability in amount of data collected during monitoring events is due to site conditions.

TABLE 4. SUMMARY OF SURFACE WATER MONITORING DATA COLLECTION

	Number of Locations Monitored			
2019 Quarter	**Month**	**Field Parameters**	**Water Quality Samples**	**Flow Measurements**
First	January	5	5	0
	February	4	4	0
	March	10	8	2
Second	April	7	7	4
	May	6	6	5
	June	13	8	13
Third	July	6	6	6
	August	6	6	6
	September	12	8	12
Fourth	October	9	9	9
	November	8	8	8
	December	4	4	1

A review of water quality and description of apparent trends of hydrographs for these sites are provided in Section 3.1 of this report.

2.2 SPRINGS AND SEEPS

Spring and seep inventories were performed in July 2011, October 2011, and July 2012 to document and inventory existing springs and seeps within a one-mile radius of the formerly proposed exploration decline (Hydrometrics, 2012). These inventories identified ten undeveloped springs, six developed springs (for stock water) and ten seep sites (Figure 2) within the inventory area. A description of each site and locations are listed in Table 1. The sites identified as seeps are locations where there is diffuse seepage over a broad area with flow rates too low to measure at the point of discharge. The springs, in contrast, originate in a discrete area and discharge into channels at measurable flow rates. The majority of the identified sites consist of small springs or seeps located in ephemeral channels in the

headwaters of small unnamed tributaries. These springs form small boggy areas with limited flow and generally re-infiltrate within a few hundred feet downstream. A number of these springs have been developed for stock watering (indicated by a DS designation) and flow is diverted to small stock tanks. Relatively large spring and seep areas were identified along the lower reaches of Coon Creek and on unnamed tributaries to Sheep Creek and support perennial flow to lower reaches of these streams.

The spring and seep monitoring was conducted in accordance with methodologies described in the FSAP, which consist of the following steps:

- Collection of field parameters;
- Water quality sample collection; and
- Collection of flow measurements (where feasible).

The number of sites that parameters, samples, and/or measurements were collected from springs during each month in 2019 is summarized in Table 5. As shown in Table 5, flow measurements at most sites were not conducted during winter months due to dry or frozen conditions. Similarly, during these periods, field parameters and water quality were also not collected due to these conditions. Therefore, unless otherwise stated, the variability in amount of data collected during monitoring events is due to site conditions.

A review of 2019 water quality and description of apparent trends of hydrographs for spring and seep sites are provided in Section 3.2 of this report.

TABLE 5. SUMMARY OF SPRING AND SEEP MONITORING DATA COLLECTION

2019 Quarter	Number of Locations Monitored			
	Month	Field Parameters	Water Quality Samples	Flow Measurements
First	January	4	4	2
	February	4	4	1
	March	17	15	8
Second	April	15	10	10
	May	16	10	14
	June	17	11	14
Third	July	17	11	14
	August	16	10	14
	September	27[1]	10	17
Fourth	October	16	10	13
	November	12	7	11
	December	10	4	9

Note:

1. Includes six seeps monitored as part of the annual program.

2.3 GROUNDWATER

The project area is underlain by dolomitic and silicic shales of the Newland Formation. A thin veneer of colluvium overlies bedrock in most upland areas, whereas, in the flanks of the major drainages, bedrock is overlain by thicker tertiary deposits. Quaternary alluvial deposits are present beneath and adjacent to the stream channels and along the axes of the major drainages.

Monitoring wells and test wells have been completed within the shallow and deep stratigraphic units in the vicinity of the proposed mine workings and facilities to characterize aquifer properties, monitor baseline water levels and groundwater quality, and evaluate hydraulic gradient and groundwater flow direction within the project area. The well locations are shown on Figure 3 and well completion data are summarized in Table 1. A series of paired monitoring wells (MW-1A, MW-1B, MW-2A, MW-2B, MW-4A, MW-4B,

MW-6A, and MW-6B) were installed between 2011 and 2013 to document and compare baseline conditions between the shallow weathered bedrock and unconsolidated colluvium and the underlying shallow bedrock groundwater systems (Hydrometrics, 2015b). Monitoring well MW-3 was completed in November 2011 near the terminus of the proposed exploration decline. Monitoring wells MW-6A, MW-6B, MW-7, and MW-8 were installed to document baseline water quality in the vicinity of the proposed central underground infiltration galleries (Hydrometrics, 2013). MW-6A is completed in shallow alluvial gravel, and MW-6B, MW-7, and MW-8 are completed in shallow dolomitic shale bedrock of the Lower Newland Formation. In 2014, MW-9 was installed above the upper sulfide zone (USZ) as a monitoring point to assess the effects of mine dewatering during development (Hydrometrics, 2015b). Four monitoring wells (MW-10, MW-11, MW-12, and MW-13) were installed in March 2016 to evaluate the shallow groundwater systems in the vicinity of the proposed Cemented Tailings Facility (CTF) (Hydrometrics, 2016a). Monitoring wells MW-10, MW-11, and MW-12 are completed in granodiorite; whereas well MW-13 is completed in interbedded shale and limestone. Monitoring wells MW-14 and MW-15 were installed in dolomitic shale beneath the proposed eastern underground infiltration gallery in September 2016 (Hydrometrics, 2017). Additionally, compliance monitoring wells MW-16, MW-17, MW-18, MW-19, and MW-20 were installed in 2018 to establish baseline groundwater monitoring in the areas adjacent to proposed water-bearing/waste surface facilities (Hydrometrics, 2018).

In addition to the monitoring wells, ten test wells have been installed to provide information on the hydrologic characteristics of the geologic units within and adjacent to the proposed mine (Figure 3) (Hydrometrics, 2015a). Two test wells (PW-1 and PW-2) were installed in November 2011 and two test wells (PW-3 and PW-4) were installed in March 2012 to evaluate hydrologic characteristics near the proposed and alternative locations for the mine access decline. Test wells PW-5, PW-6, and PW-7 were installed in 2013 to evaluate hydrologic characteristics of the Volcano Valley Fault (PW-5), Buttress Fault (PW-6), and Lower Copper Zone (LCZ) (PW-7). Three additional test wells were installed in 2014 to evaluate the hydrostratigraphic units overlying (PW-8), within (PW-9), and underlying (PW-10) the Upper Copper Zone (UCZ). In 2015, the screen interval of well PW-6 was

abandoned and the well was further advanced and completed as an open borehole in the Neihart Formation; the new completion has been named PW-6N. The completion details for each test well are summarized in Table 1.

Twelve piezometers are used to monitor the groundwater levels in the shallow alluvium and colluvium deposits adjacent to Sheep Creek and in the Coon Creek drainage basin. Piezometers PZ-1 through PZ-5, PZ-8, PZ-9, PZ-11R, PZ-13, PZ-14, and PZ-15 are completed in the Sheep Creek alluvial system. Paired piezometers PZ-7A and PZ-7B are located near the headwaters of Coon Creek and PZ-12 is located adjacent to Coon Creek, near PW-3. PZ-10 is located adjacent to the unnamed tributary to Coon Creek, south of wells MW-9, PW-9, and PW-10 (Figure 3). The VWPs (GEOT18-7, -8, -9) were installed during January 2019 to monitor water levels along the trend of the decline. These VWPs are installed at various depths in fully-grouted boreholes. The completion details of each piezometer are summarized in Table 1.

The groundwater monitoring was conducted in accordance with the schedule described in Section 1.0 and is summarized below:

1. Measurement of SWL;
2. Well purging and monitoring for field parameter stabilization; and
3. Water quality sample collection.

Several wells (MW-3, MW-9, PW-3, PW-4, PW-8, PW-9, and PW-10) have been instrumented with pressure transducers to monitor water levels on 4-hour intervals since 2015. The transducer data are barometrically compensated and the water level elevation is calculated based on the measuring point elevation.

3.0 RESULTS

3.1 SURFACE WATER

Surface water flows measured in 2019 at each monitoring station are summarized in Table 6. During winter months, many of the sites were partially or fully frozen or dry, which precluded flow measurements at all sites during January and February. With the exception of SW-14 in March, November, and December and SW-9 in March, frozen or dry conditions precluded flow measurements at all sites during these months.

3.1.1 Stream Flow

Flow measurements from the baseline monitoring (2011 to 2019) at all surface water monitoring sites are included on hydrographs in Appendix A1. A hydrograph from the SW-1 stream gaging station on Sheep Creek is shown on Figure 5. In general, the flow rates measured at surface water sites in 2019 were within the range of previously observed values and exhibit similar trends to the SW-1 hydrograph for Sheep Creek. With the exception of frozen conditions, the lowest flows are typically observed in the fall and peak flows are observed in the spring. Stream flows measured at surface water monitoring sites in 2019 are described below by water body and summarized in Table 6.

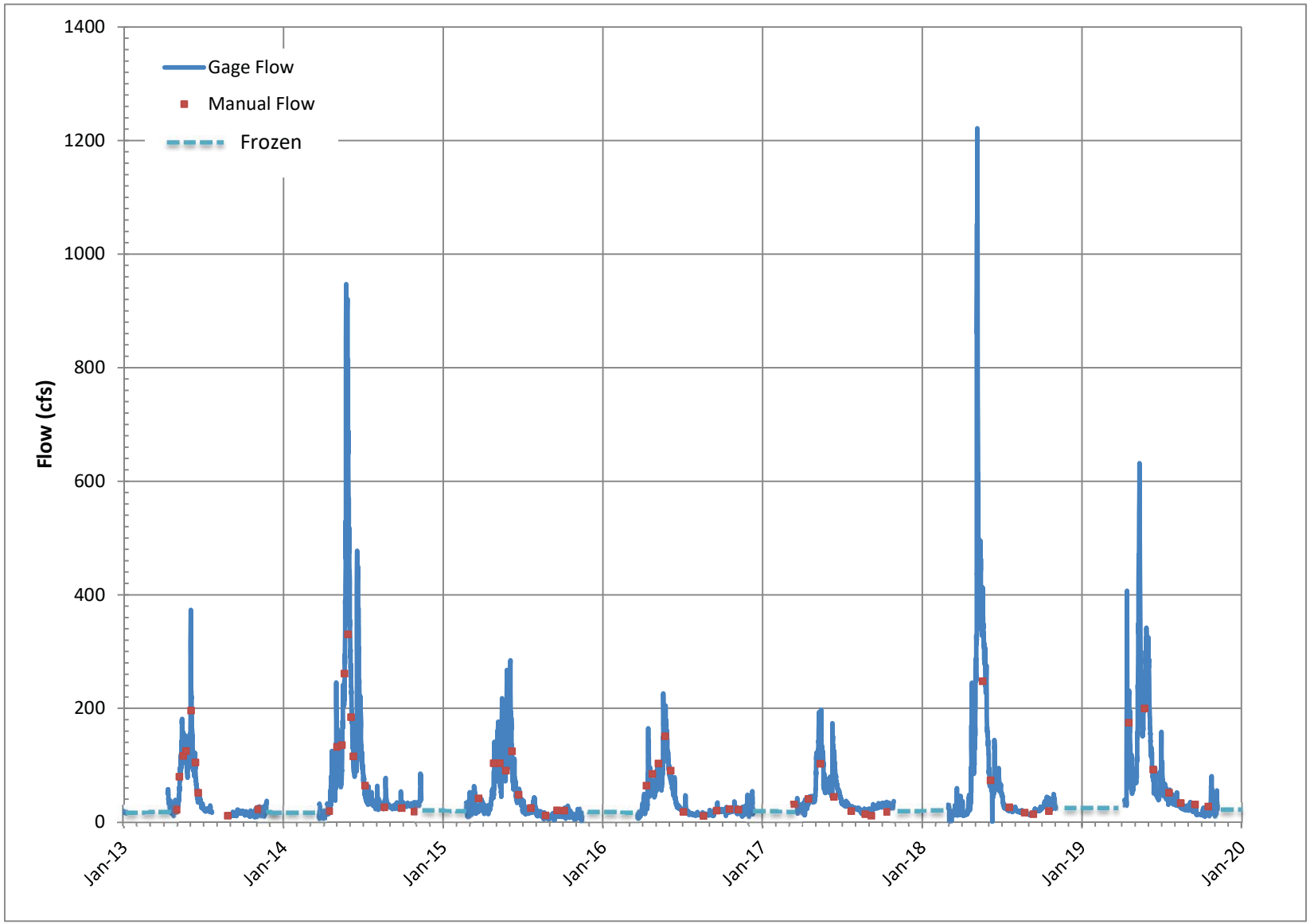
3.1.1.1 Sheep Creek

Flow measurements at Sheep Creek surface water monitoring sites (SW-1, SW-2, and USGS-SC1) ranged from approximately 18.16 cfs (September) to 62.28 cfs (June) at the upstream site (USGS-SC1) and 26.85 cfs (October) to 199.5 cfs (May) at the downstream site (SW-1) during 2019. The flows measured at the intermediate site (SW-2) ranged from 9.43 cfs in September to 71.76 cfs in June 2019. It should be noted that the peak flow measured at SW-1 was during high runoff in May 2019 and measurements were not collected at other Sheep Creek sites in May due to unsafe access. The timing and magnitude of flows measured at Sheep Creek monitoring sites were within the previously observed range and period as shown by the hydrographs in Appendix A1.

TABLE 6. SURFACE WATER FLOW SUMMARY 2019

Site	units	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19
SW-1	cfs	NM-ICE	NM	NM-ICE	174.30	199.50	91.93	51.24	33.11	30.28	26.85	NM-ICE	NM-ICE
SW-2	cfs	--	NM-ICE	NM-ICE	93.98	NM	71.76	43.96	30.89	24.32	21.99	NM-ICE	NM-ICE
SW-3	cfs	NM	NF-DRY	NM-ICE	NM	0.18	0.09	0.12	0.06	0.07	NM	NM-ICE	NF-ICE
SW-4	cfs	--	--	NM-ICE	--	--	0.13	0.01	0.01	0.01	0.01	NF-ICE	NF-ICE
SW-5	cfs	--	--	NF-DRY	--	--	NF-DRY	--	--	NF-DRY	--	NM-DRY	--
SW-6	cfs	--	--	NM-ICE	--	--	0.63	--	--	0.14	--	NF-ICE	--
SW-7*	gpm	--	--	--	--	--	--	--	0.6*	--	0.94*	--	--
SW-8	cfs	--	--	NM-ICE	--	--	1.45	--	--	0.68	--	NF-ICE	--
SW-9	cfs	--	--	0.60	--	--	2.32	--	--	0.59	--	NM-ICE	--
SW-10	cfs	--	--	NM-ICE	--	--	1.66	--	--	0.40	--	NF-ICE	--
SW-11	cfs	--	--	NM-ICE	--	--	2.68	--	--	0.93	--	NM-ICE	--
SW-14	cfs	NM-ICE	NM-ICE	1.14	15.54	5.87	6.53	4.03	1.33	1.17	1.28	0.58	0.39
SW-17	cfs	NM-ICE	NF-DRY	NM-ICE	4.36	1.37	0.75	0.15	0.25	0.24	0.24	NM-ICE	NM-ICE
SW-18	cfs	NM	NF-DRY	NF-DRY	NM	NM	NF-DRY	NF-DRY	NF-DRY	NF-DRY	NF-DRY	NM-DRY	NF-DRY
SW-19	cfs	--	--	--	NM	1.34	0.79	0.26	0.14	0.14	0.10	NM-ICE	NM-ICE
USGS-SC1	cfs	NM	NM-ICE	NM-ICE	NM-ICE	NM	62.28	39.73	24.42	18.16	16.12	--	--

All values are reported in cubic feet per second unless otherwise noted
NM: Not Measured
NM-ICE: Not Measured, Ice Prohibitive
NF-ICE: Not Flowing, Ice on ground
NF-DRY: Not Flowing, Dry ground
* = Flow recorded in gallons per minute



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Figure 5
SW-1 Hydrograph
Black Butte Copper Project
Meagher County, Montana

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The manual flow measurements collected at SW-1 were consistent with the gaging station and rating curve data and are within measurement error. The gaging station hydrograph (Figure 5) indicates the peak flow occurred on May 18, 2019 at approximately 631 cfs. The peak flow at SW-1 occurred at the same time as peak flow at the Smith River USGS gaging station near Fort Logan (06077200), below its confluence with Sheep Creek. The flow in Sheep Creek and the Smith River exhibit similar timing of peak and low flows during the baseline monitoring period.

3.1.1.2 Little Sheep Creek

Flow measurements at Little Sheep Creek surface water monitoring sites SW-8 (upstream) and SW-14 (downstream) ranged from 0.68 cfs at SW-8 in September to 15.54 cfs at SW-14 in April. In June 2019, the flow at SW-8 and SW-14 were 1.45 cfs and 6.53 cfs, respectively (Table 6). The increase in flow at SW-14 is from tributary and groundwater contributions between upstream and downstream sites. With the exception of peak flow, the timing and magnitude of flows measured at Little Sheep Creek sites in 2019 were within the range of previously observed values. In 2019, the highest flow was measured April at the maximum observed rate of 15.54 cfs. In prior years, the highest flow has been observed in May at up to 11.75 cfs (May 2016).

3.1.1.3 Coon Creek

With the exception of the flow measured at SW-17 in April, the flows measured at Coon Creek sites in 2019 were within the range previously observed. Flow measurements at Coon Creek surface water monitoring sites (SW-3, SW-4, SW-17, and SW-18) ranged from 0.07 cfs at SW-3 in September to 4.36 cfs at SW-17 in April (Table 6). The flow measured at SW-17 in April (4.36 cfs) represents the maximum observed to date. Flow measurements at SW-4 ranged from approximately 0.01 cfs in August to 0.14 cfs in October. Measurements at SW-18 were not collected due to dry conditions. The hydrographs in Appendix A1 exhibit an increase in flow along Coon Creek, suggesting an influx of groundwater, which is consistent with previous synoptic monitoring results (Hydrometrics, 2015a).

3.1.1.4 Brush Creek

Flow measurements at the Brush Creek surface water monitoring site (SW-6) ranged from 0.63 cfs in June to 0.14 cfs in September (Table 6). The magnitude of peak flow measured in 2019 was greater than the previous five years, though within the range of baseline data.

3.1.1.5 Black Butte Creek

Flow measurements at Black Butte Creek surface water monitoring sites (SW-9, SW-10, SW-11, and SW-19) ranged from 0.1 cfs at SW-19 in September to 2.68 cfs at SW-11 in June (Table 6). The flows measured during 2019 were within the ranges previously observed. The hydrographs in Appendix A1 exhibit overall increasing flows with downstream distance along Black Butte Creek. Monitoring was not conducted at the unnamed tributary to Black Butte Creek (SW-5) due to dry conditions.

3.1.2 Surface Water Quality

Surface water quality data for 2019 and trend graphs of physical parameters (field pH, TDS, alkalinity, and dissolved oxygen (DO)), total nitrogen, and metals (total recoverable arsenic, strontium, and dissolved aluminum) concentrations are included in Appendix B (compiled by water body and presented in order from upstream to downstream, when applicable). Surface water quality during 2019 was similar at all of the surface water monitoring sites and consistent with previous monitoring data. The data collected in 2019 are characterized by the following:

- Calcium bicarbonate type water;
- Moderately hard to hard water;
- slightly acidic to alkaline pH (6.13 s.u. to 8.67 s.u.);
- Low nutrient concentrations (0.05 mg/L to 0.52 mg/L total nitrogen);
- Low total dissolved solids (TDS) (53 to 314 mg/L); and
- Low level detection of metals at one or more sites, including: arsenic, barium, cadmium, copper, iron, lead, manganese, mercury, nickel, strontium, uranium, zinc, and dissolved aluminum (Appendix B).

The concentrations of dissolved aluminum in Sheep Creek at SW-1 (0.41 mg/L), SW-2 (0.47 mg/L), and USGS-SC1 (0.12 mg/L) from samples collected on April 24th exceeded the 0.087 mg/L Chronic Aquatic Life Standard (DEQ, 2019). Similarly, the concentration of total recoverable iron in Sheep Creek at SW-1 (2.11 mg/L), SW-2 (1.45 mg/L), and USGS-SC1 (1.22 mg/L) from samples collected on April 24th exceeded the 1.0 mg/L Chronic Aquatic Life Standard. These concentrations of dissolved aluminum and total recoverable iron are consistent with prior baseline monitoring data collected during high flow period related to spring runoff. There were no other water quality standard exceedances at surface water sites during 2019.

As noted above, the water quality observed during 2019 were consistent with previous results. Reviews of trend graphs throughout the baseline monitoring period are summarized below by surface water body. Overall, the trends for arsenic and dissolved aluminum indicate infrequent low-level detection at concentrations near or below the detection throughout most of the year, with occasional detection of elevated concentrations during spring runoff. It should be noted that occasional low field pH values recorded during winter months may be affected by low (near freezing) water temperatures, as exhibited by pH measured in February at all Sheep Creek monitoring sites (Appendix B).

3.1.2.1 Sheep Creek

The trend graphs for surface water monitoring sites SW-1, SW-2, and USGS-SC1 (Appendix B) exhibit overall stable trends with evident seasonal variation. The pH measured at these sites in 2019 indicates a wide range of values, from slightly acidic (6.13 s.u.) to alkaline (8.67 s.u.) pH, which is consistent with previous baseline monitoring. The concentrations of TDS, alkalinity, and strontium temporarily decrease during spring runoff; however, the concentration of dissolved aluminum periodically increases (up to 0.47 mg/L at SW-2 in 2019) to concentrations above the Chronic Aquatic Life standard (0.087 mg/L) during spring runoff. Additionally, the trend graphs for total nitrogen exhibit periodic increases of up to 1.4 mg/L (SW-2) during spring and winter, which are likely due to increases in concentrations of organic nitrogen or ammonia; the concentrations of total nitrogen are up to an order of magnitude greater than nitrate+nitrite during these periods. The elevated total

nitrogen concentrations during spring are likely due to surface runoff from agricultural fields, whereas elevated concentrations during the winter may be due to the release and oxidation of ammonia from decomposition of organic matter.

3.1.2.2 Little Sheep Creek

The trend graphs for surface water monitoring site SW-14 exhibit overall stable trends for all constituents with only slight indication of seasonal variation. The monitoring at SW-14 indicates acidic (6.07 s.u.) to alkaline (8.38 s.u.) pH throughout the baseline monitoring period. The concentrations of TDS, alkalinity and strontium occasionally decrease during spring runoff and return to generally stable concentrations each year. The concentration of dissolved aluminum is typically near or below the detection limit (0.009 mg/L); however, during April 2019, the dissolved aluminum concentration at SW-14 increased to approximately 0.029 mg/L, within the range of concentrations observed in the spring of 2017. Similar to Sheep Creek, the total nitrogen concentration at SW-14 increased during April 2019 to a maximum value of 0.37 mg/L; the increase in concentrations during the early spring may be due to the release of ammonia nitrogen from decomposition of organic matter.

3.1.2.3 Coon Creek

The trend graphs for surface water monitoring sites SW-3, SW-4, and SW-17 exhibit overall stable trends with minor seasonal variation and data from 2019 are consistent with trends of previous baseline monitoring. The field pH measurements indicate alkaline pH (7.47 s.u. to 8.70 s.u.) throughout the baseline monitoring period. The TDS, alkalinity, and strontium trends are generally consistent from upstream (SW-4) to downstream (SW-17). Minor decreases in concentrations of most parameters are observed during spring runoff. Based on available data from SW-4 in 2019, strontium concentrations slightly decrease between SW-4 and SW-3. The concentration of dissolved aluminum typically remains near or below the detection limit (0.009 mg/L) at all sites; however, the concentration increased to 0.047 during runoff in April 2019. The trend graphs for total nitrogen exhibit a range of concentrations between 0.07 mg/L to 0.6 mg/L; the highest concentration measured in 2019 was 0.49 mg/L at SW-17 in June. The increased total nitrogen concentrations during spring are likely due to surface runoff from agricultural fields. In contrast to quarterly monitoring, the monthly

monitoring frequency indicates greater variability of most parameters, as evidenced by trends for SW-3.

3.1.2.4 Brush Creek

The trend graphs for surface water monitoring site SW-6 indicate overall stable trends of all constituents. The sample collected at SW-6 in March 2019 likely resembling contribution from runoff, having the lowest measured concentrations of alkalinity (65 mg/L), TDS (100 mg/L), and strontium (0.05 mg/L) and conversely, the highest measured total nitrogen concentration (0.78 mg/L). The field pH measurements indicate a range of near neutral to alkaline pH (6.67 s.u. to 8.68 s.u.) throughout the baseline monitoring period. With the exception of August 2012, the trend graph of dissolved aluminum exhibits concentrations near or below the detection limit for the baseline period and the concentration of dissolved aluminum was detectable at 0.02 mg/L and 0.024 mg/L in March and November 2019, respectively. The total nitrogen concentrations in 2019, as exhibited in the trend graph, were consistent with previous results for the majority of the year, with highest concentration observed during spring and fall months. As described above, the 0.78 mg/L concentration in March 2019 was the highest observed throughout the baseline period.

3.1.2.5 Black Butte Creek and Unnamed Tributary to Black Butte Creek

The trend graphs for surface water monitoring site SW-11 on Black Butte Creek indicate stable trends for physical parameters (field pH, TDS, alkalinity, and DO), total nitrogen and strontium. The field pH measurements indicate a range of near neutral to alkaline pH (7.45 s.u. to 8.69 s.u.) throughout the baseline monitoring period. The trend graph for arsenic exhibits concentrations at or below the detection limit during the baseline monitoring including 2019. The trend graph for dissolved aluminum exhibits overall low stable concentrations. However, during spring runoff, the concentration of dissolved aluminum in Black Butte Creek can typically exceed the chronic aquatic life standard (0.087 mg/L); the 2019 concentrations of aluminum were below detection limits. The trend graphs of TDS, alkalinity, and strontium exhibit minor decreases in concentration during spring runoff.

Due to the ephemeral nature of the unnamed tributary, water at SW-5 is typically observed only during high spring runoff; therefore, evaluation of seasonal trends is not possible and for this reason, trend graphs are not included in Appendix C. Throughout the baseline monitoring period, five water quality samples have been collected from SW-5 (2011, 2012, 2013, 2015, and 2017) during spring monitoring events. Samples were not collected from SW-5 during 2019 due to dry conditions.

3.2 SPRINGS AND SEEPS

The flow measurements and water quality data from springs and seeps monitored during 2019 are consistent with previous monitoring and summarized below and presented in Appendix A1 (flow) and Appendix C (water quality). During winter months, many of the springs were fully frozen or dry, which precluded flow measurements and sample collection from most sites during January through April and November through December.

3.2.1 Spring Flow

Hydrographs from the baseline monitoring at spring monitoring sites are included in Appendix A1. In general, the hydrographs for spring sites exhibit similar timing of peak flow to the surface water monitoring sites. With the exception of frozen conditions, the lowest flows are typically observed in the fall and late winter; whereas peak flows are typically observed in the spring at most sites and early summer at SP-7. The hydrographs illustrate sudden responses to snowmelt, where flow rates quickly increased to maximum observed annual flow between monthly monitoring events; followed by relatively slow decreasing trend toward base flow conditions within three to four months. The flow rates were not measured at SP-11 and SP-12 in 2019 due to the flow not being within a discernable channel at SP-11 and unsafe access and disperse flow at SP-12. Additionally, flow was not measured at DS-5 and DS-6 due to dry conditions and DS-4, SP-1, and SP-2 due to the flow not being in a discernable channel, resulting from livestock trampling.

The flows at SP-7 were consistent with previous data, ranging from 8 gpm in February to 100 gpm in July. The flow at DS-4 was too low to measure (<0.1 gpm), disperse, or the spring was dry in 2019. The measurements and observations of flow conditions at springs in 2019 were consistent with previous data. Beginning in September, flow at several springs ceased,

marked by dry conditions at SP-2, DS-4, DS-5, and DS-6, followed by frozen conditions at many sites during the winter. Eight of 17 springs were flowing in December, with rates ranging from 0.32 gpm at DS-2 to 19.75 gpm at SP-7.

3.2.2 Spring Water Quality

The spring water quality data from the 2019 baseline water resource monitoring are compiled in Appendix C along with trend graphs of physical parameters (field pH, TDS, and alkalinity), nitrate+nitrite, and metals (arsenic, iron, strontium, and thallium) concentrations.

Water quality at springs and seeps during 2019 was within the ranges of previous monitoring data and similar to the wells completed in shallow alluvium and weathered bedrock. The water quality at springs and seeps during 2019 is characterized by the following:

- Calcium bicarbonate type water;
- Moderately hard to hard water;
- Slightly acidic to alkaline pH (6.25 s.u. to 8.17 s.u);
- Low to moderate TDS concentrations (49 mg/L to 341 mg/L); and
- Low level detection of metals, including: dissolved aluminum, arsenic, barium, copper, iron, manganese, mercury, nickel, selenium, strontium, thallium, uranium, and zinc (Appendix C).

Trace constituents were all below groundwater human health standards, with most constituents being near or below the detection limit. Field parameters and analytical water quality results from the 2019 spring and seep monitoring are included in Appendix C.

The trend plots in Appendix C indicate overall stable and low concentrations of dissolved arsenic, iron, strontium, and thallium, with concentrations commonly below the detection limit. The concentrations of iron, strontium and TDS exhibit seasonal variation, where the annual trends in 2019 are consistent with prior data. High iron and TDS concentrations and low strontium concentrations are typical during spring runoff, whereas strontium concentrations increase and iron and TDS concentrations gradually throughout the year. The trend plots also indicate that increases in arsenic concentrations are contemporaneous with

elevated iron concentrations at these sites during spring monitoring periods. The nitrate + nitrite concentration at all springs remain below 0.5 mg/L in 2019.

3.3 GROUNDWATER

The number of sites that parameters, samples, and/or water level measurements were collected each quarter of 2019 is summarized in Table 7. Water quality samples and field parameter measurements were not collected from the test wells during the first and fourth quarter monitoring events due to snow pack and frozen ground conditions. Additionally, water quality samples, field parameter measurements, and SWL measurements were not collected from wells MW-14 and MW-15 due to the remaining dye in the wells from the Eastern UIG tracer study.

TABLE 7. SUMMARY OF GROUNDWATER MONITORING DATA COLLECTION

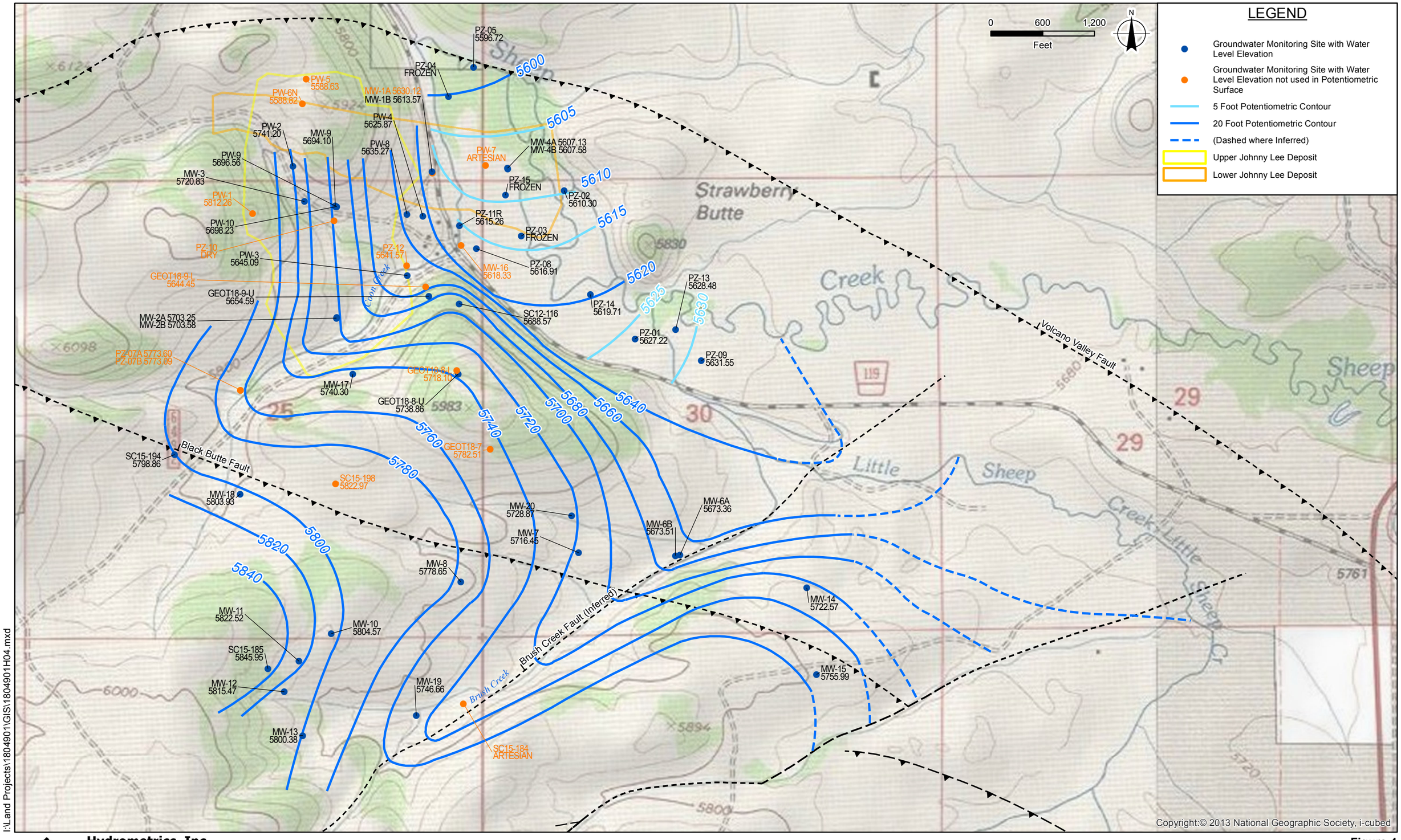
2019 Quarter	Month	Number of Locations Monitored					
		Field Parameters	Water Quality Samples	SWL Measurements			
				Monitoring Wells	Test Wells	Piezometers	V. W. P.
First	January	--	--	--	--	--	--
	February	--	--	--	--	--	--
	March	20	21	27	9	12	5
Second	April	--	--	--	--	--	--
	May	--	--	--	--	--	--
	June	32	32	26	9	15	5
Third	July	1	1	--	--	--	--
	August	--	--	--	--	--	--
	September	31	31	26	9	14	5
Fourth	October	1	1	--	--	--	--
	November	24	24	26	10	9	5
	December	--	--	--	--	--	--

3.3.1 Groundwater levels

Groundwater levels measured during 2019 were consistent with previous data collected. A summary of water level elevation data collected quarterly during 2019 and hydrographs of

baseline monitoring water level data provided in Appendix A2. The coordinates for VWPs shown in Appendix A2 are the projected coordinates based on completion information collar coordinates (Table 1). Groundwater elevations, calculated for each well and piezometer, were used to construct quarterly potentiometric surface maps shown on Figures 6A through 6D. The baseline potentiometric data are consistent with the earlier Cominco interpretations (Chen-Northern, 1989) and show that the overall groundwater flow direction in the bedrock is generally towards Sheep Creek, with an eastward flow direction in the vicinity of the Johnny Lee Deposit and a northeastern direction in the area between Coon Creek and Brush Creek (Figures 6A through 6D). The potentiometric maps indicate the hydraulic gradient is stable seasonally and consistent with previous results. The gradient measured in the vicinity of the Upper Johnny Lee Deposit near wells MW-3 and PW-4 was 0.08 during 2019. A slightly lesser gradient (0.04) was observed in the area north of MW-8 in 2019. Within the alluvial system, the gradient was relatively low, ranging from 0.005 to 0.009.

Vertical hydraulic gradients were evaluated in the areas where there are paired wells and triplicate wells as shown on Figures 6A through Figure 6D. The vertical gradients calculated from water level data during 2019 are in Table 8, and do not indicate seasonal variability. There is a strong downward gradient at paired wells MW-1A/MW-1B and PW-4/PW-8 which are located near the eastern edge of the Upper Johnny Lee Deposit (Table 8), averaging -0.27 and -0.17, respectively. Water levels at other areas within the deposit area indicate relatively weak upward gradients (ranging between 0.02 to 0.03) shown by well pairs MW-2A/-2B and MW-9/PW-9, located in the southern and central portion of the deposit, respectively. Well pair MW-6A/-6B are shallow wells completed near Brush Creek and show a consistently small head differential and a non-discernable vertical gradient (<0.01) throughout the year. Well pair MW-4A/MW-4B is completed in the Sheep Creek alluvial system and underlying bedrock, respectively. These wells show a weak upward gradient (0.02) between the bedrock system and alluvial system. The triplicate well set (MW-9, PW-9, and PW-10) showed a relatively weak upward gradient (0.02 to 0.03) between the UCZ (PW-9) and the overlying Lower Newland Formation (YNL-A) (MW-9) and the underlying lower Newland Formation (YNL-B) (PW-10).

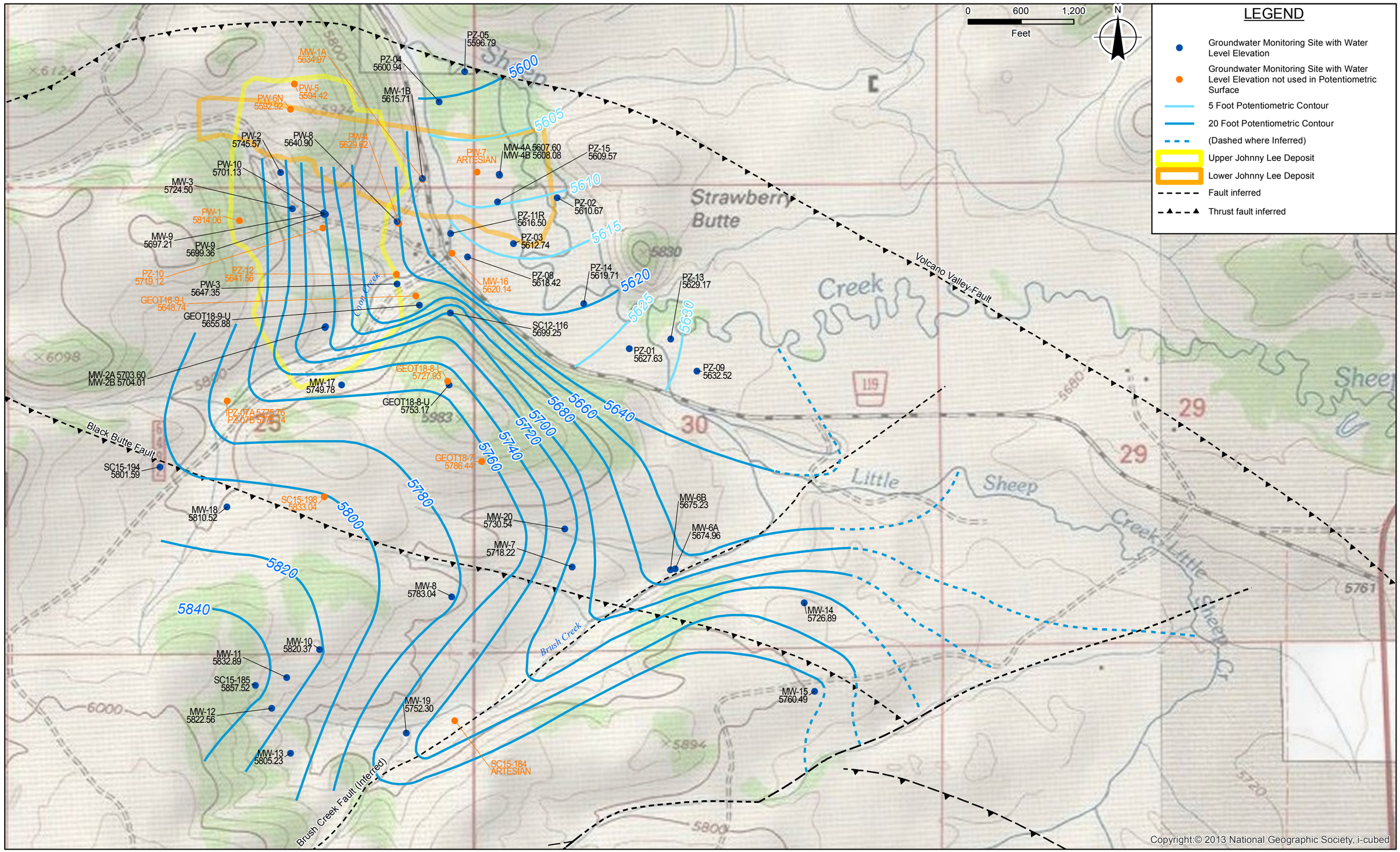


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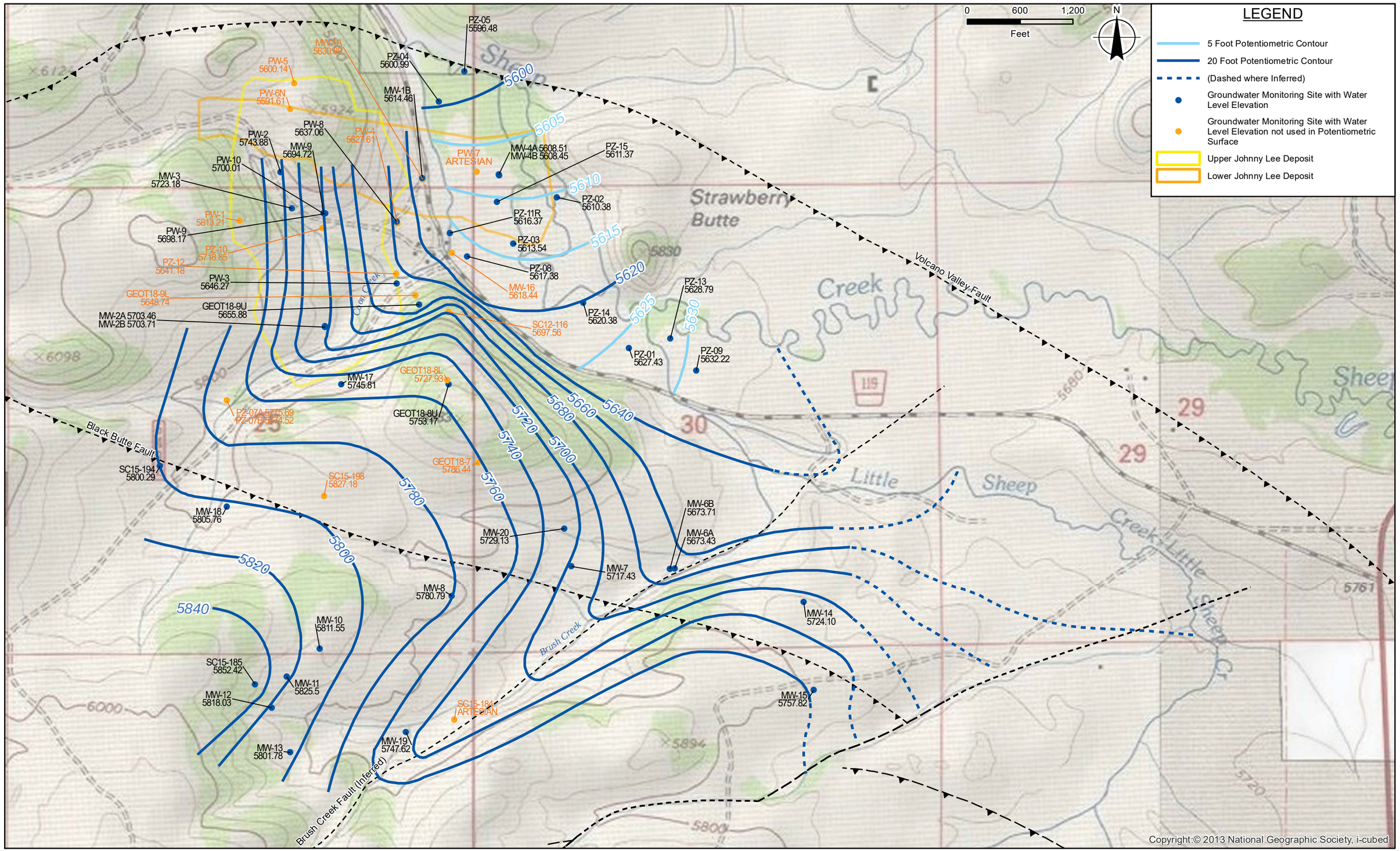
Figure 4
2019 First Quarter Potentiometric Surface Map
Black Butte Copper Project
Meagher County, Montana



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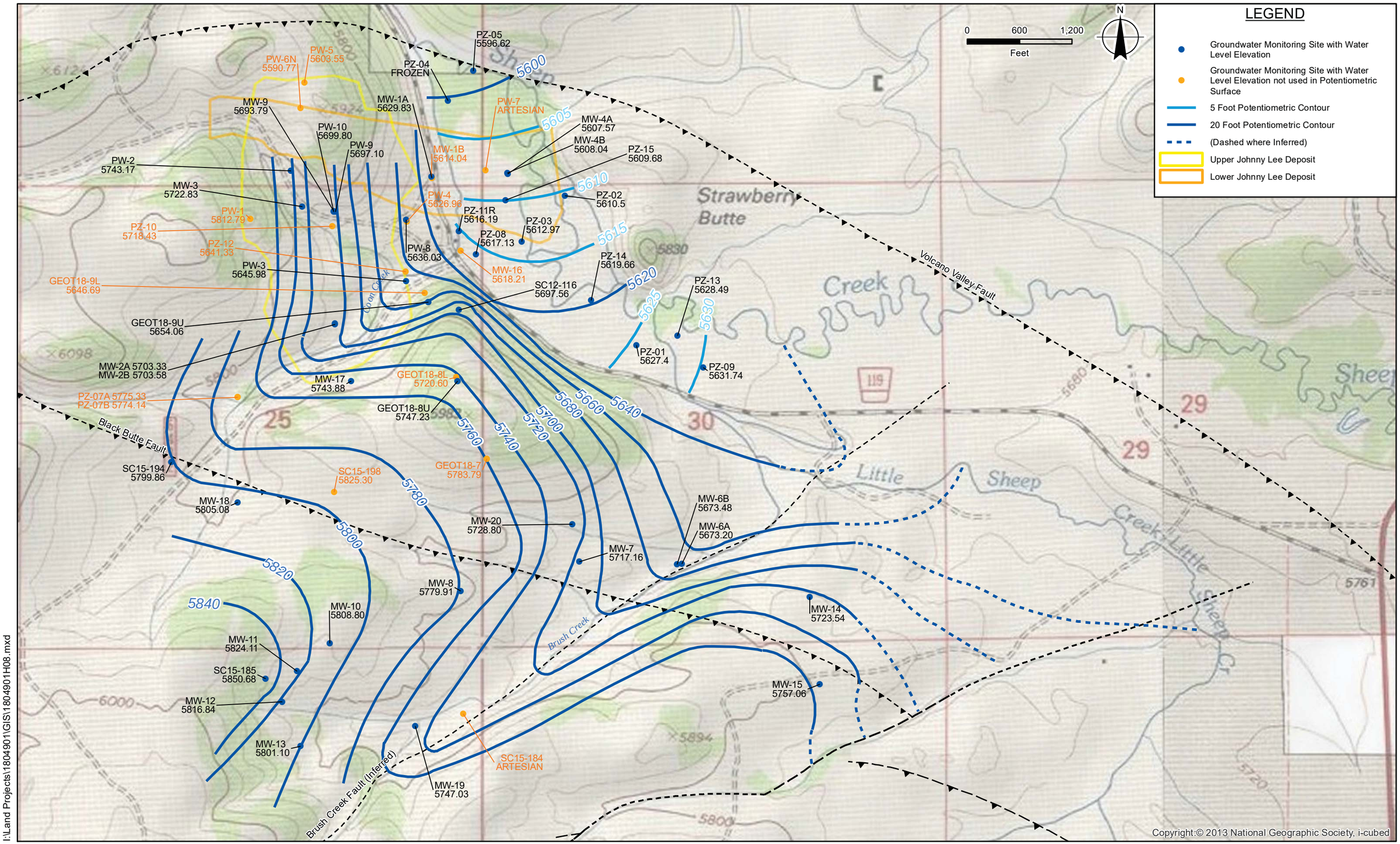
Figure 4
2019 Second Quarter Potentiometric Surface Map
Black Butte Copper Project
Meagher County, Montana



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Figure 6
2019 Third Quarter Potentiometric Surface Map
Black Butte Copper Project
Meagher County, Montana



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Figure 6
2019 Fourth Quarter Potentiometric Surface Map
Black Butte Copper Project
Meagher County, Montana

TABLE 8. SUMMARY OF VERTICAL HYDRAULIC GRADIENTS

Shallow Well	Deep Well	Location	Mar-2019	Jun-2019	Sept-2019	Nov-2019
			Head Differential (ft) Vertical Gradient (ft/ft)[1]			
MW-1A	MW-1B	Eastern edge of the Upper Johnny Lee Deposit	16.55 -0.26	19.26 -0.30	16.43 -0.26	15.79 -0.25
MW-2A	MW-2B	Southern portion of the Upper Johnny Lee Deposit	0.33 0.02	0.41 0.02	0.25 0.01	0.25 0.01
MW-4A	MW-4B	Sheep Creek alluvial valley	0.45 0.02	0.48 0.02	0.06 ND	0.47 0.02
MW-6A	MW-6B	Near Brush Creek	0.15 ND	0.27 ND	0.28 ND	0.28 ND
PW-8	PW-4	Eastern edge of the Upper Johnny Lee Deposit	9.40 -0.16	11.28 -0.19	9.45 -0.16	9.07 -0.15
MW-9	PW-9	Central area of the Upper Johnny Lee Deposit	2.47 0.02	2.15 0.02	3.45 0.03	3.31 0.03
PW-9	PW-10	Central area of the Upper Johnny Lee Deposit	1.66 0.02	1.76 0.02	0.18 0.02	2.70 0.03

Note:

1. Negative values are downward gradient; positive values are upward gradient; gradients <0.01 are considered non-discernable.

Overall, the water levels measured during 2019 are consistent with prior baseline monitoring data. The water levels exhibit seasonal variation up to approximately 16 feet (MW-10), with the highest groundwater elevation typically occurring in the spring and the lowest groundwater elevation occurring in the fall or late winter. Hydrographs for the monitoring and test wells are grouped by their general location within the northern and southern areas of operating permit boundary as included in Appendix A2. Additionally, transducers were installed in seven wells (MW-3, MW-9, PW-3, PW-4, PW-8, PW-9, and PW-10) in 2015 to monitor seasonal and long-term water level trends. The hydrographs for these wells, including manual measurements and transducer data (collected on 4-hour intervals) are provided in Appendix A2. These hydrographs exhibit groundwater level variation within and

adjacent to the Johnny Lee Deposit and indicate a maximum water level variation of up to approximately 9 feet (PW-8). The hydrographs indicate groundwater recharge is first recognized at the wells in March and peak water levels were observed in early May 2019. At many of these wells, pumping during water quality monitoring causes short-term effect on water levels, attributed to aquifers response to pumping (drawdown and recovery of the wells), as shown by variability in water levels near the time when manual measurements are collected (Appendix A2).

The VWPs show consistent water level trends between the deep and shallow aquifer and indicate peak water levels occurred in late April to mid-May in 2019. The water levels show a quick response to recharge, followed by a steady decline in pressure, following a nearly linear trend.

3.3.2 Groundwater Quality

The groundwater quality data from the 2019 baseline water resource monitoring are compiled in Appendix D along with trend graphs of physical parameters (field pH, TDS, and alkalinity), nitrate+nitrite, and dissolved metals (arsenic, iron, strontium, and thallium) concentrations. Groundwater quality showed some differences related to well depths and completion zones; brief descriptions of water quality are summarized below based on groups of wells sharing similar completion and water quality results. Wells MW-14 and MW-15 were not sampled during 2019 because of high concentrations of rhodamine dye remaining in the wells after the Eastern UIG tracer study. The high concentrations of rhodamine dye preclude laboratory analysis.

The groundwater Human Health Standards (DEQ, 2019) for dissolved arsenic (0.01 mg/L), strontium (4 mg/L) and thallium (0.002 mg/L) were exceeded at several monitoring/test wells throughout 2019. A summary of the observed concentrations for these metals, associated with the exceedances, is provided in Table 9.

TABLE 9. GROUNDWATER HUMAN HEALTH STANDARD EXCEEDANCES

Site	Date	Sample ID	Arsenic (DIS)	Strontium (DIS)	Thallium (DIS)
			mg/L	mg/L	mg/L
MW-1B	3/26/19 10:55	BBC-1903-205	0.07	--	0.0125
MW-1B	6/19/19 15:45	BBC-1906-214	0.067	--	0.0113
MW-1B	9/18/19 12:20	BBC-1909-205	0.066	--	0.0117
MW-1B	11/11/19 17:05	BBC-1911-203	0.062	--	0.0123
MW-2B	3/26/19 10:00	BBC-1903-204	--	--	0.0038
MW-2B	6/17/19 18:20	BBC-1906-202	--	--	0.0036
MW-2B	9/18/19 18:30	BBC-1909-209	--	--	0.0034
MW-2B	11/12/19 10:15	BBC-1911-206	--	--	0.0035
MW-3	3/25/19 15:40	BBC-1903-200	0.071	13.6	--
MW-3	6/17/19 16:55	BBC-1906-200	0.068	13.6	--
MW-3	9/19/19 19:00	BBC-1909-223	0.065	13.3	--
MW-3	11/12/19 11:50	BBC-1911-207	0.07	12.8	--
MW-9	3/25/19 17:25	BBC-1903-201	0.014	--	0.0027
MW-9	6/19/19 17:00	BBC-1906-213	0.014	--	0.0027
MW-9	9/20/19 12:40	BBC-1909-227	0.012	--	0.0032
MW-9	11/12/19 13:45	BBC-1911-208	0.015	--	0.0036
PW-4	6/19/19 17:00	BBC-1906-212	0.06	9.62	--
PW-4	9/18/19 13:10	BBC-1909-204	0.063	9.88	--
PW-8	6/19/19 10:05	BBC-1906-210	0.013	--	0.0026
PW-8	9/17/19 17:55	BBC-1909-203	0.012	--	0.0025
PW-9	6/18/19 18:30	BBC-1906-209	0.086	9.29	--
PW-9	9/17/19 16:06	BBC-1909-202	0.085	9.08	--
PW-10	6/18/19 15:30	BBC-1906-208	0.059	13.2	--
PW-10	9/17/19 12:05	BBC-1909-201	0.063	12.6	--

3.3.2.1 Wells Completed in Shallow Weathered Bedrock/Overburden

The wells MW-1A, MW-2A, MW-4A, and MW-6A are completed in the shallow highly weathered bedrock or unconsolidated overburden. The water quality data from 2019 were consistent with previous baseline data and are characterized by the following:

- Calcium bicarbonate type water;
- Near neutral to slightly alkaline pH (7.19 to 7.73 s.u.);
- Low sulfate concentrations (12 to 22 mg/L);
- Moderate TDS concentrations (187 mg/L to 328 mg/L); and
- Low concentrations of many dissolved metals during one or more monitoring events, including: aluminum, barium, copper, iron, lead, manganese, selenium, strontium, thallium, and uranium at one or more wells (Appendix D).

The trend graphs in Appendix D exhibit overall stable concentrations of all parameters and constituents with minor seasonal variation apparent by TDS and alkalinity. The trend graphs exhibit low nitrate+nitrite concentrations (< 1.0 mg/L) with no apparent seasonality. The trend graphs for dissolved metals exhibit stable low concentrations at all wells, with the exception of a few anomalies. The data from 2019 are consistent previous baseline data and there were no exceedances of the groundwater human health standards (DEQ, 2019) at MW-1A, MW-2A, MW-4A, and MW-6A in 2019.

3.3.2.2 Wells Complete in YNL-A

Wells completed above the USZ in YNL-A include; MW-2B, MW-4B, MW-6B, MW-7, MW-8, MW-13, MW-16, MW-17, MW-18, MW-19, MW-20, and PW-3. The water quality at these wells from 2019 is consistent with previous data. The data from 2019 are characterized by the following:

- Calcium-magnesium bicarbonate type water;
- Near neutral to slightly alkaline pH (7.11 to 8.06 s.u.);
- Low to moderate sulfate concentrations (6 to 149 mg/L);

- Moderate TDS concentrations (151 mg/L to 463 mg/L); and
- Low concentrations of numerous dissolved metals at one or more wells, including: aluminum, arsenic, barium, iron, lead, manganese, molybdenum, nickel, selenium, strontium, thallium, uranium, and zinc (Appendix D).

The trend graphs (Appendix D) exhibit overall stable concentrations at all wells with minor variability. The trend graphs exhibit low nitrate+nitrite concentrations (0.5 mg/L or less) near or below the detection limit. With the exception of a few anomalies at MW-2B (arsenic, iron, and thallium), the trend graphs for dissolved metals exhibit stable low concentrations at all wells. The concentrations of thallium at MW-2B (0.0034 mg/L to 0.0038 mg/L) exceeded the 0.002 mg/L groundwater human health standard (DEQ, 2019) during all monitoring events in 2019. There were no other exceedances of the groundwater human health standards in 2019.

3.3.2.3 Wells Completed in or near the Upper Sulfide Zone (USZ)

The monitoring wells MW-1B, MW-3, MW-9, PW-2, PW-4, PW-8, and PW-9 are completed within or near the USZ. The water quality data from 2019 is consistent with previous baseline monitoring and characterized by the following:

- Calcium-magnesium bicarbonate-sulfate type water;
- Slightly acidic to near neutral pH (6.34 to 7.4 s.u.);
- Moderate to high sulfate (51 to 227 mg/L) concentrations;
- Elevated TDS concentrations (315 to 584 mg/L);
- Low concentrations of numerous dissolved metals during one or more monitoring events, including: aluminum, antimony, arsenic, barium, cobalt, iron, lead, manganese, nickel, strontium, thallium, uranium, and zinc; and
- Similar to previous results, the concentrations of iron at MW-1B (17.9 mg/L to 20 mg/L) and PW-4 (10.5 mg/L to 11 mg/L) were elevated in comparison to the concentrations at other wells, which ranged from 0.83 mg/L to 3.36 mg/L (Appendix D).

The trend graphs (Appendix D) exhibit overall stable concentrations at all wells without apparent seasonal trends. The trend graphs exhibit low nitrate+nitrite concentrations (0.5 mg/L or less) near or below the detection limit. The trend graphs for most dissolved metals exhibit generally stable low concentrations at all wells. Iron concentrations at PW-2 exhibit an increasing trend from 2.3 mg/L in 2016 to 3.36 mg/L in 2019. Iron concentrations at PW-4 show an increasing trend from 7.79 mg/L in 2016 to 11 mg/L in 2019. In contrast, the iron concentrations at MW-1B show a decreasing trend from 27.1 mg/L in 2011 to 17.9 mg/L in 2019. The dissolved metals that exceeded the groundwater human health standards in 2019 include arsenic (MW-1B, MW-3, MW-9, PW-4, PW-8, PW-9); strontium (MW-3, PW-4, PW-9); and thallium (MW-1B, MW-9, PW-8) as shown on Table 8.

3.3.2.4 Wells Complete in Granodiorite Bedrock

The monitoring wells MW-10, MW-11, and MW-12 are completed in granodiorite and data from 2019 exhibited similar water quality to previous baseline data. The water quality at these wells from 2019 is characterized by:

- Calcium bicarbonate water type;
- Near neutral to slightly alkaline pH (7.6 to 8.0);
- Low sulfate concentrations (4 to 13 mg/L);
- Moderate TDS concentrations (177 to 226 mg/L); and
- Low concentrations of numerous dissolved metals, including: aluminum, barium, iron, molybdenum, nickel, strontium, uranium, and zinc (Appendix D).

The trend graphs (Appendix D) exhibit overall stable concentrations at all wells with minor variability during 2019. The trend graphs exhibit low nitrate+nitrite concentrations (< 1.0 mg/L). The concentrations of arsenic and thallium at all wells and iron at MW-12 have remained below the detection limit throughout the baseline monitoring period. The concentrations of strontium at MW-10 and MW-11 exhibited slight to moderate variability during prior baseline monitoring and were stable during 2019. The elevated concentration of iron at MW-11 and variability of strontium at MW-10 and MW-11 are likely due to the relatively high turbidity observed during monitoring. These wells typically pump dry during

monitoring and are allowed to recover prior to sample collection. During 2019, there were no exceedances to the groundwater human health standards (DEQ, 2019) at these wells.

3.3.2.5 Core Hole Wells

The monitoring wells SC15-184, SC15-185, SC15-194, and SC15-198 exhibited similar water quality during 2019. During the third quarter monitoring event in March, wells SC15-185, SC15-194, and SC15-198 were not sampled due to snow conditions prohibiting site access with sampling equipment. The water quality data from 2019 are characterized by the following:

- Calcium-magnesium bicarbonate type water;
- Near neutral to slightly alkaline pH (7.71 s.u. to 8.0 s.u.);
- Low sulfate concentrations (6 mg/L to 32 mg/L);
- Moderate TDS concentrations (194 mg/L to 236 mg/L); and
- Low concentrations of dissolved metals at one or more sites, including: aluminum, arsenic, barium, iron, mercury, molybdenum, selenium, strontium, uranium, and zinc (Appendix D).

The trend graphs exhibit overall stable concentrations at all wells without apparent seasonal trends. The trend graphs exhibit low nitrate+nitrite concentrations (< 1.0 mg/L). With the exception of strontium, the trend graphs for dissolved metals exhibit stable trends with low concentrations near or below the detection limit. During 2019, there were no exceedances to the groundwater human health standards (DEQ, 2019).

3.3.2.6 Well Completed in YNL-B

The test well PW-10 is completed below the USZ in YNL-B. The groundwater at PW-10 during 2019 is characterized by the following:

- Calcium-magnesium bicarbonate-sulfate type water;
- Near neutral pH (7.34 s.u. to 7.45 s.u.);
- Moderate sulfate concentrations (190 mg/L to 204 mg/L);

- Elevated TDS concentrations (501 mg/L to 522 mg/L); and
- Low concentrations of dissolved metals, including: arsenic, barium, iron, manganese, strontium, uranium, and zinc (Appendix D).

The trend graphs exhibit overall stable concentrations at PW-10 without apparent seasonal trends. The pH measured at these sites throughout the baseline monitoring period indicates a range of values from neutral (7.02 s.u.) to slightly alkaline (7.54 s.u.). The trend graphs exhibit low nitrate+nitrite and thallium concentrations below the detection limits. The trend graphs for dissolved metals exhibit stable trends and with the exception of arsenic and strontium, dissolved metals are at low concentrations near or below the detection limit. The concentration of strontium ranges between in 2019 and exceeded the groundwater human health standard (4.0 mg/L). During 2019, the concentrations of strontium (12.6 mg/L and 13.2 mg/L) and arsenic (0.059 mg/L and 0.063 mg/L) exceeded the groundwater human health standards (DEQ, 2019).

3.3.2.7 Well Completed in the LCZ

The test well PW-7 is completed in the LCZ and the water quality during 2019 is unique in comparison to other units, which is characterized by the following:

- Sodium bicarbonate type water;
- Alkaline pH (8.55 s.u. to 8.64 s.u.);
- low sulfate concentrations (13mg/L to 14 mg/L);
- Elevated TDS concentrations (309 mg/L to 328 mg/L); and
- Low concentrations of dissolved metals, including: arsenic, barium, iron, lead, manganese, strontium, and zinc (Appendix D).

Due to the limited amount of data for PW-7, water quality trends during the baseline period are not discernable. However, the trend graphs in Appendix D exhibit consistently low nutrient and dissolved metals concentrations. During 2019, there were no exceedances to the groundwater human health standards (DEQ, 2019).

3.4 QUALITY CONTROL

The field quality control sample plan consists of collecting one field duplicate and one field blank sample for each source water (groundwater, surface water, and springs) and one rinsate blank for the groundwater sampling equipment during each monitoring event. Field duplicate samples are replicate samples, collected from a single sampling location, to evaluate the combined reproducibility (precision) of the field sampling and laboratory analysis protocols. The field blank samples are collected to evaluate potential contamination from ambient conditions during sampling, sample containers and preservatives, and laboratory processing and analysis. For the purposes of this project, field duplicates were collected by rinsing and filling two samples containers consecutively from the sampling location and preserving. The field blank samples are collected by rinsing and pouring deionized (DI) water into sample containers and preserving. The rinsate (equipment) blanks, collected for groundwater quality sample analysis, consisted of sampling DI water after being processed through decontaminated sampling equipment (including filtration equipment as appropriate), collected into sample containers and preserved. The field quality control samples are identified with a sequential sample code and are submitted blind to the laboratory.

The data quality for the monitoring conducted during 2019 was evaluated using standard laboratory QC samples and field duplicates, blanks, and rinsate blanks. Field duplicates were collected at surface water sites SW-1, SW-2, SW-4, SW-6, SW-14, SW-17, and USGS-SC1; springs DS-1, SP-4, SP-6, SP-7, SP-11, SP-12 and SP-10; and wells MW-20, MW-3, MW-6A, and PW-8. Qualifiers applied to data as a result of the validation process are described in the quarterly QA/QC reviews included in Appendix E. The QA/QC data did not indicate any systematic data quality issues for 2019. A summary of field QC sample quality control limit exceedances are provided below.

First Quarter Monitoring:

- Field blank and duplicate control limits were not exceeded in January.
- One field blank for spring monitoring reported concentrations for dissolved iron and strontium above the PRDL in February.
- Field duplicate control limits were not exceeded in February and March.
- One field blank for spring monitoring reported concentrations for dissolved nickel above the PRDL in March and six samples were qualified.

Second Quarter Monitoring:

- Field blank control limits were not exceeded in April.
- Field duplicate control limits were exceeded for TDS and total recoverable iron in a sample collected at SW-1 in April and 21 samples were qualified.
- Field duplicate control limits were not exceeded in May.
- One field blank for surface water monitoring reported concentrations for dissolved iron, strontium, and zinc above the PRDL in May and seven samples were qualified.
- Field duplicate control limits were exceeded for total phosphorus and total recoverable zinc in a sample collected at SW-6 in June and nine samples were qualified.

Third Quarter Monitoring:

- Field blank control limits were not exceeded in July.
- The field duplicate sample collected at SW-17 exceeded the control limits for total suspended solids and dissolved aluminum (Appendix E) in July and 20 samples were qualified.
- Field duplicate and blank control limits were not exceeded in August.
- The field rinsate blank sample exceeded the control limits for dissolved strontium (Appendix E) in September.
- Field duplicate control limits were not exceeded in September.

Fourth Quarter Monitoring:

- A field blank sample collected in October exceeded the control limits for hardness and total recoverable iron and strontium (Appendix E); one sample was qualified.
- A field duplicate sample collected at SP-10 exceeded the control limits for total suspended solids. (Appendix E) in October and 18 samples were qualified.
- A field blank sample collected in November exceeded the control limits for hardness and dissolved iron and strontium (Appendix E) and 16 samples were qualified for dissolved iron.
- A field duplicate sample collected at MW-20 exceeded the control limits for total suspended solids. (Appendix E) in November and 42 samples were qualified.
- Field duplicate and field blank control limits were not exceeded in December.

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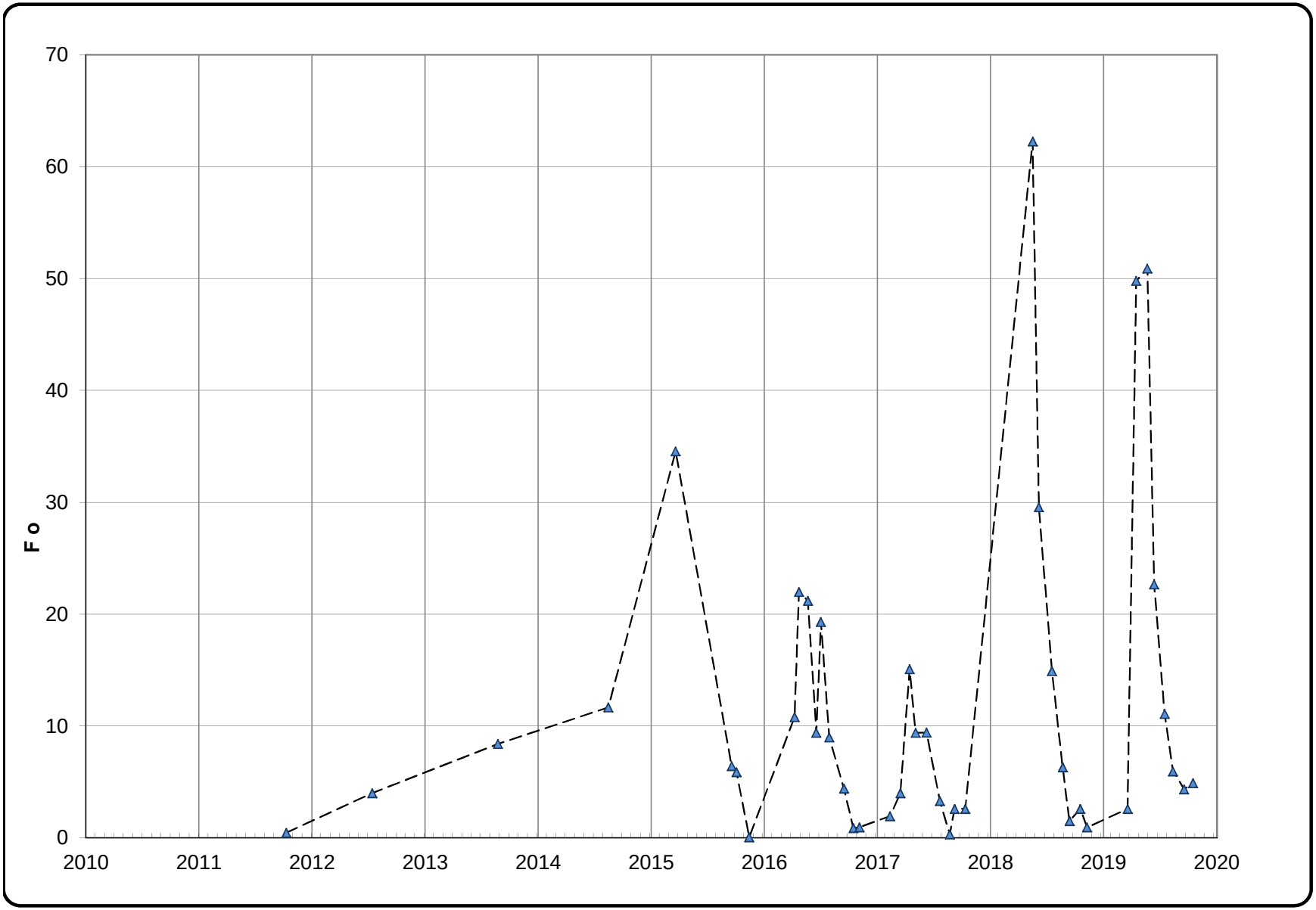
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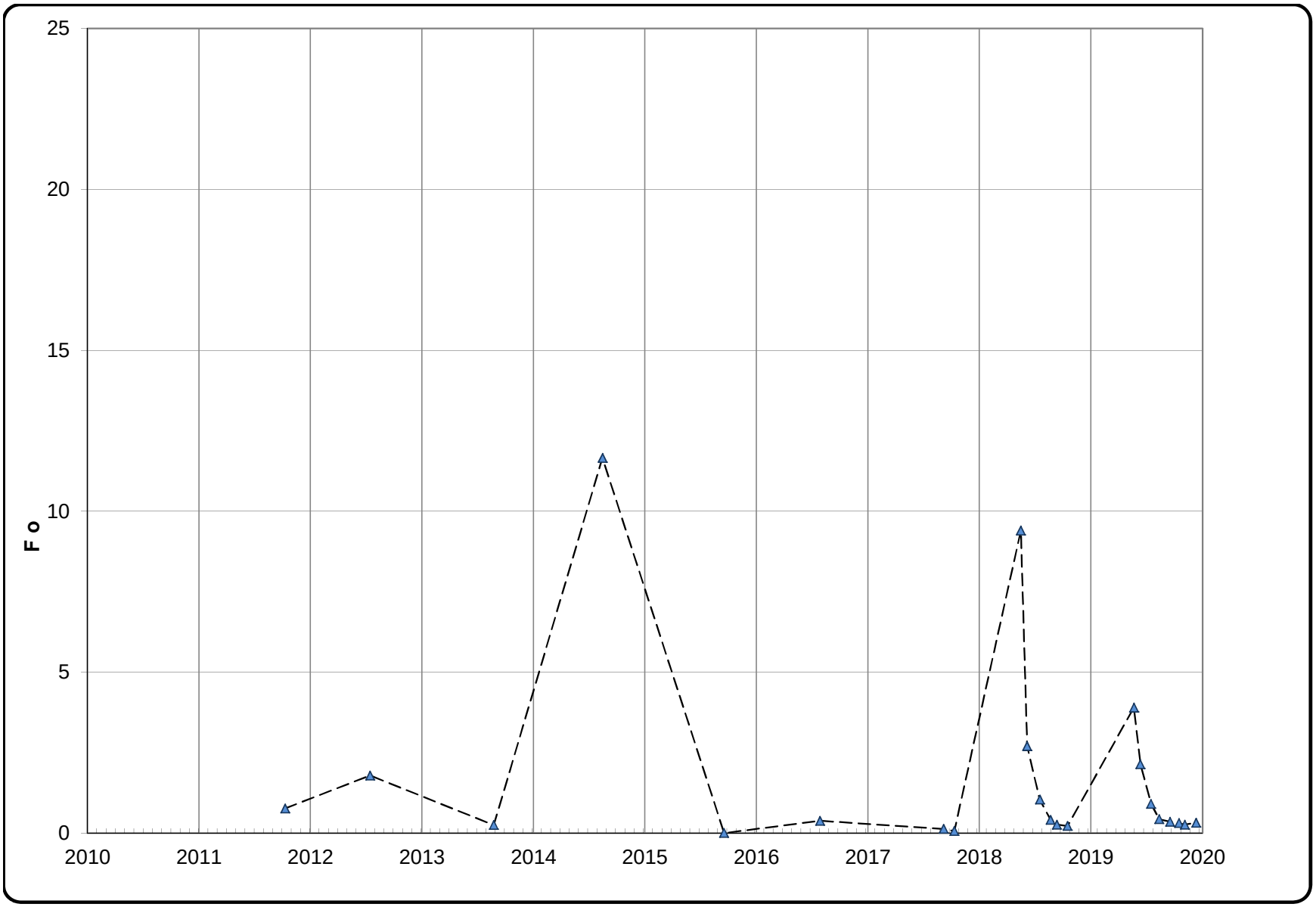
APPENDIX A1

SURFACE WATER AND SPRING FLOW DATA SUMMARY



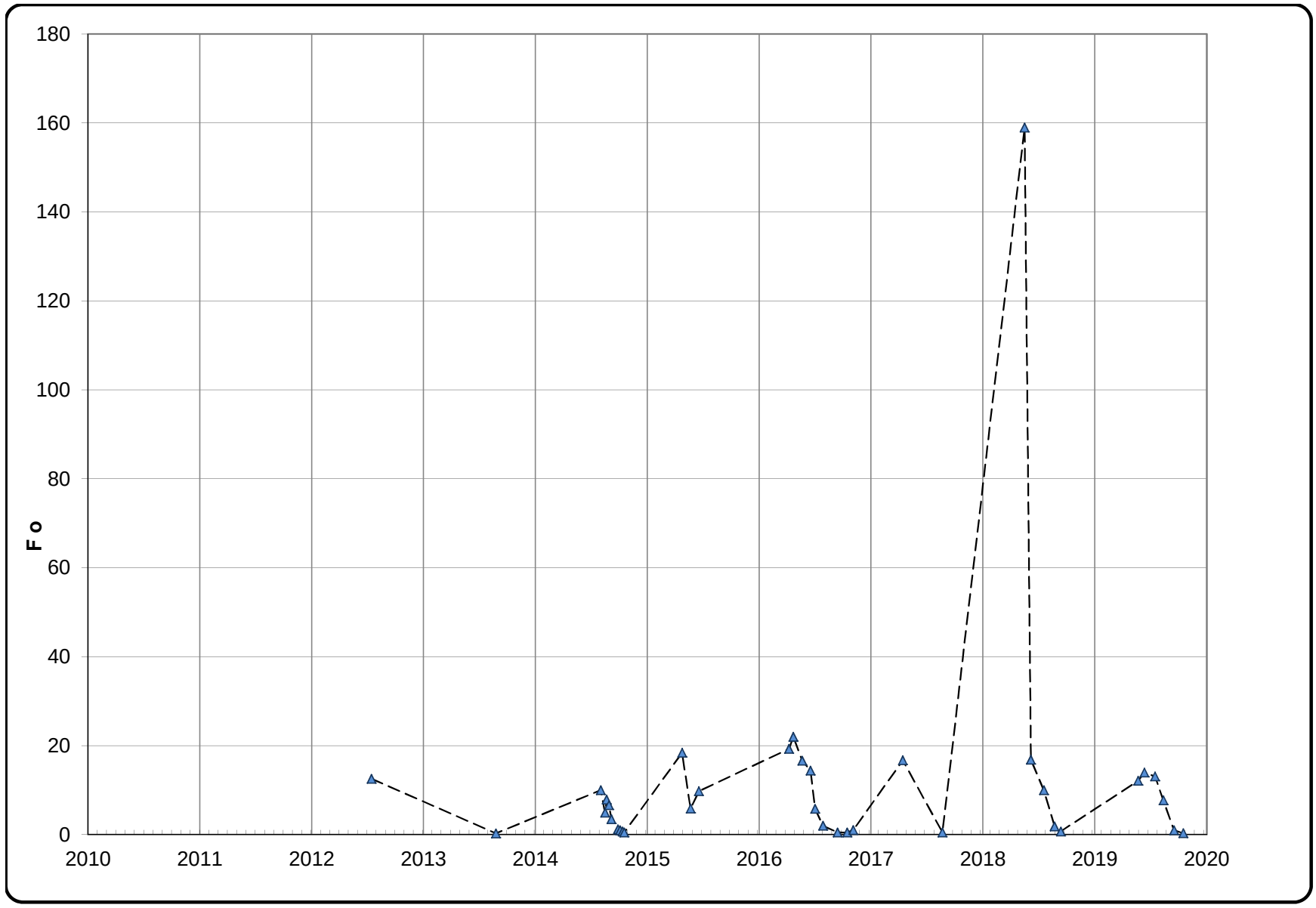
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DS-1 Hydrograph
Black Butte Copper Project
Meagher County, Montana



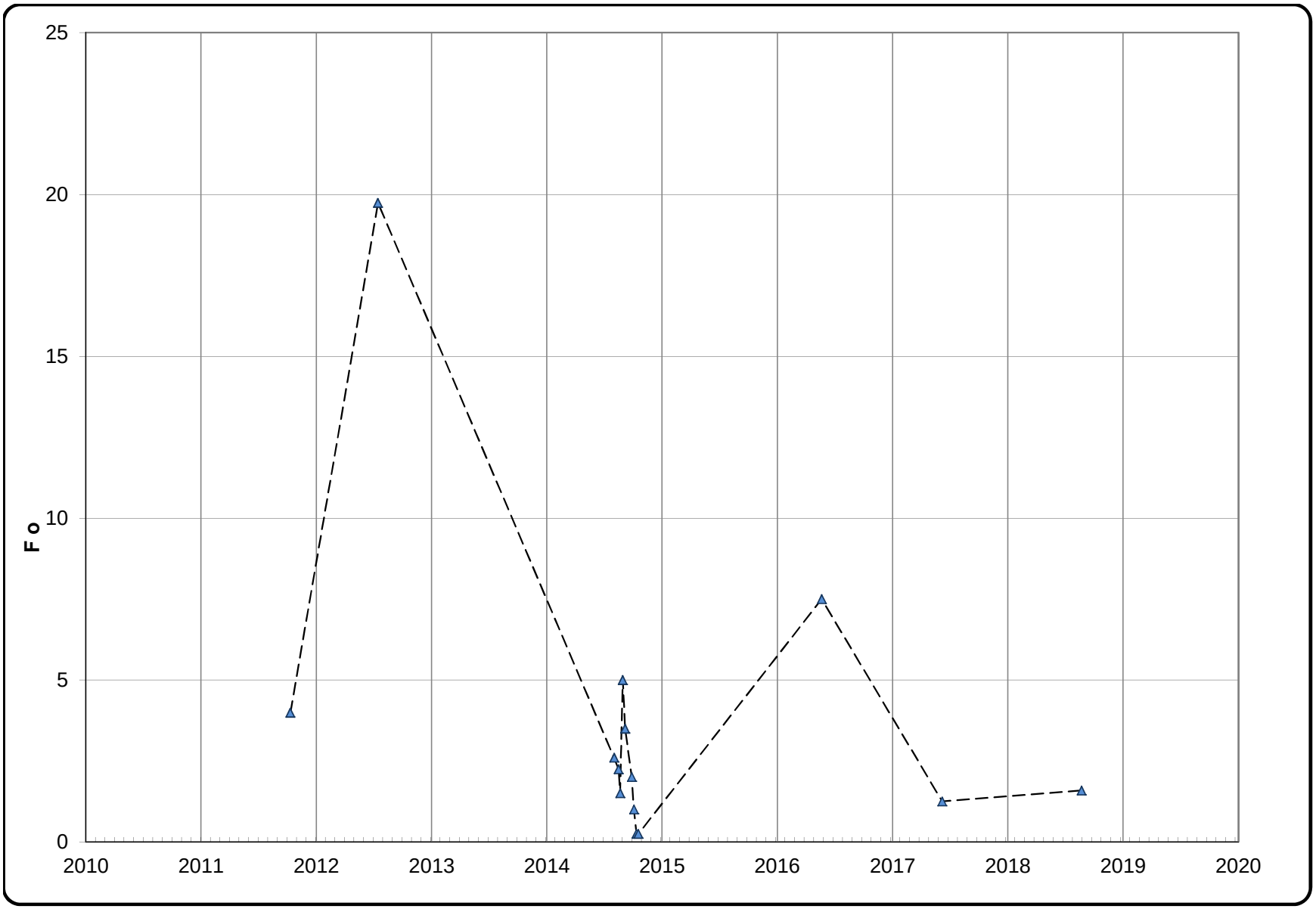
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Meagher County, Montana



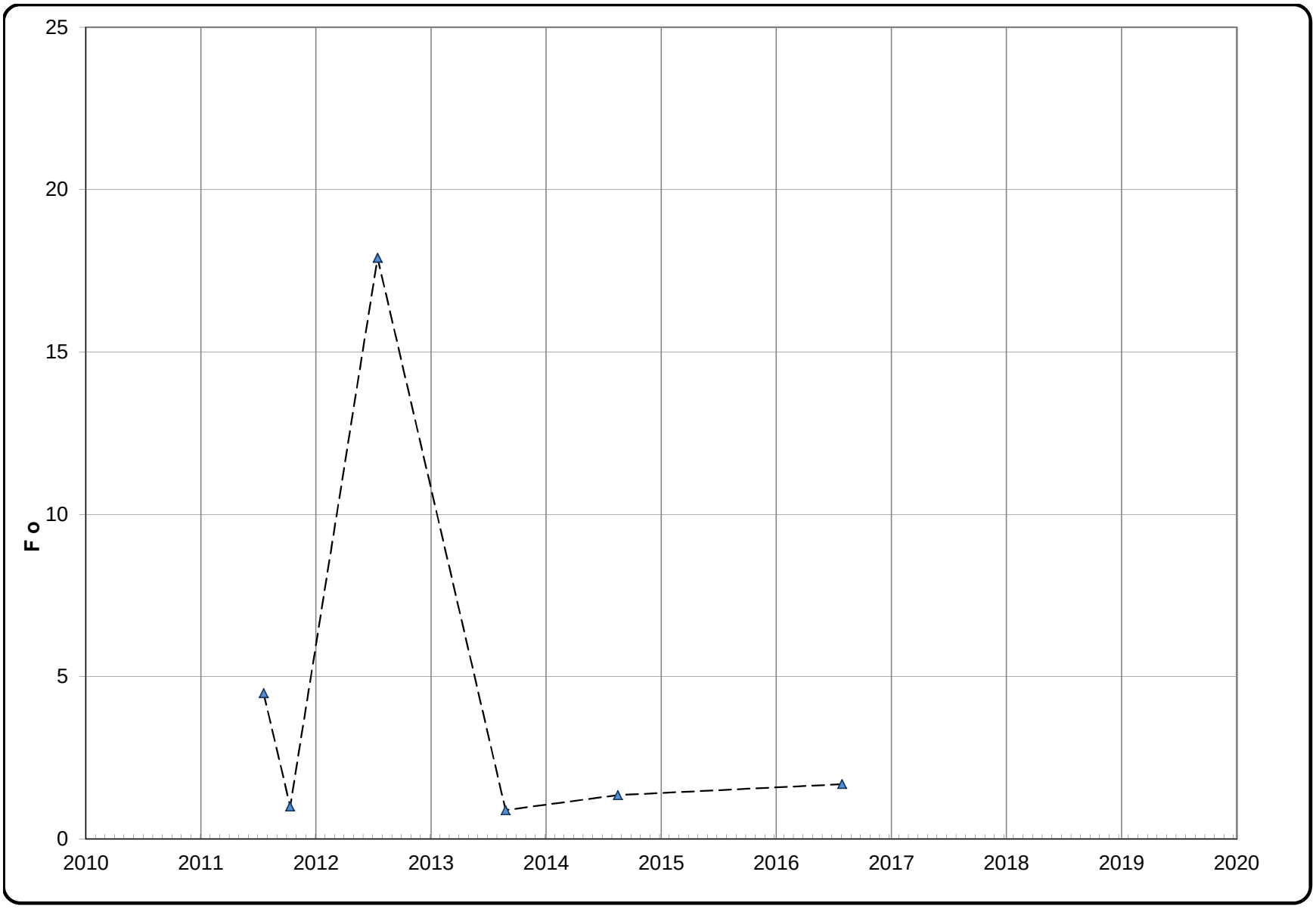
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DS-3 Hydrograph
Black Butte Copper Project
Meagher County, Montana



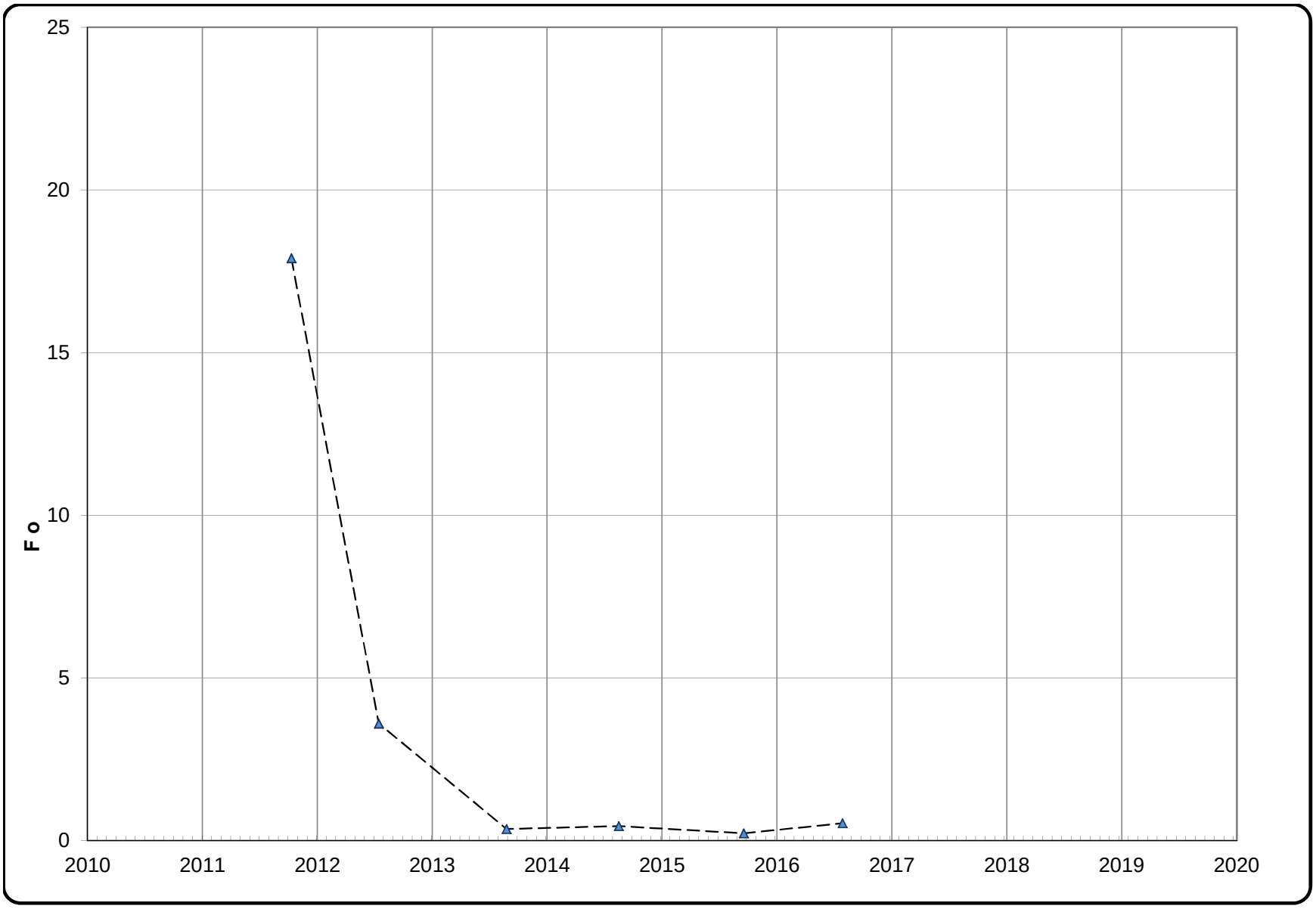
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Meagher County, Montana



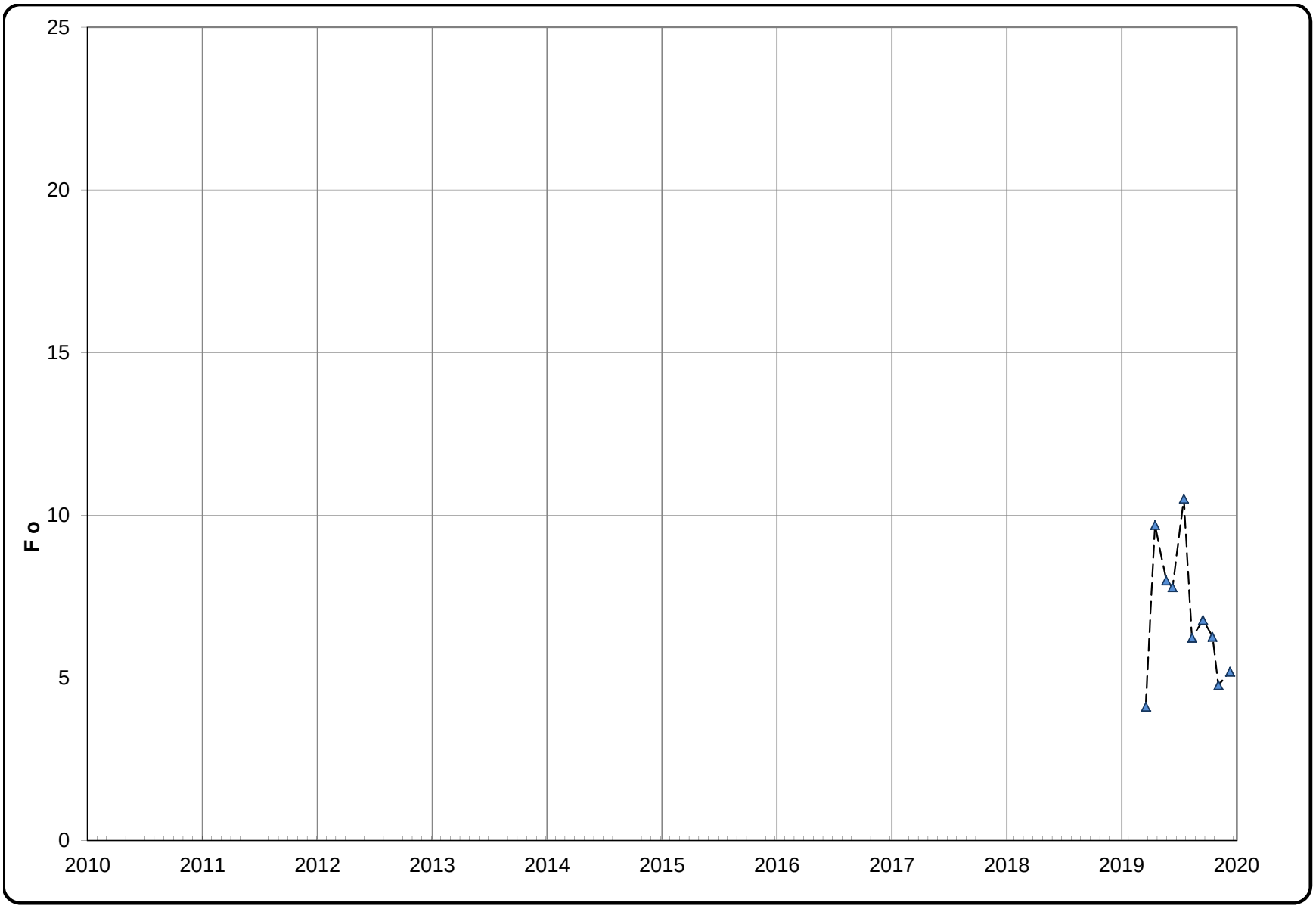
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DS-5 Hydrograph
Black Butte Copper Project
Meagher County, Montana



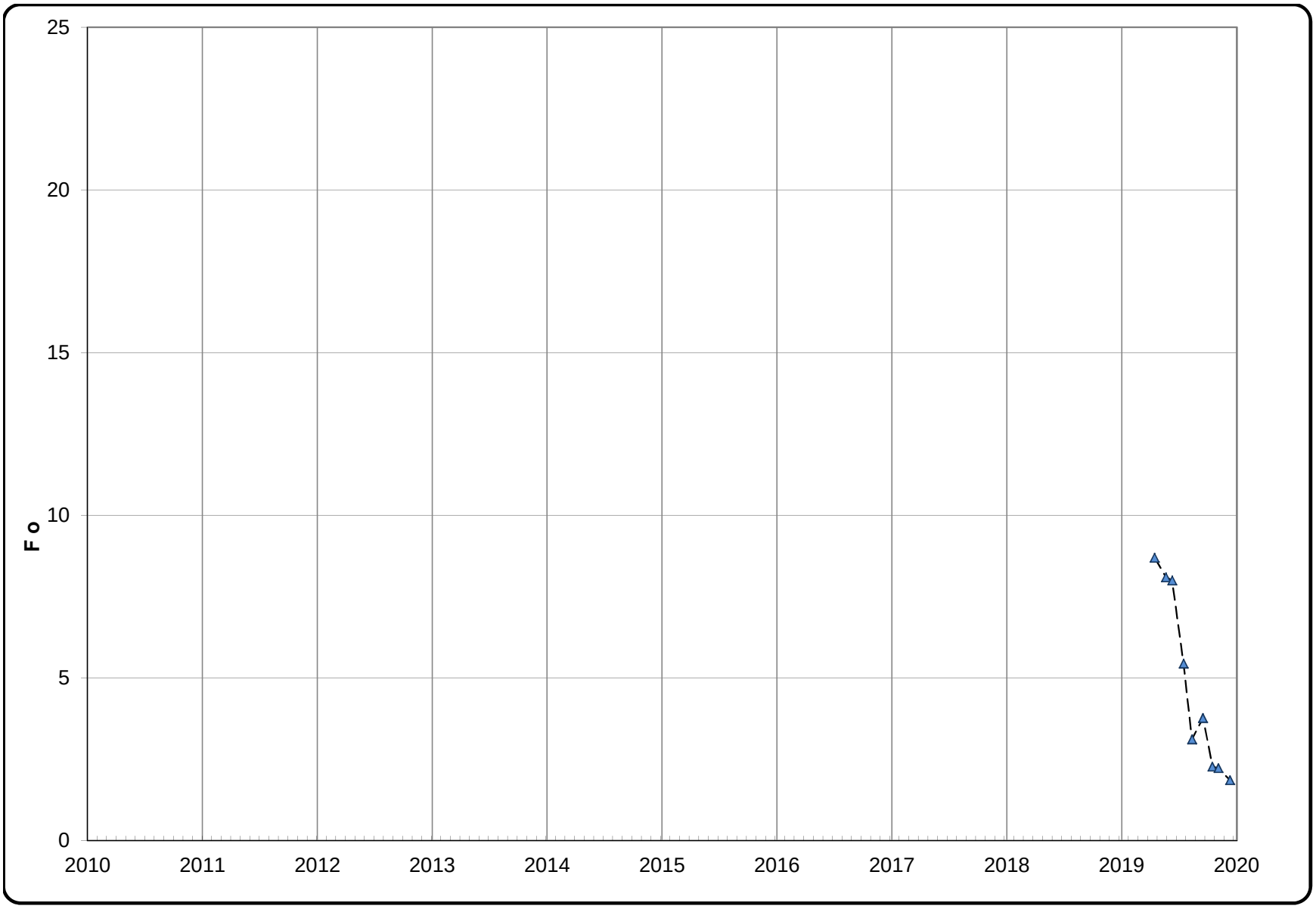
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DS-6 Hydrograph
Black Butte Copper Project
Meagher County, Montana



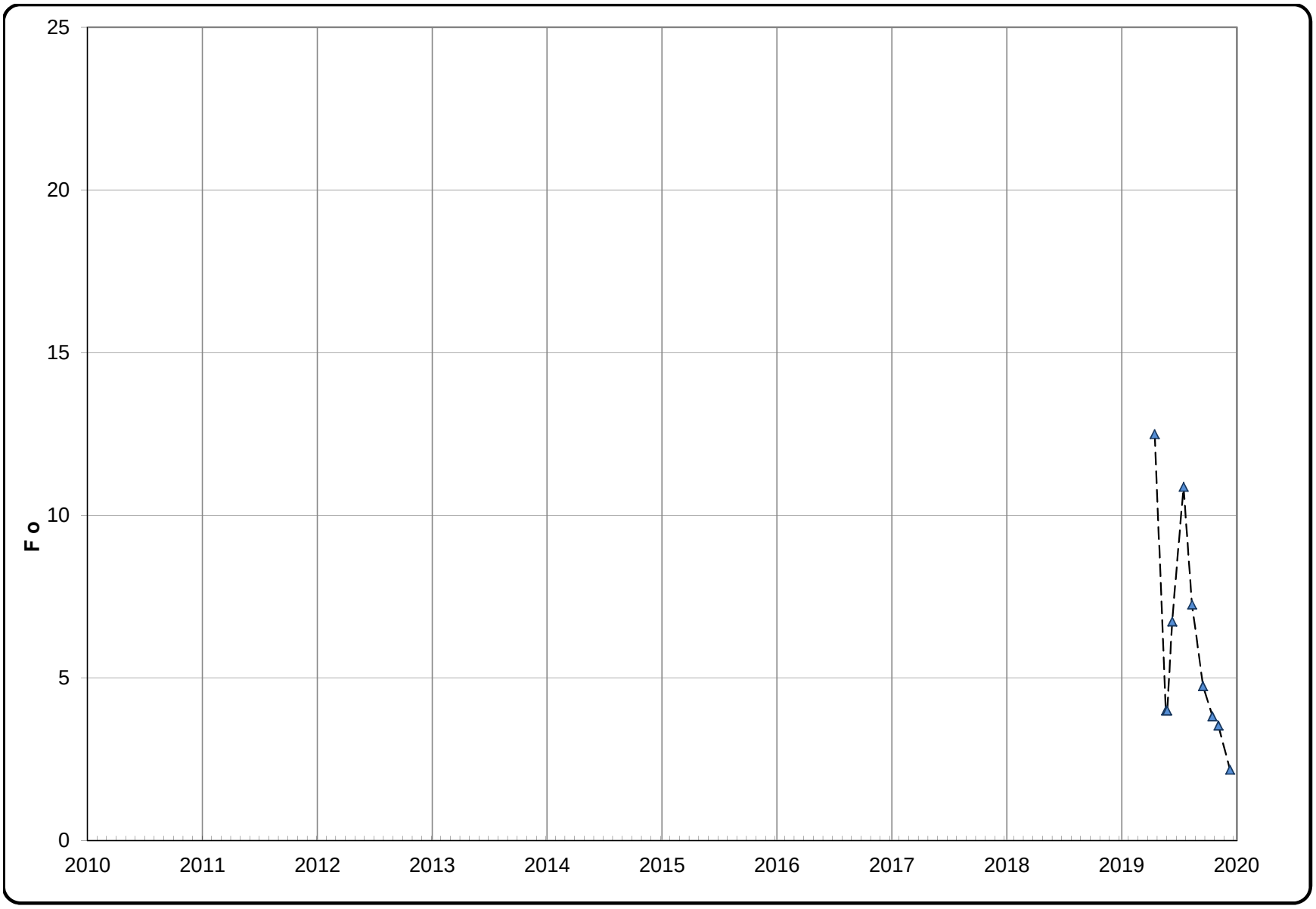
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DS-7 Hydrograph
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Meagher County, Montana



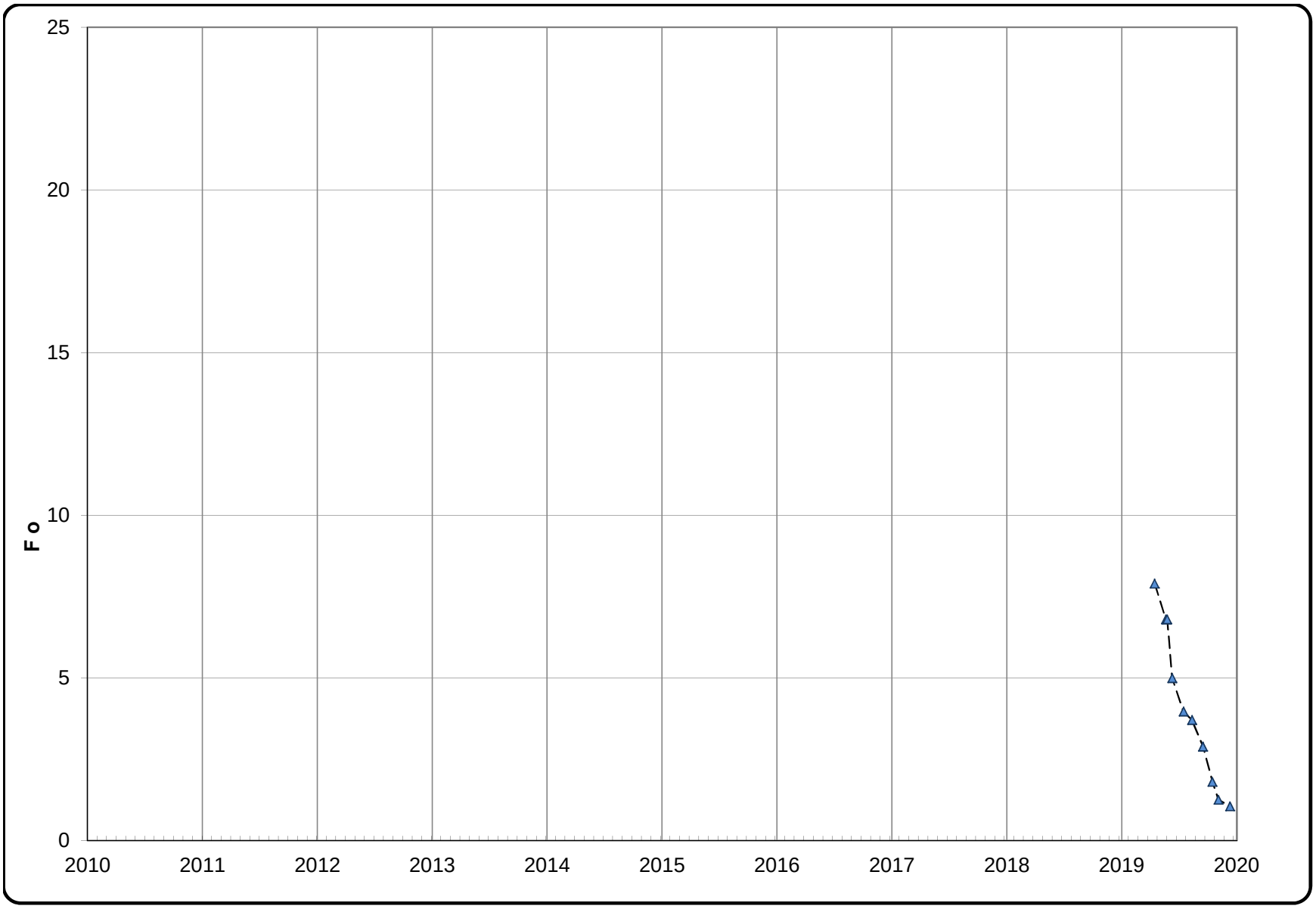
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DS-8 Hydrograph
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Meagher County, Montana



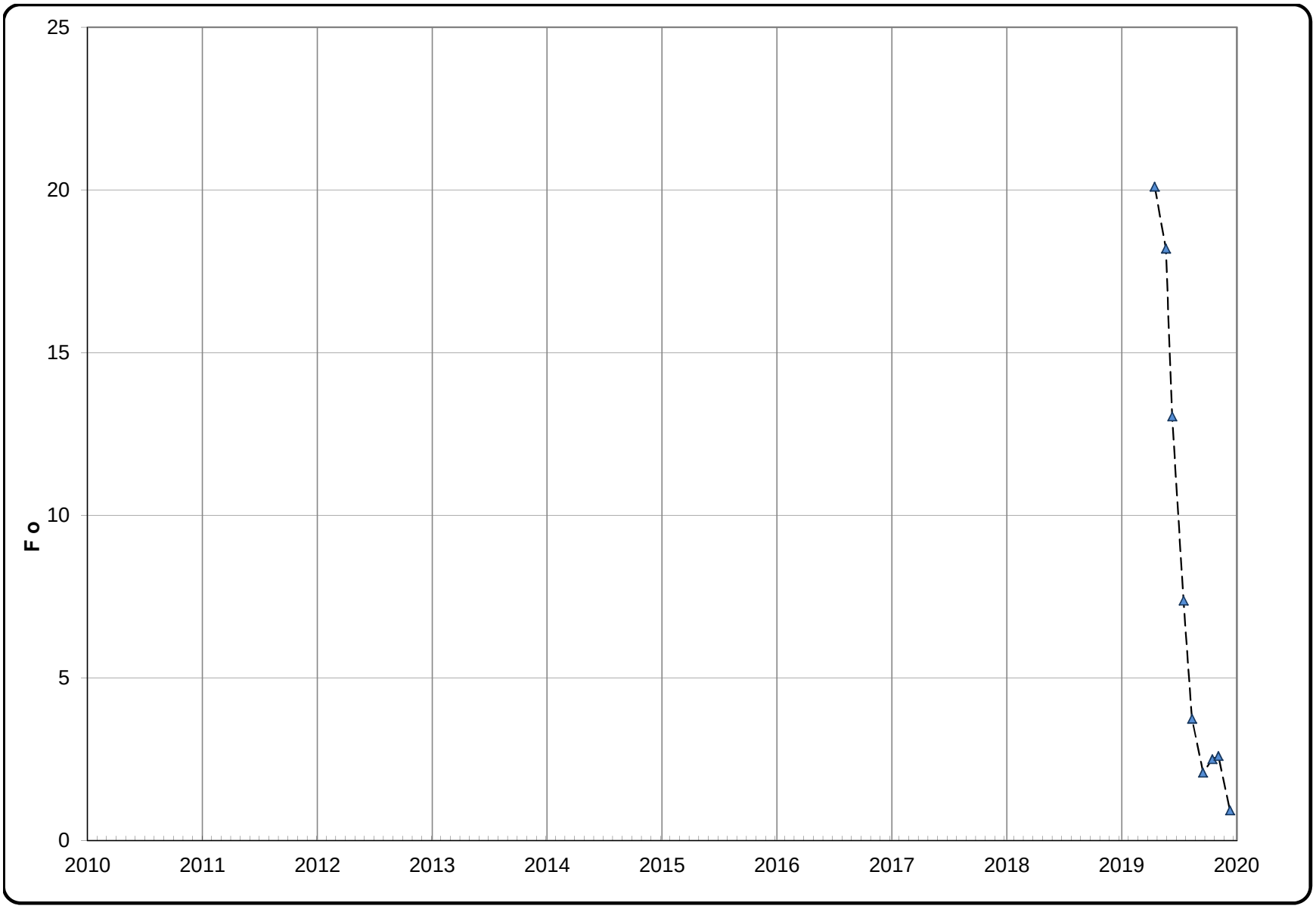
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DS-9 Hydrograph
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Meagher County, Montana



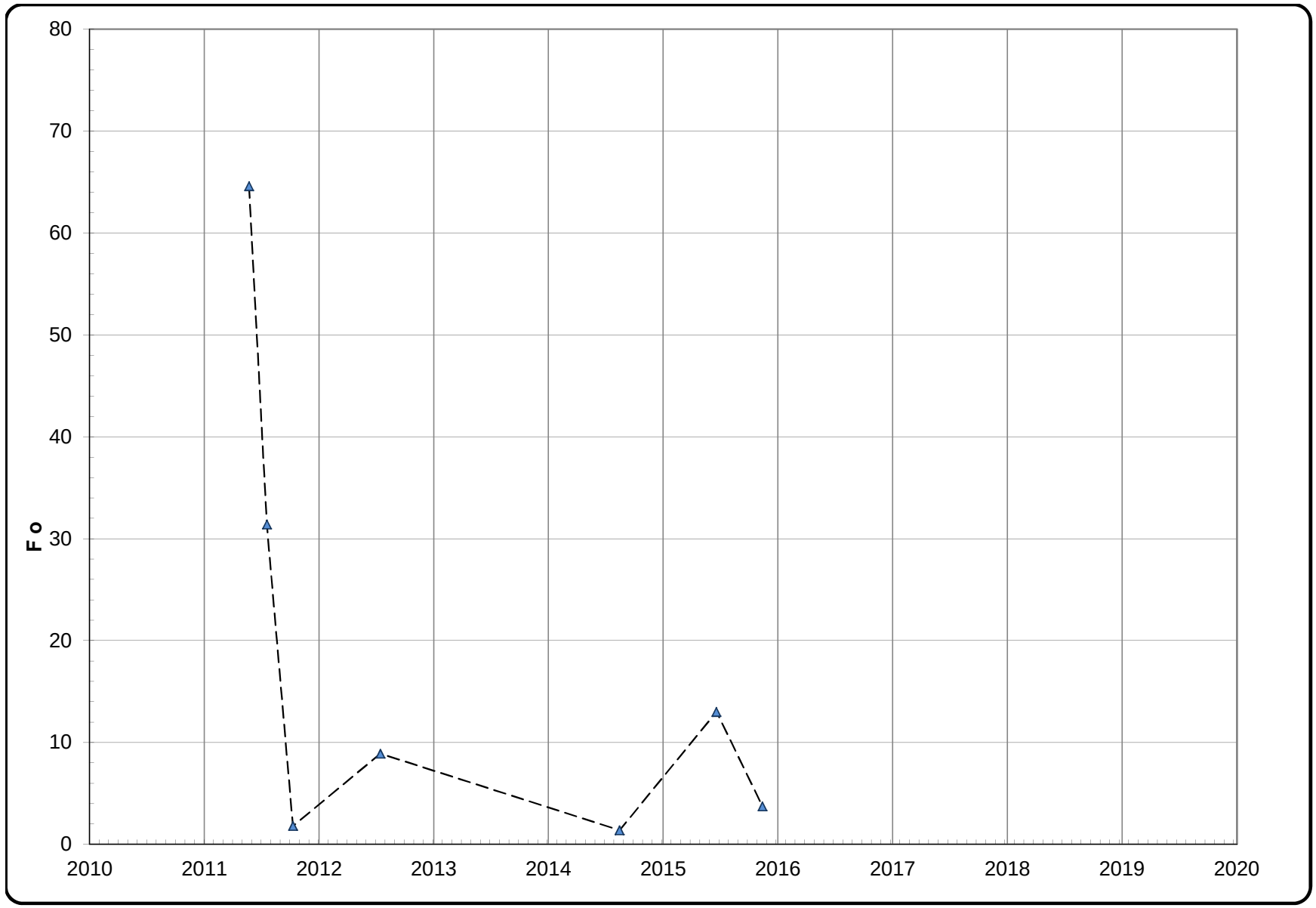
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DS-10 Hydrograph
Black Butte Copper Project
Meagher County, Montana



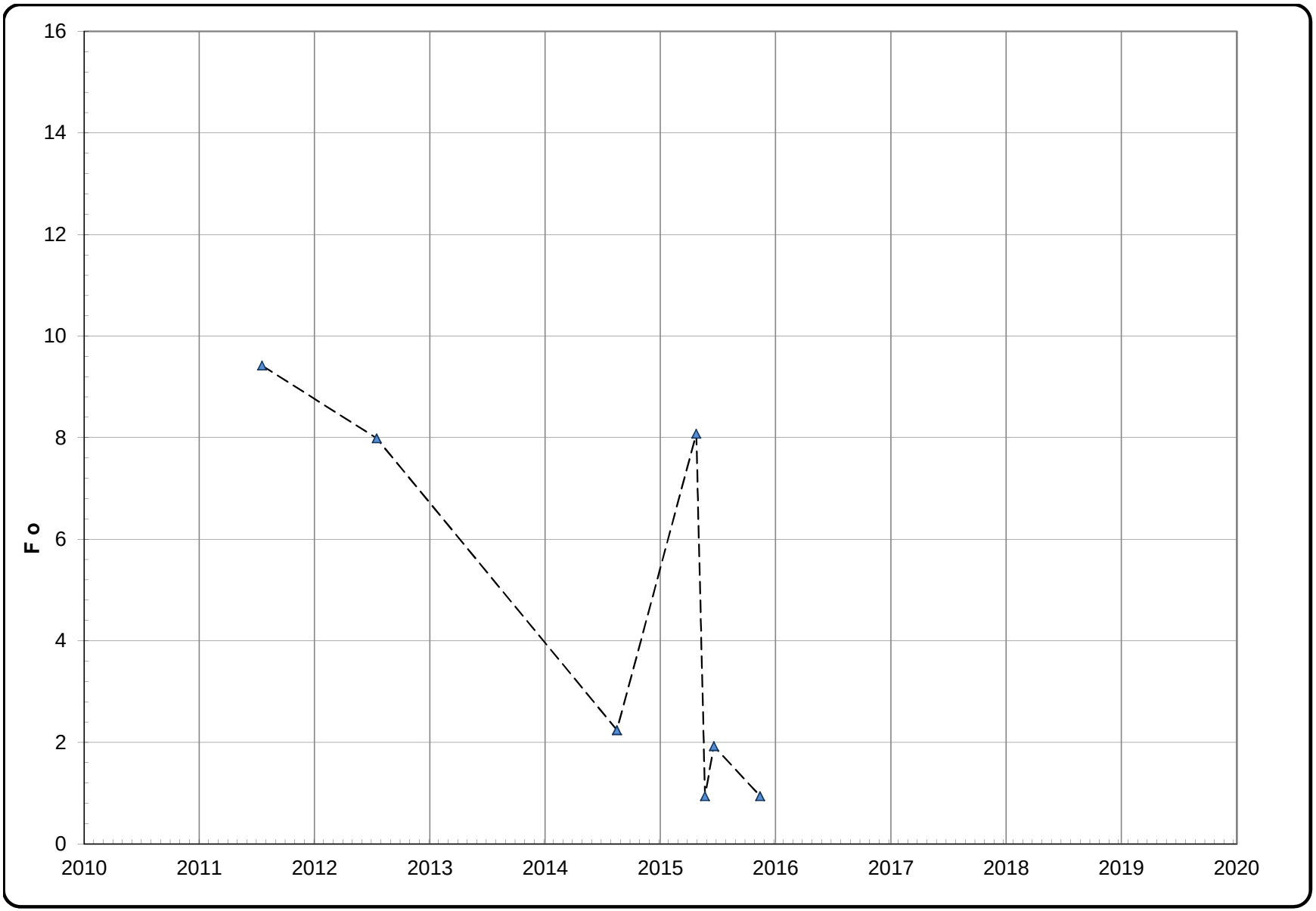
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DS-11 Hydrograph
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Meagher County, Montana



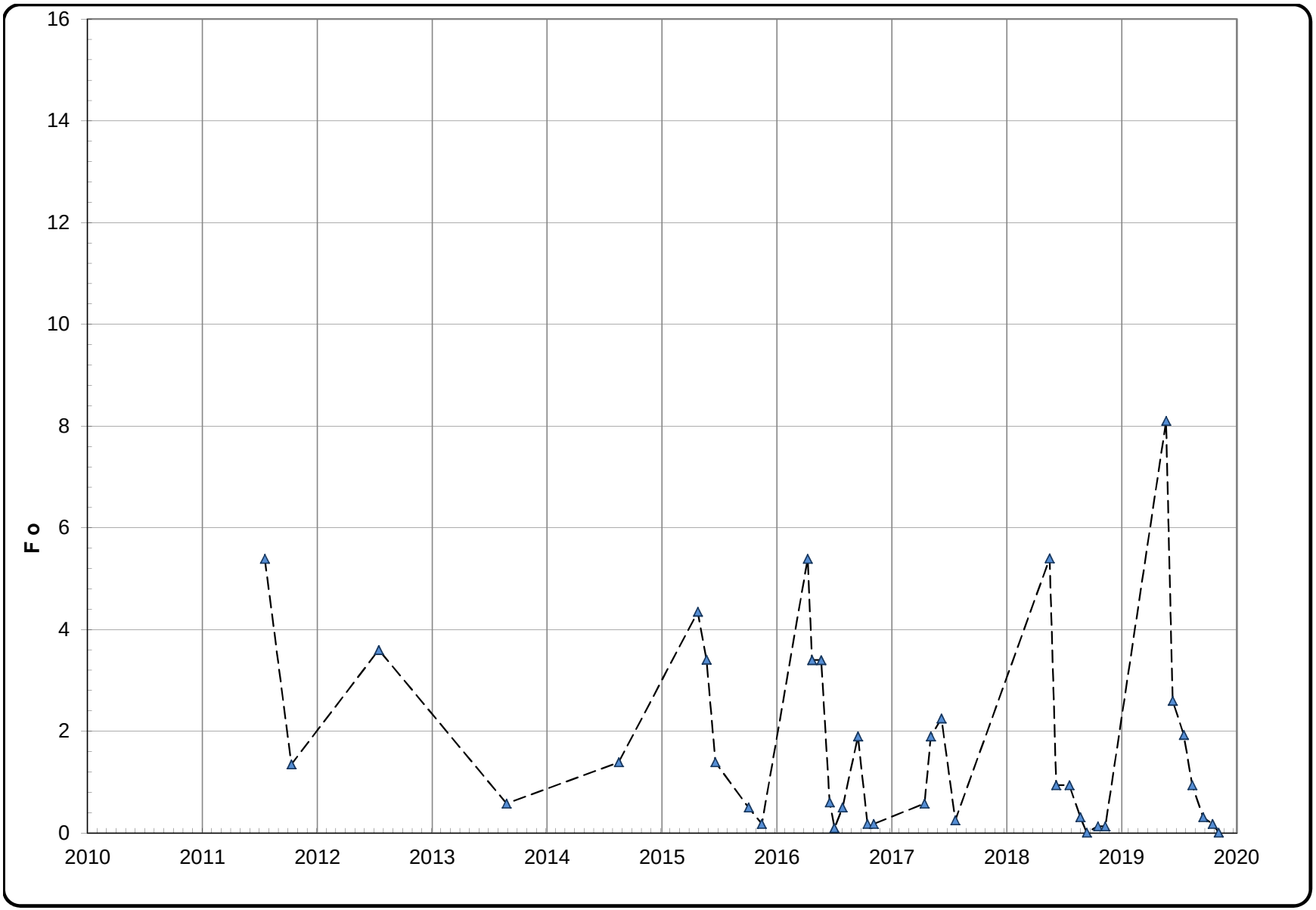
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SP-1 Hydrograph
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Meagher County, Montana



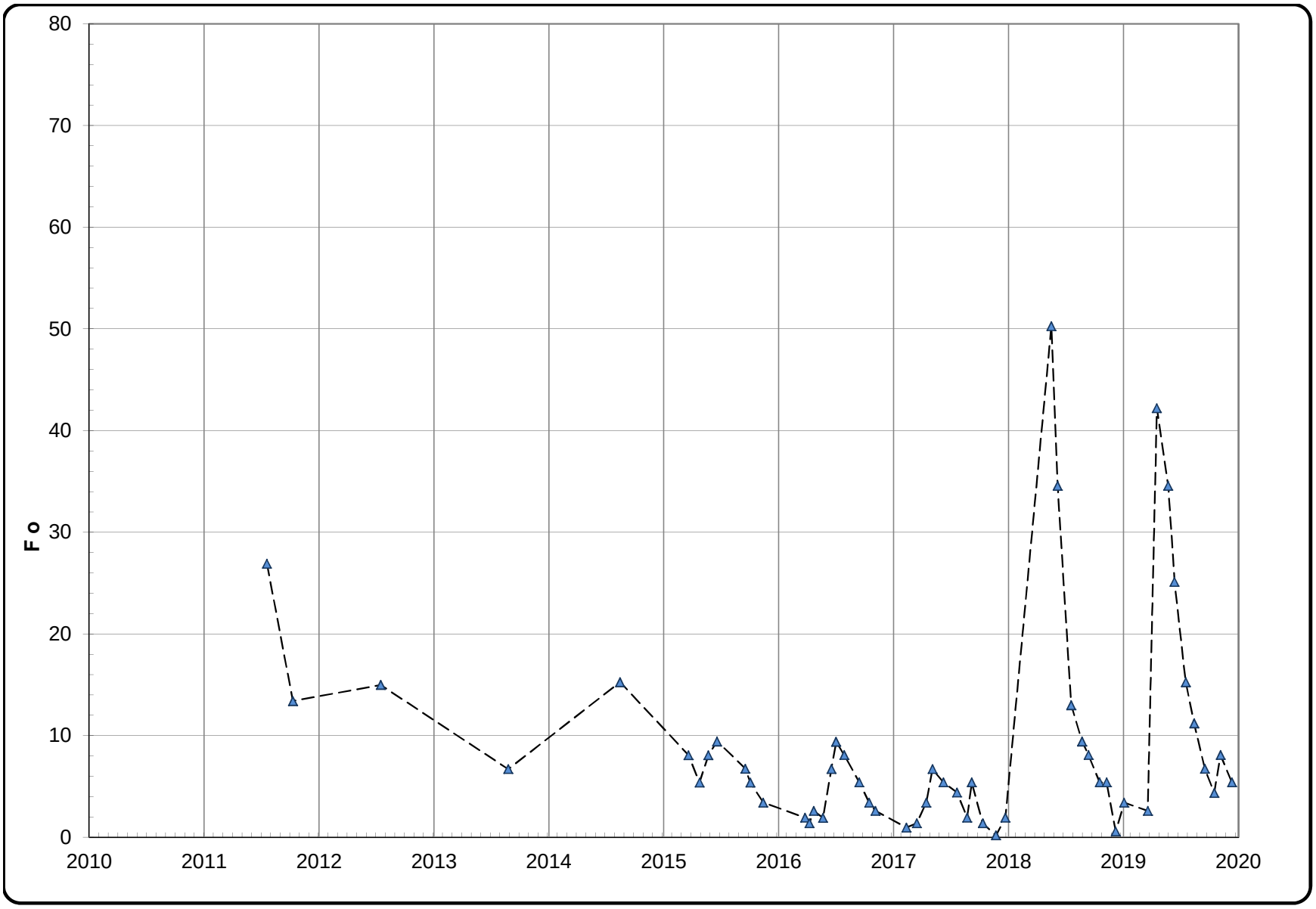
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SP-2 Hydrograph
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Meagher County, Montana



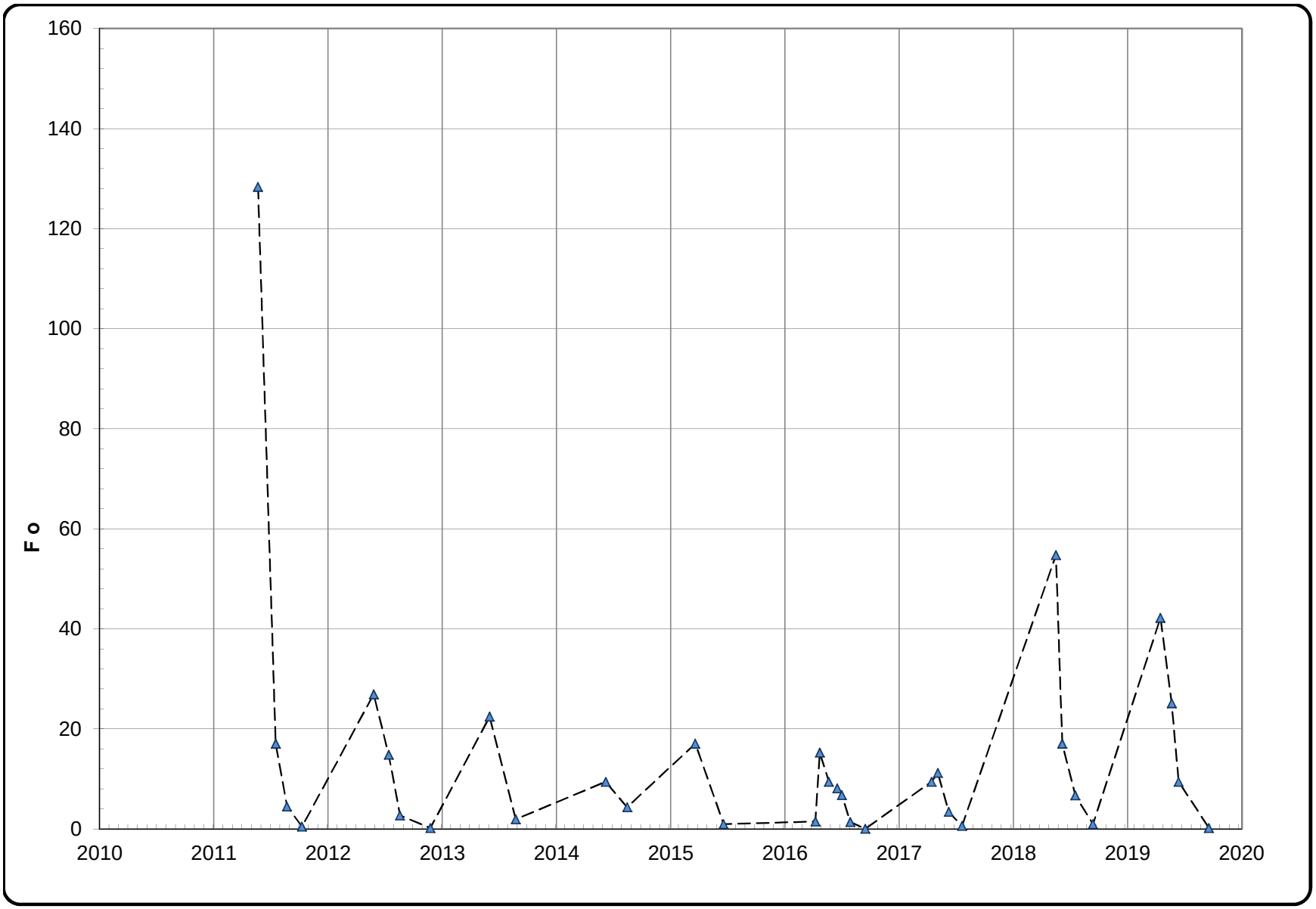
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Meagher County, Montana



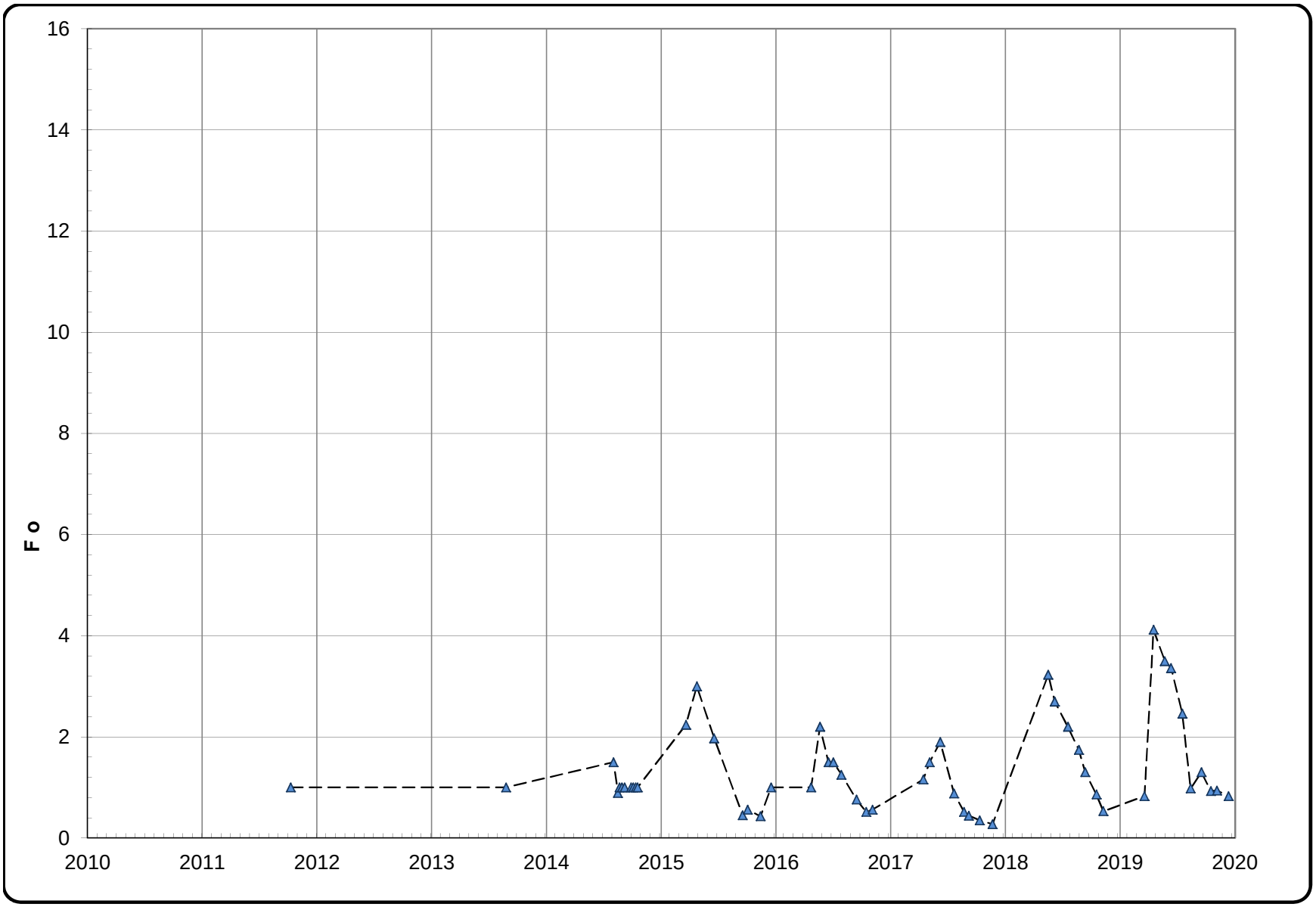
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Meagher County, Montana



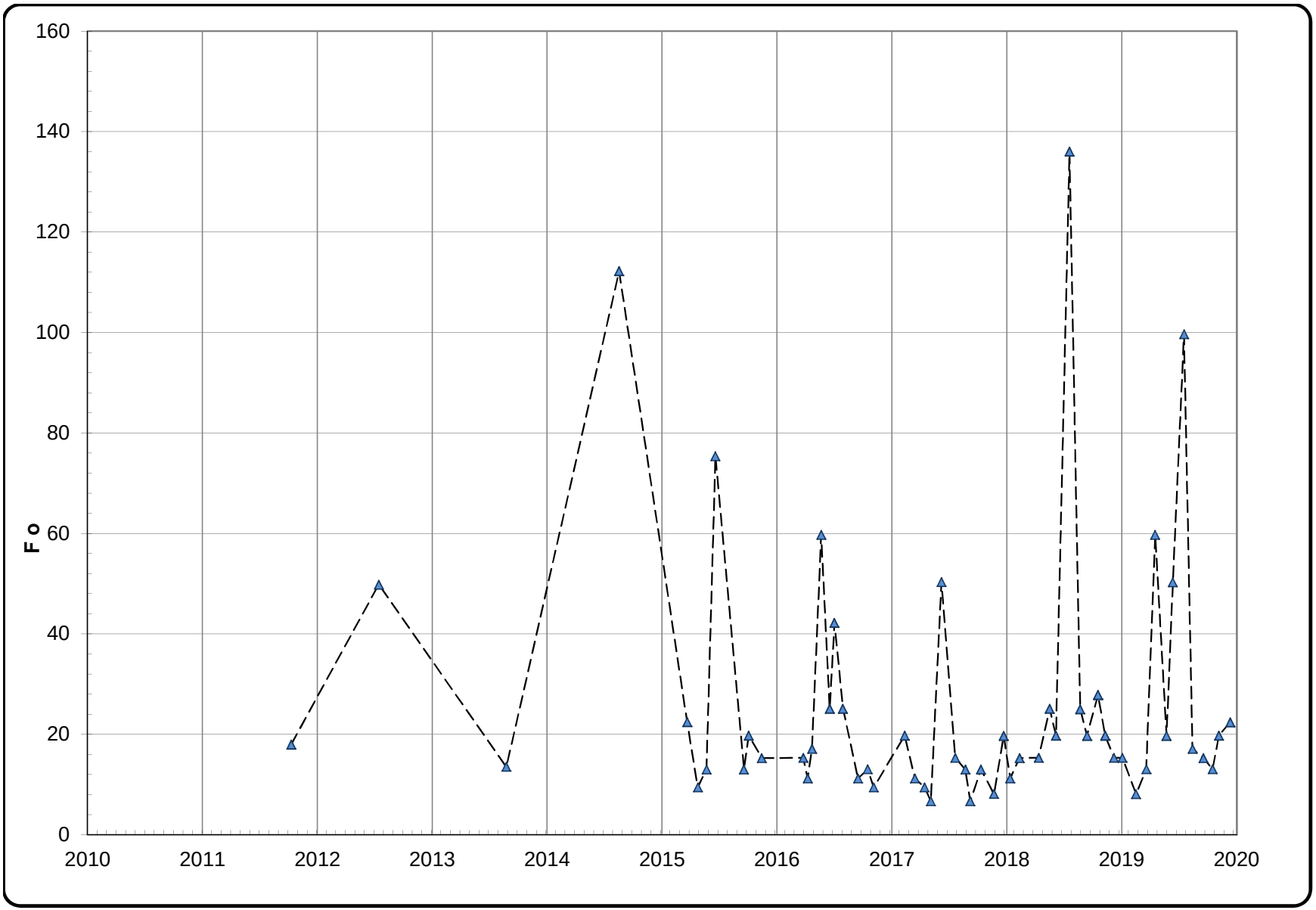
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Meagher County, Montana



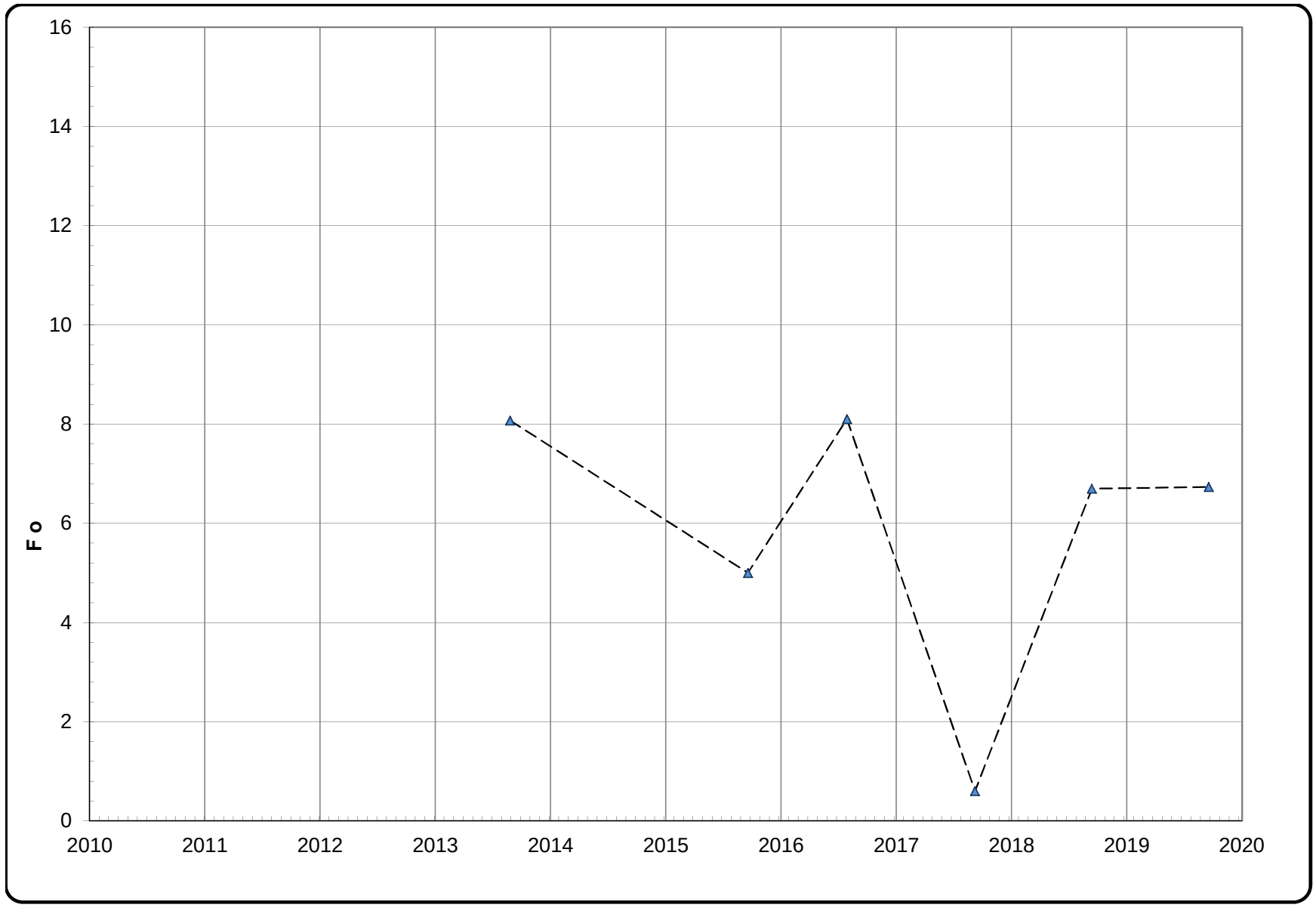
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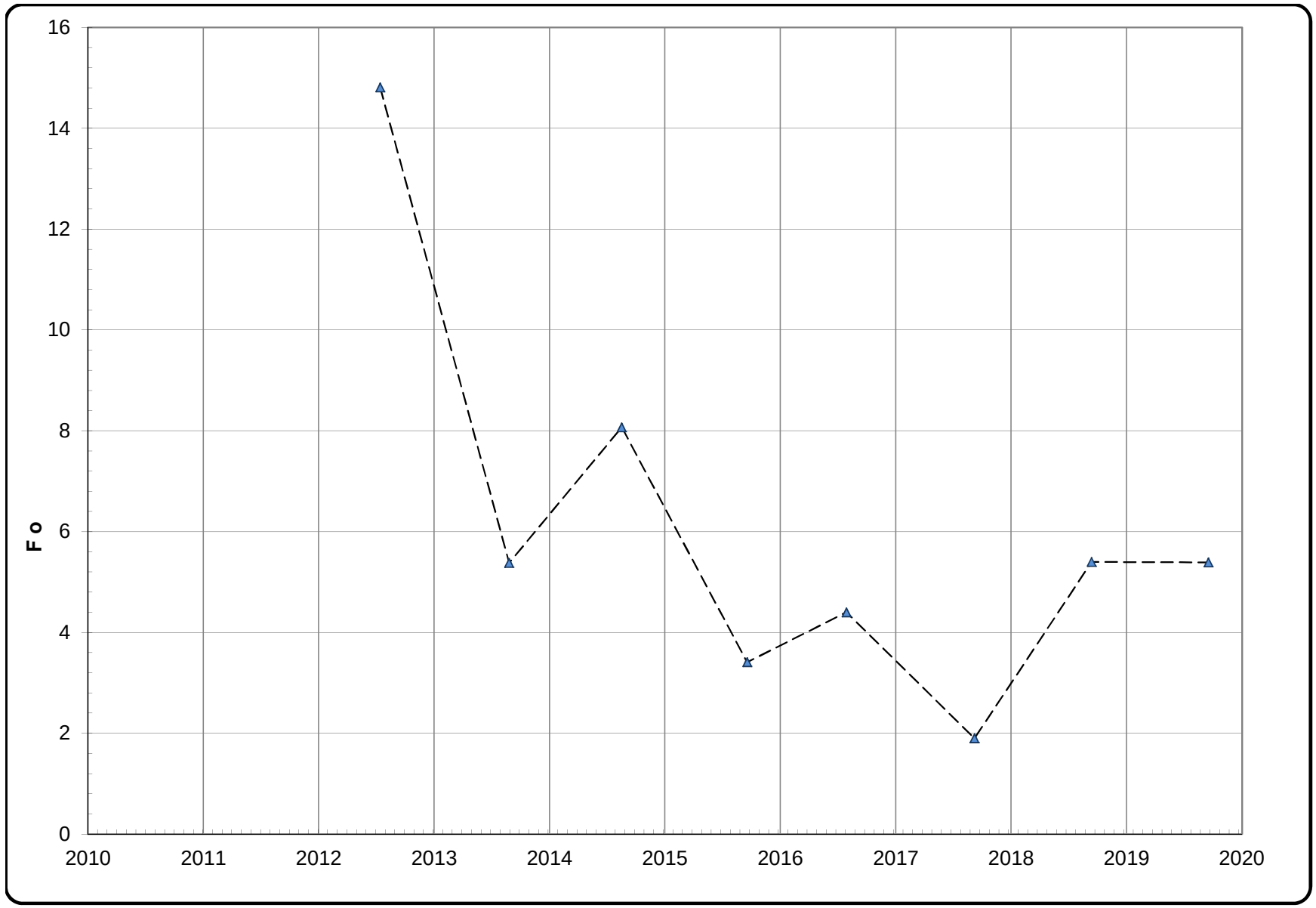
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Meagher County, Montana



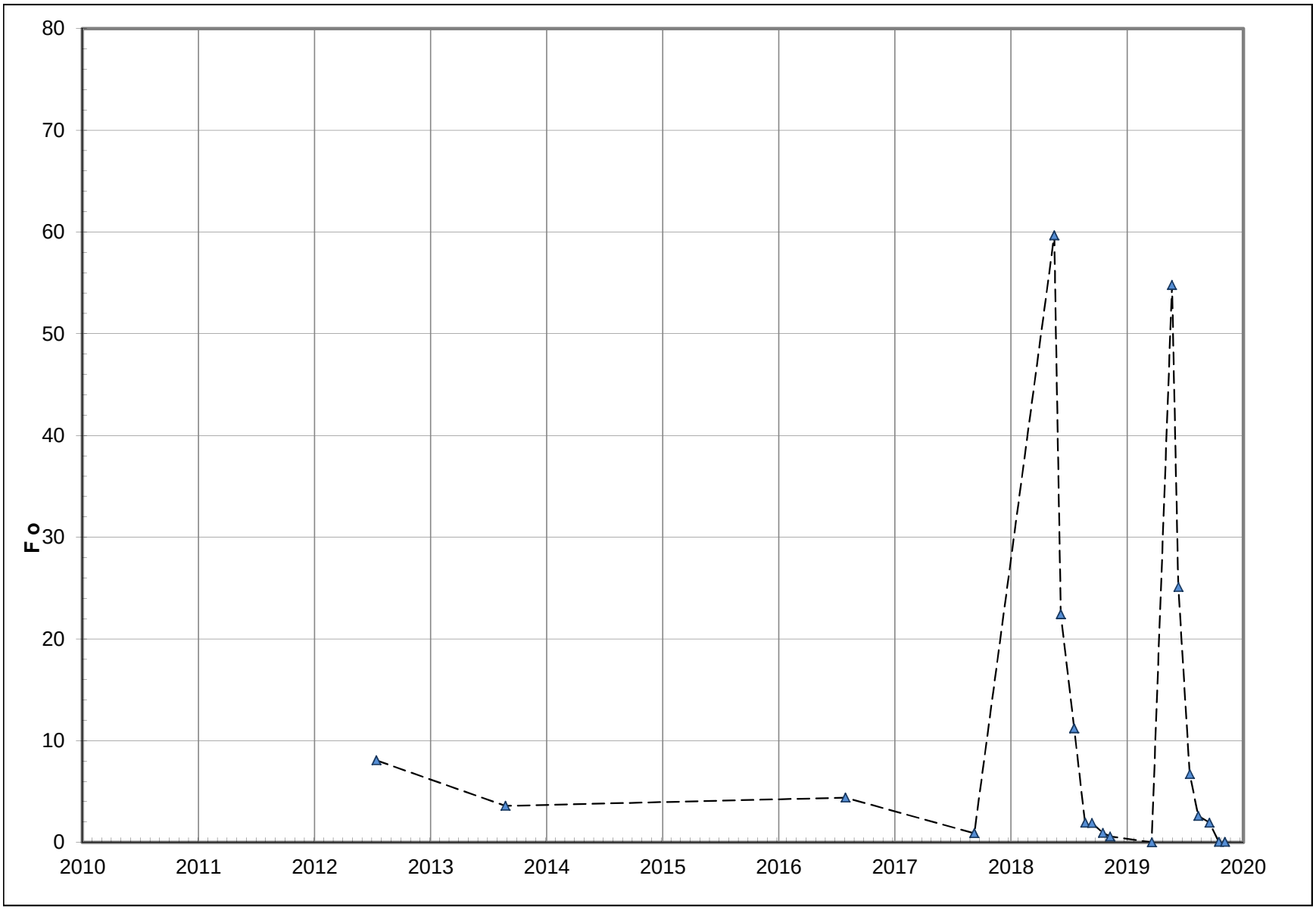
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SP-8 Hydrograph
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Meagher County, Montana



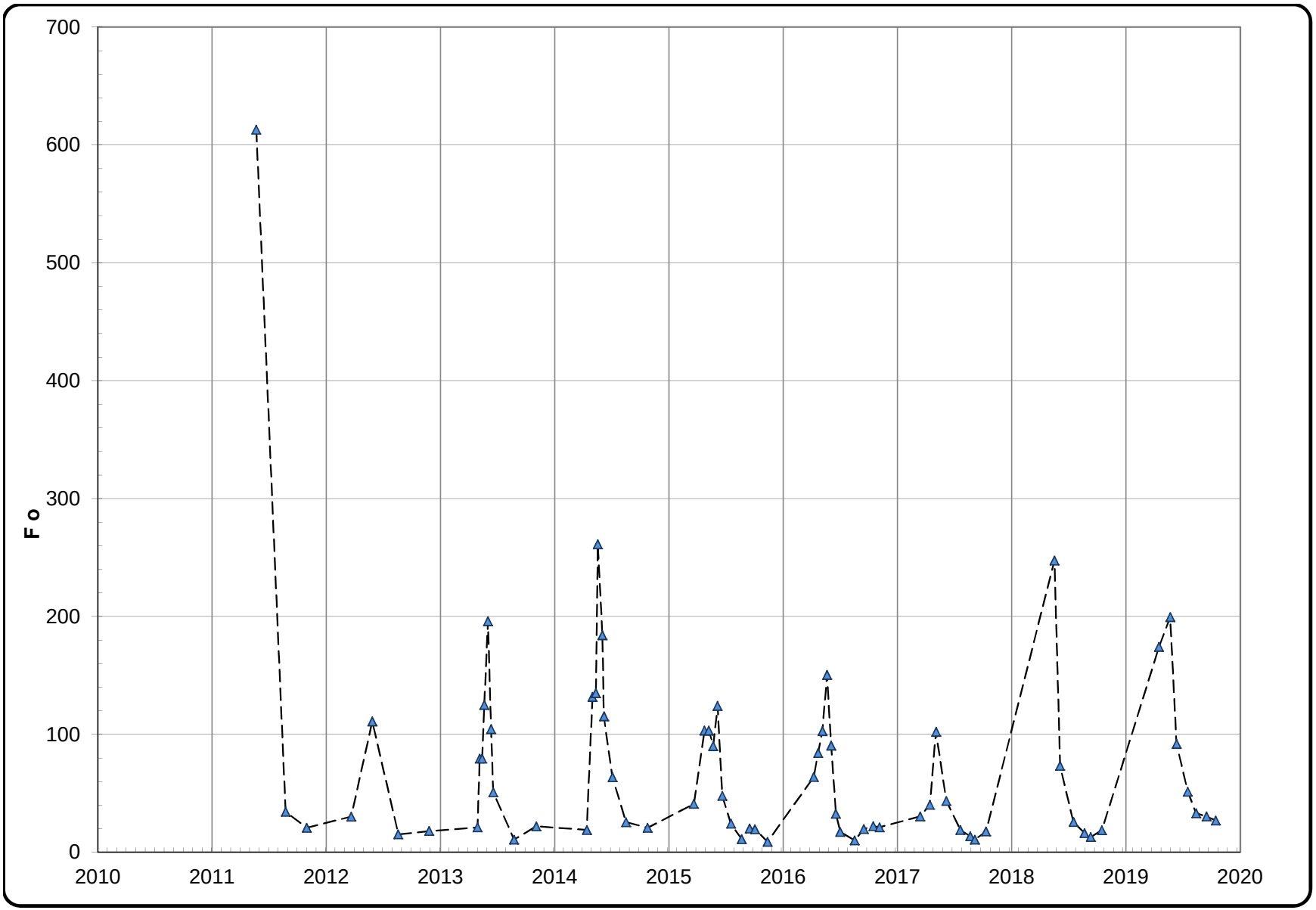
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Meagher County, Montana



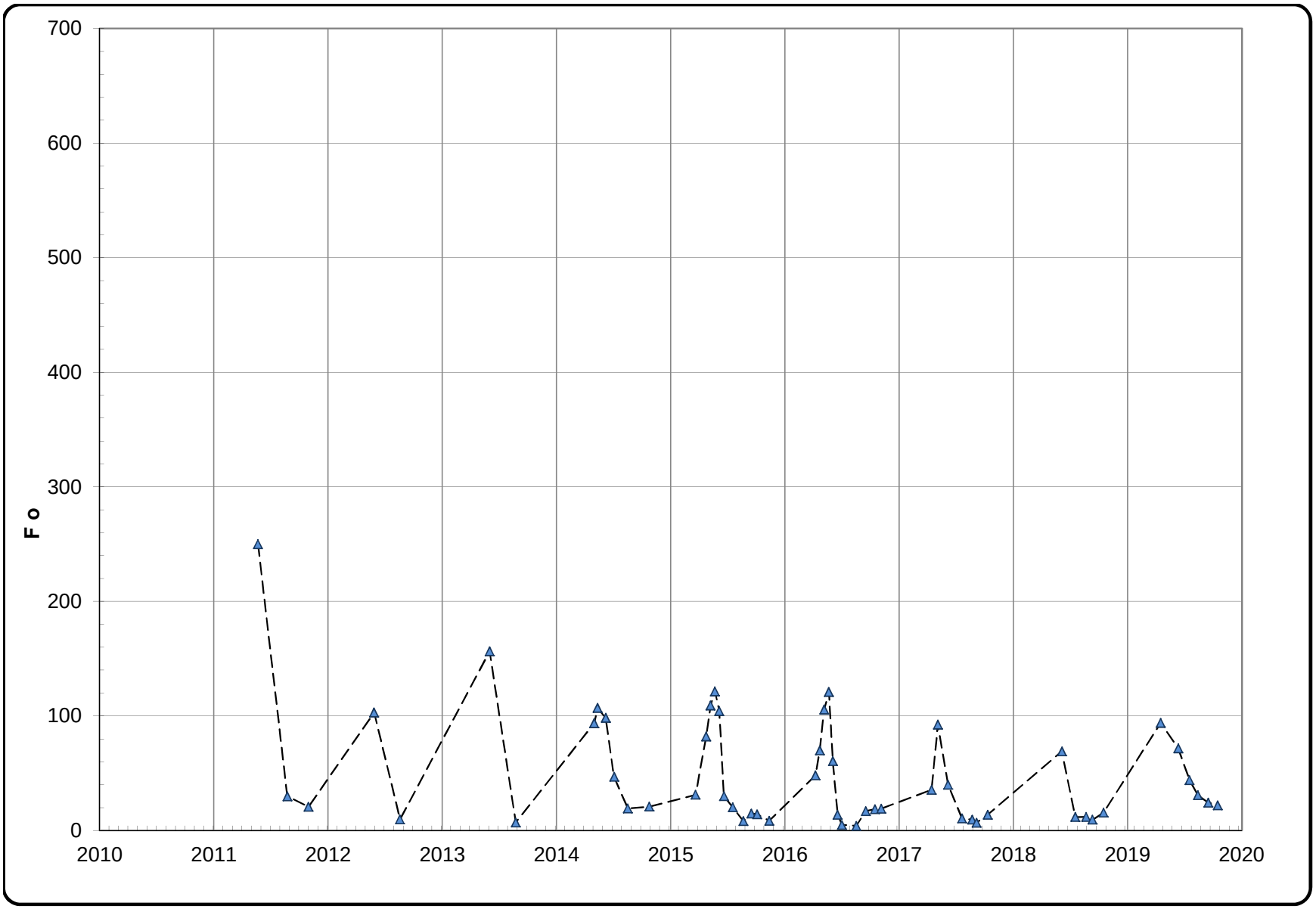
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Meagher County, Montana



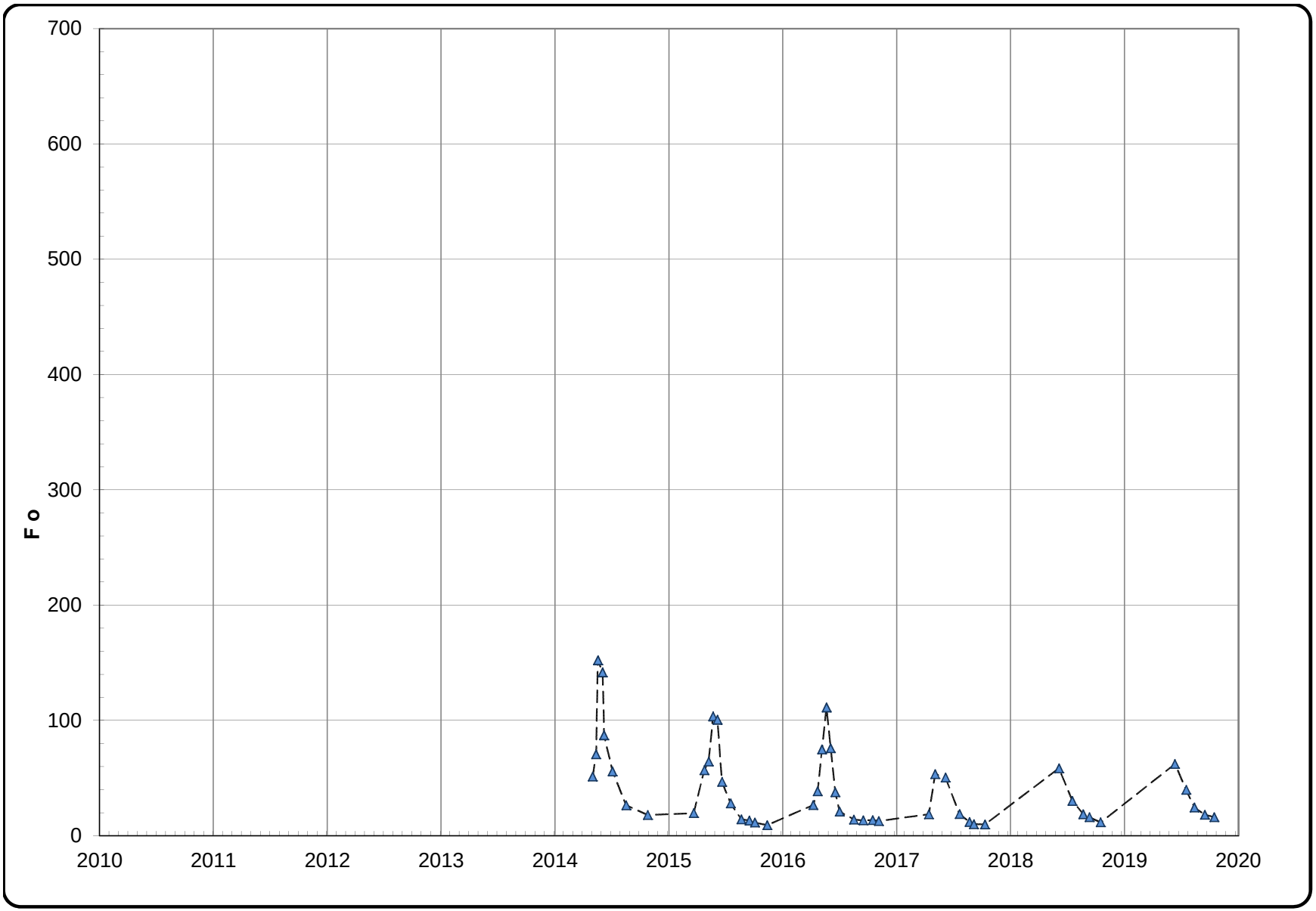
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SW-1 Hydrograph
Black Butte Copper Project
Meagher County, Montana



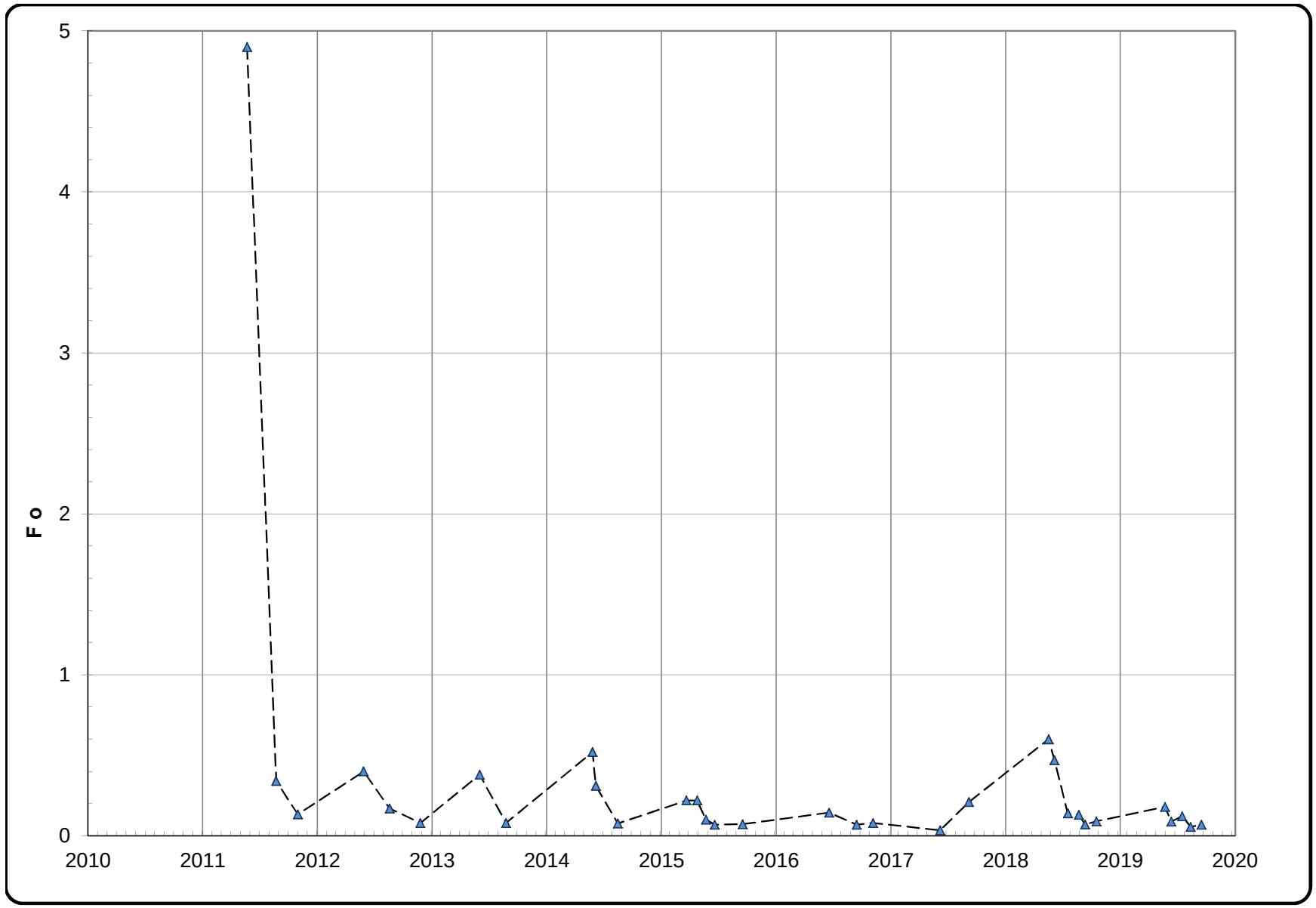
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SW-2 Hydrograph
Black Butte Copper Project
Meagher County, Montana



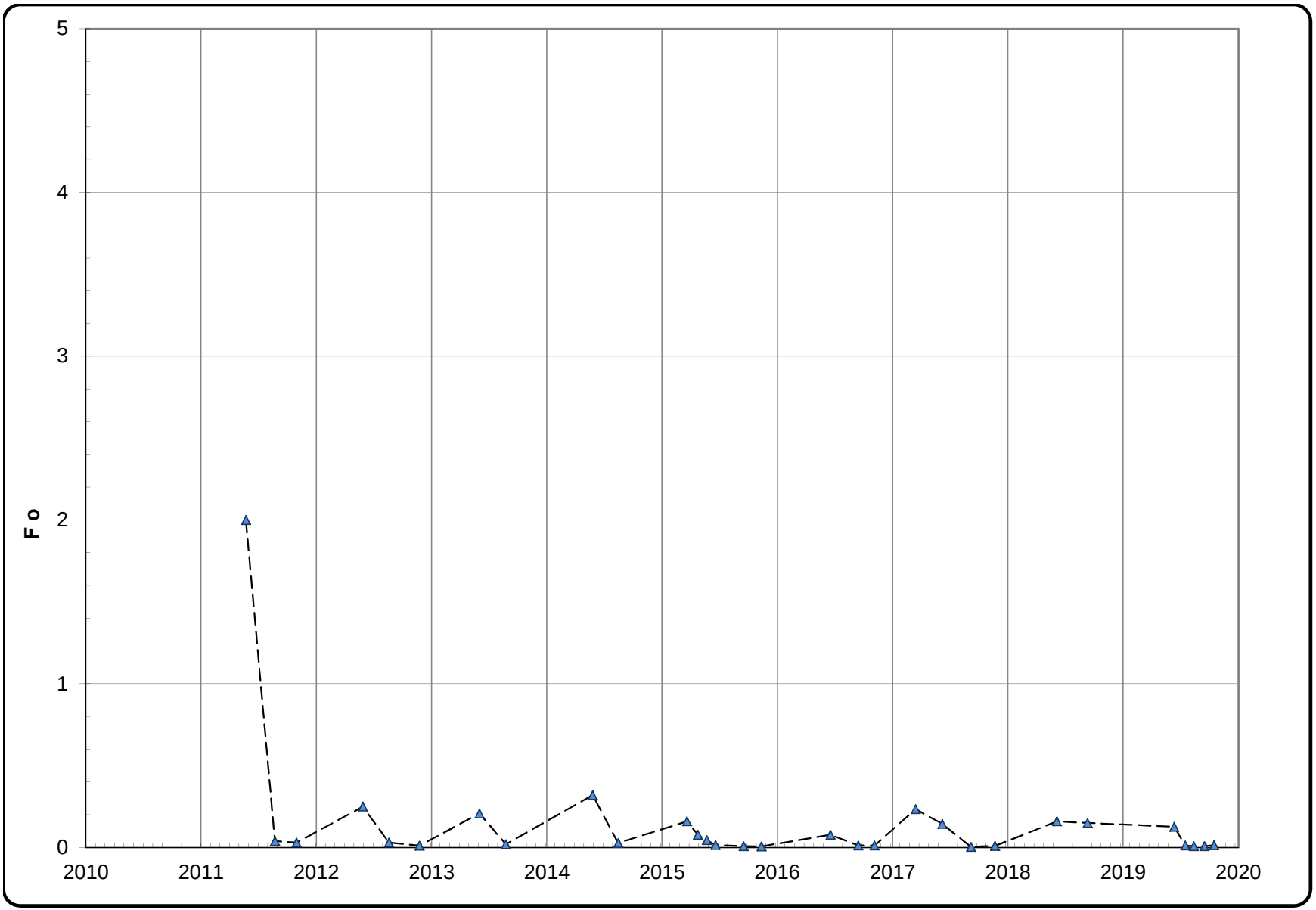
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USGS-SC1 Hydrograph
Black Butte Copper Project
Meagher County, Montana



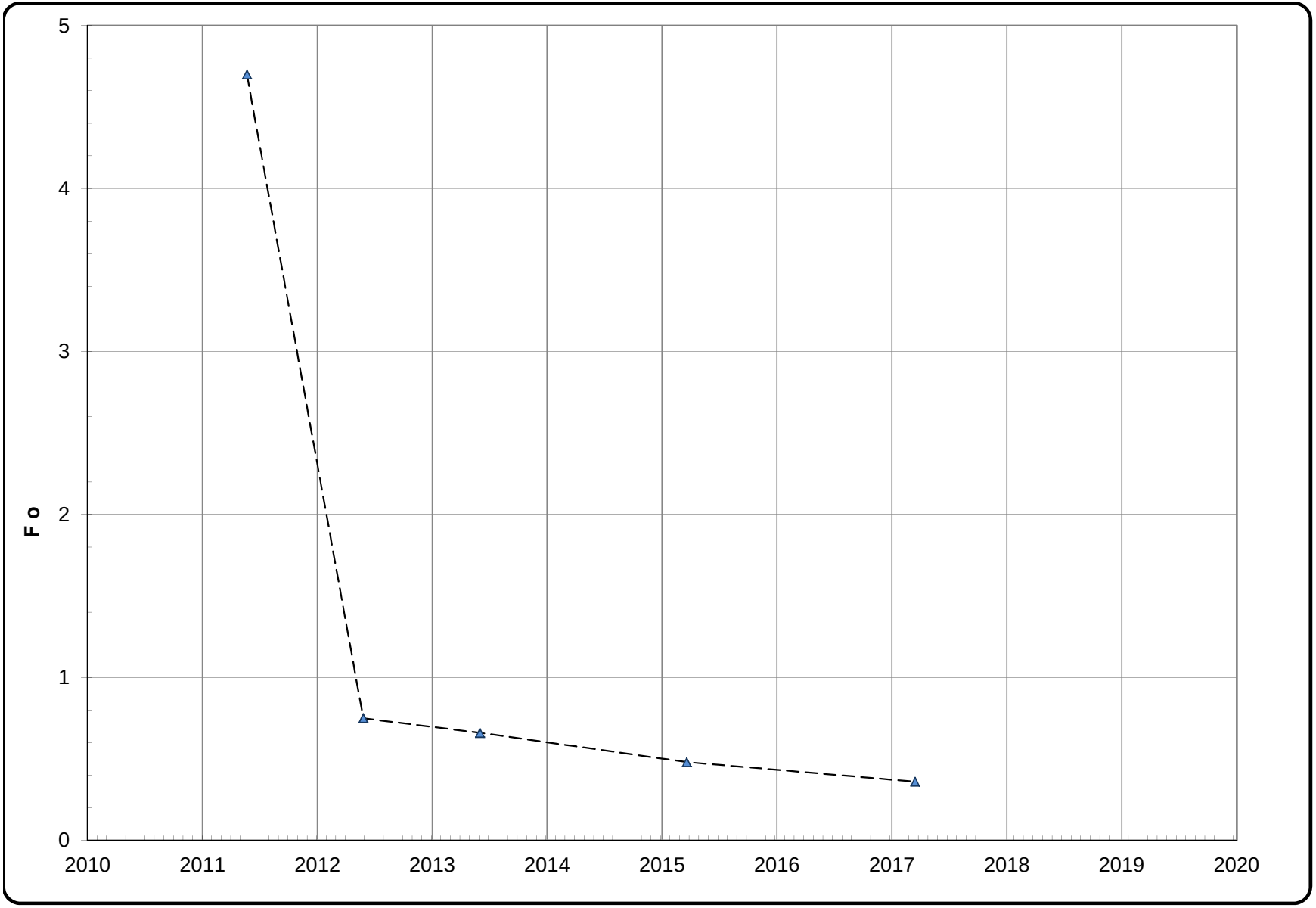
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SW-3 Hydrograph
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Meagher County, Montana



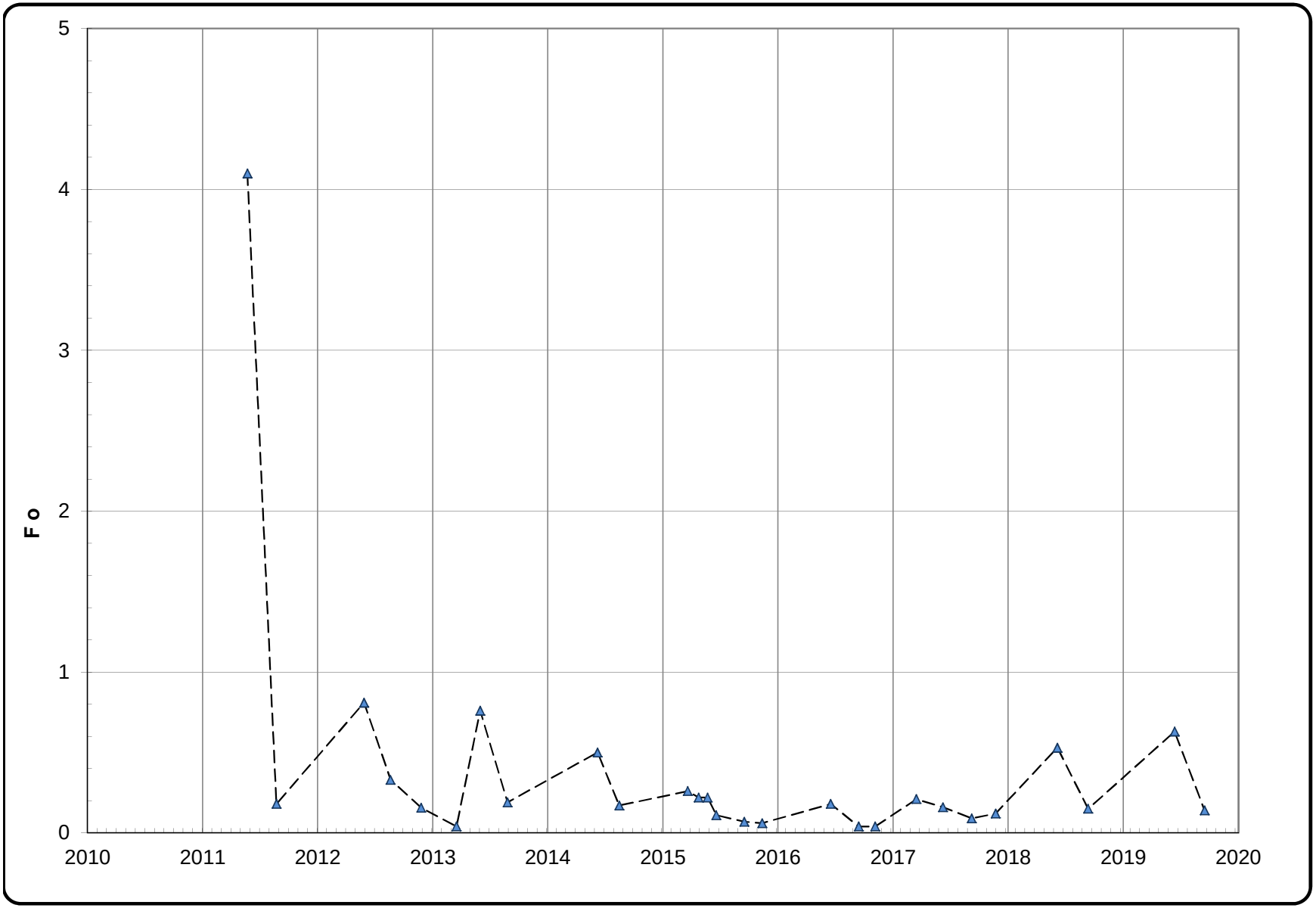
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SW-4 Hydrograph
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Meagher County, Montana



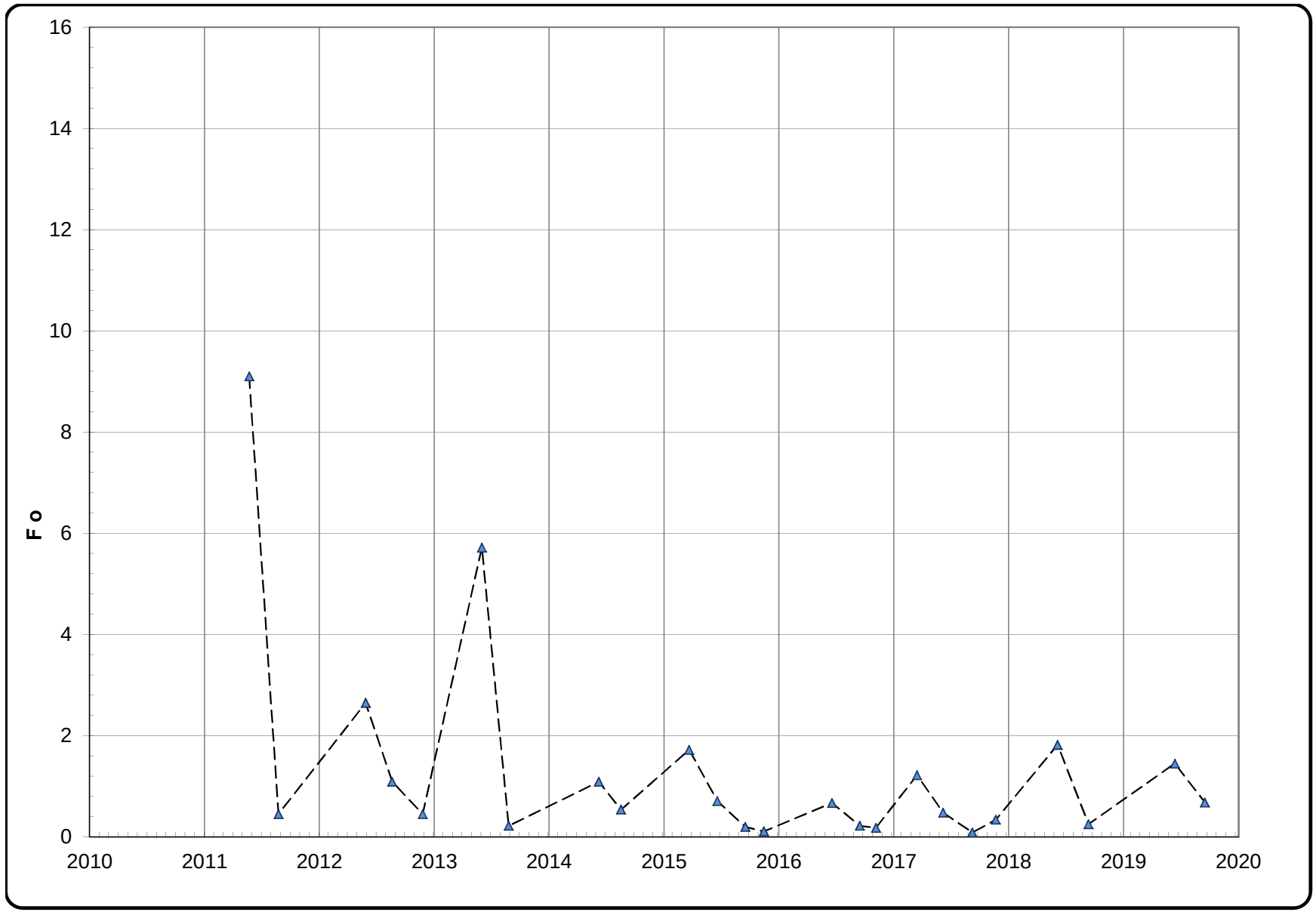
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SW-5 Hydrograph
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Meagher County, Montana



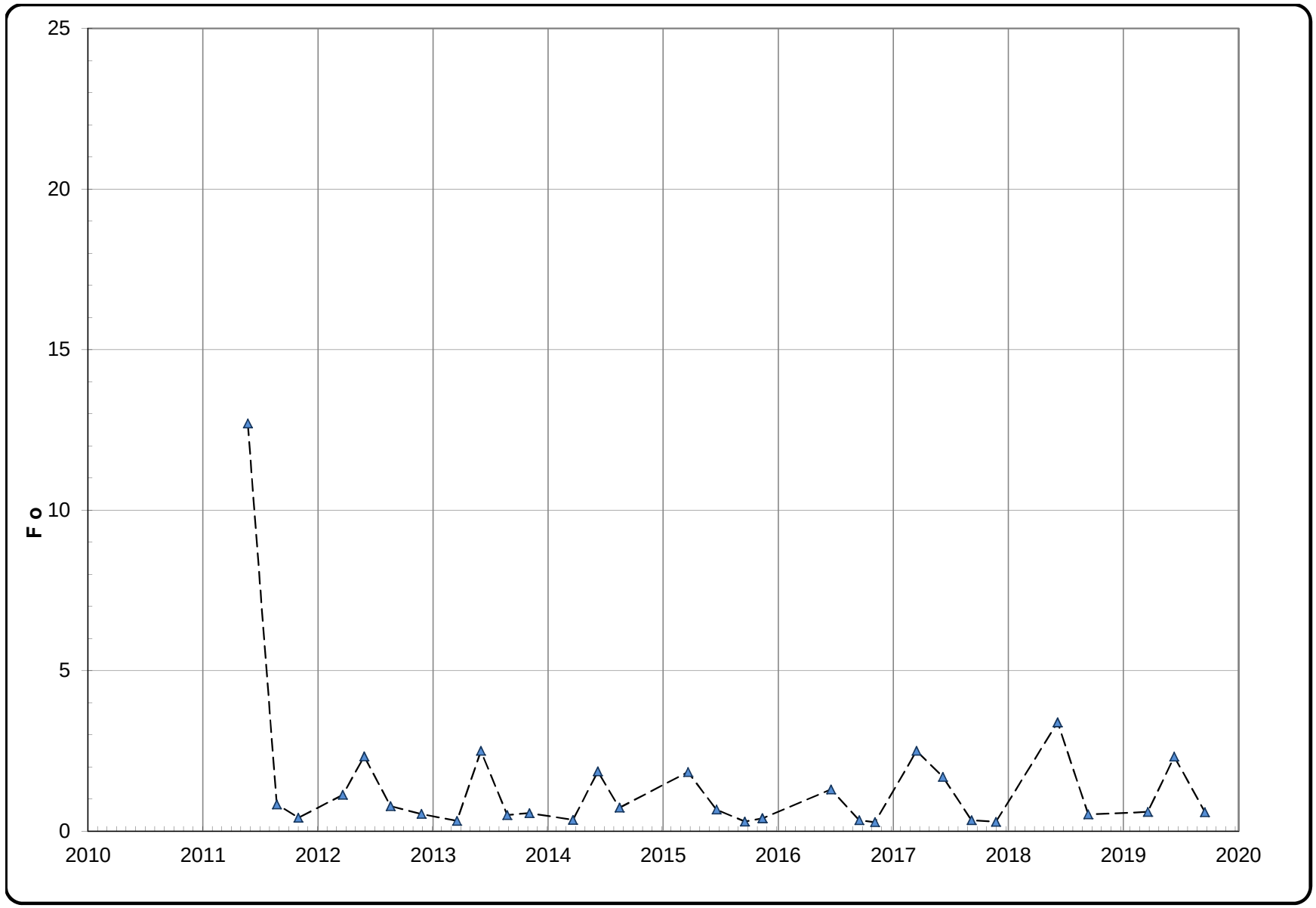
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SW-6 Hydrograph
Black Butte Copper Project
Meagher County, Montana



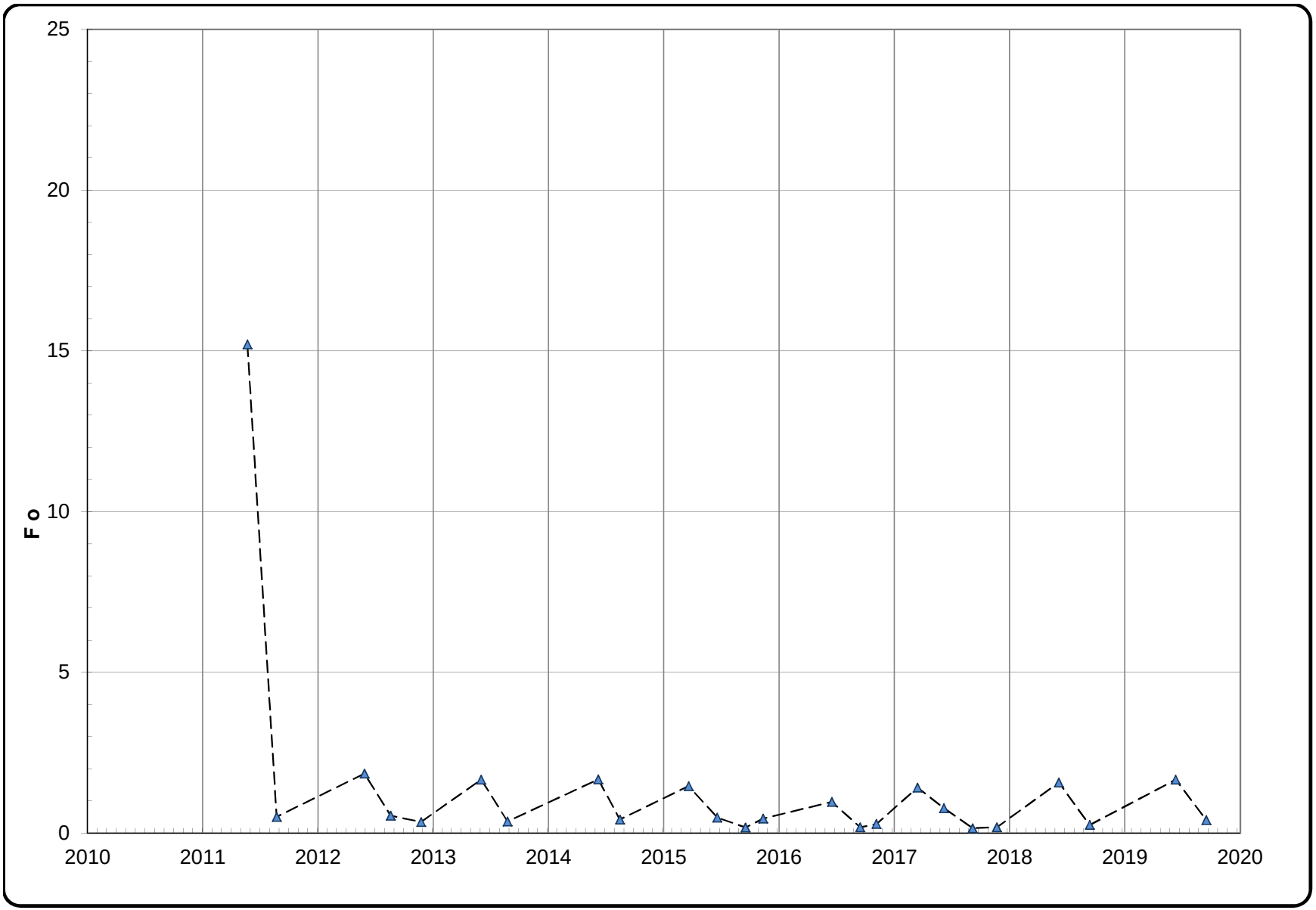
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SW-8 Hydrograph
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Meagher County, Montana



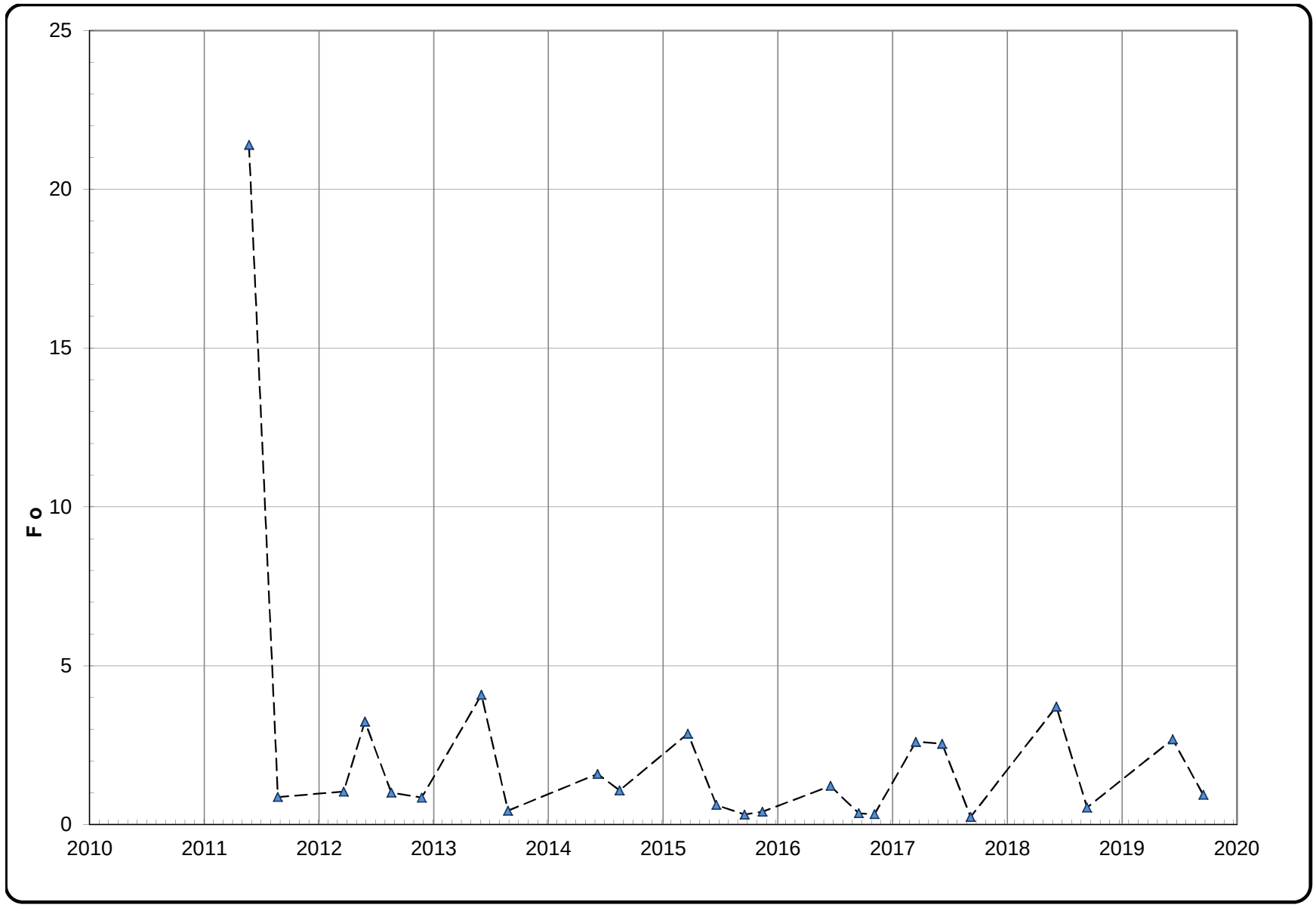
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Meagher County, Montana



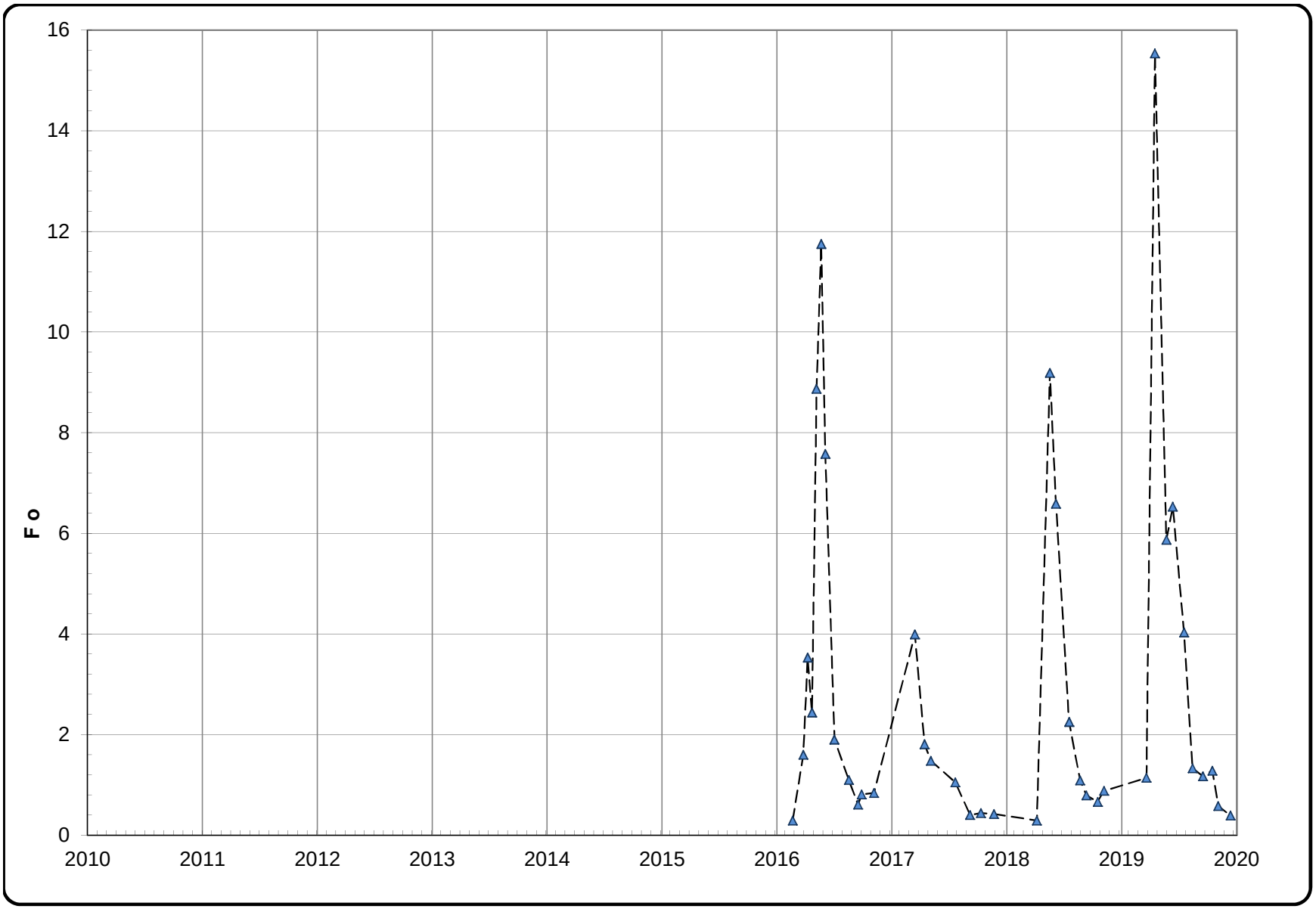
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Meagher County, Montana



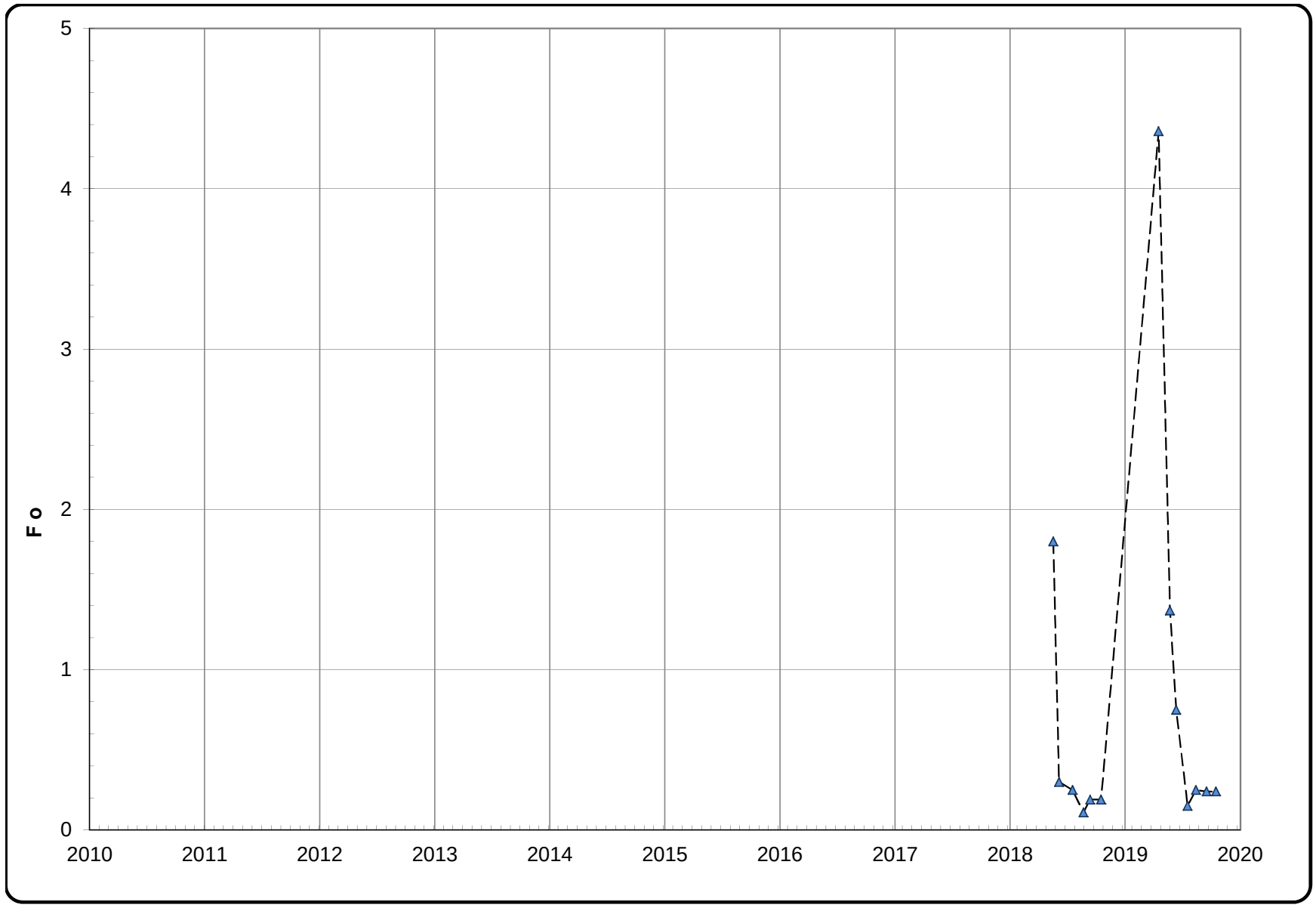
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Meagher County, Montana



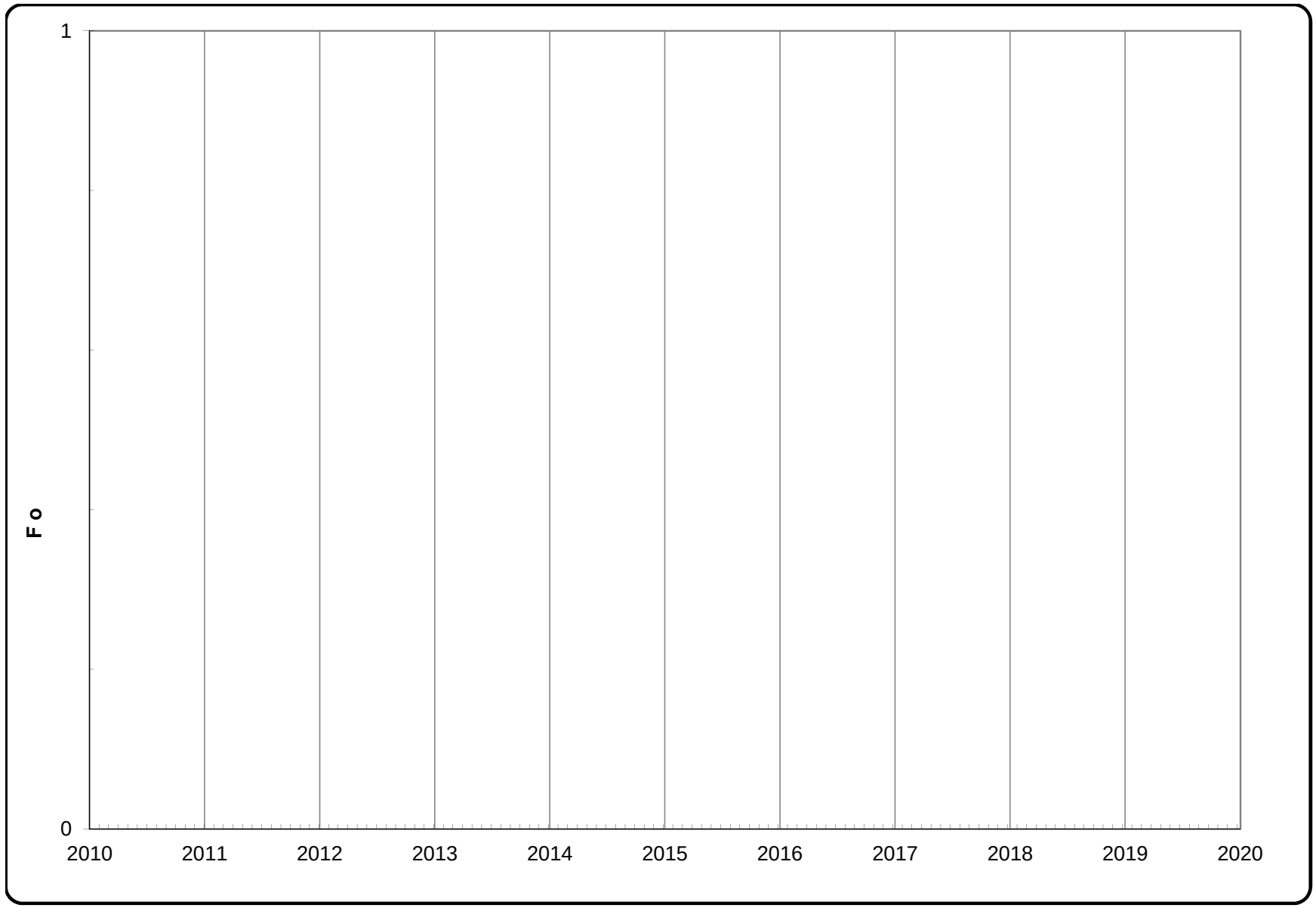
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SW-14 Hydrograph
Black Butte Copper Project
Meagher County, Montana



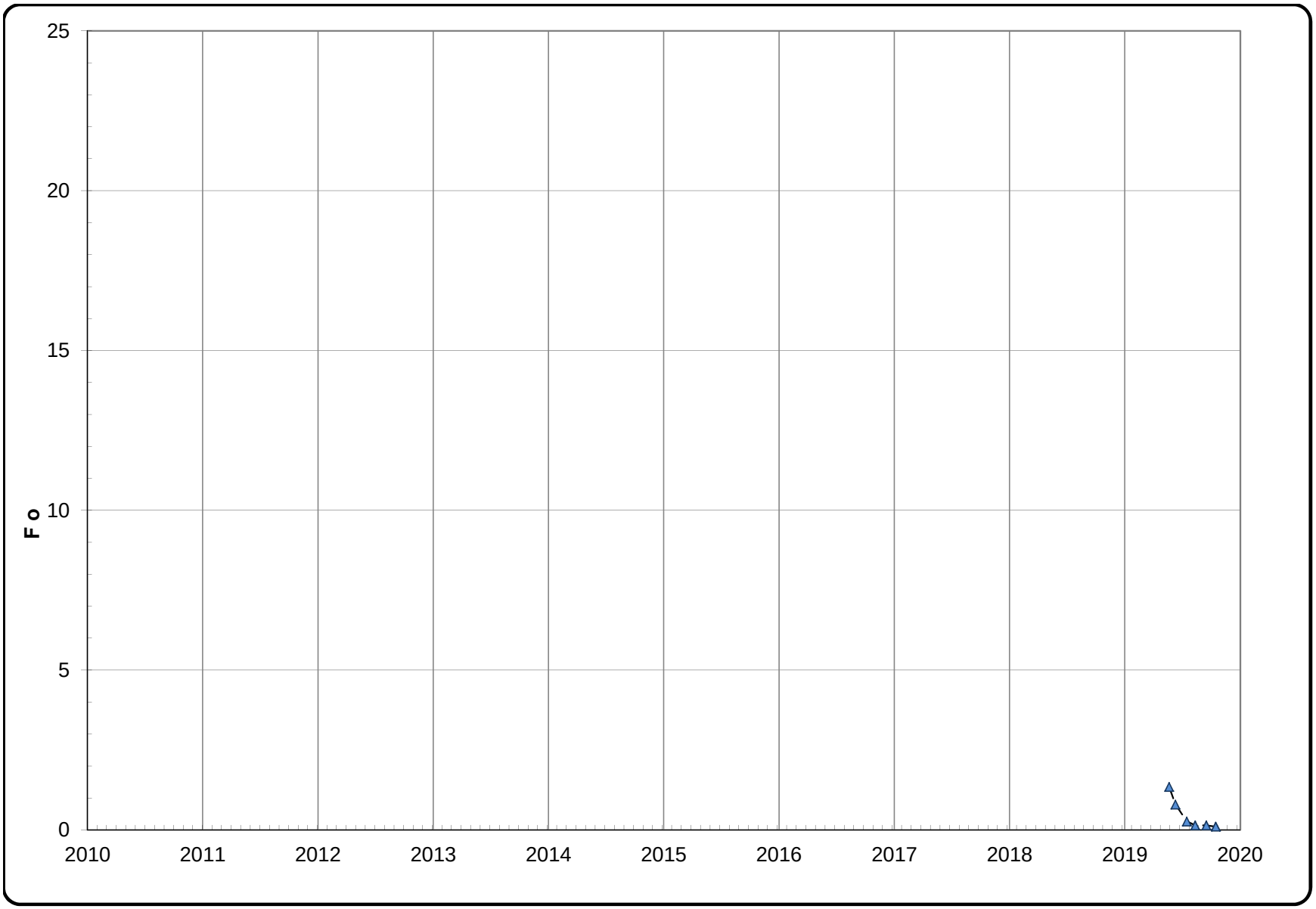
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SW-17 Hydrograph
Black Butte Copper Project
Meagher County, Montana



Hydrometrics, Inc.
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SW-18 Hydrograph
Black Butte Copper Project
Meagher County, Montana



Hydrometrics, Inc.
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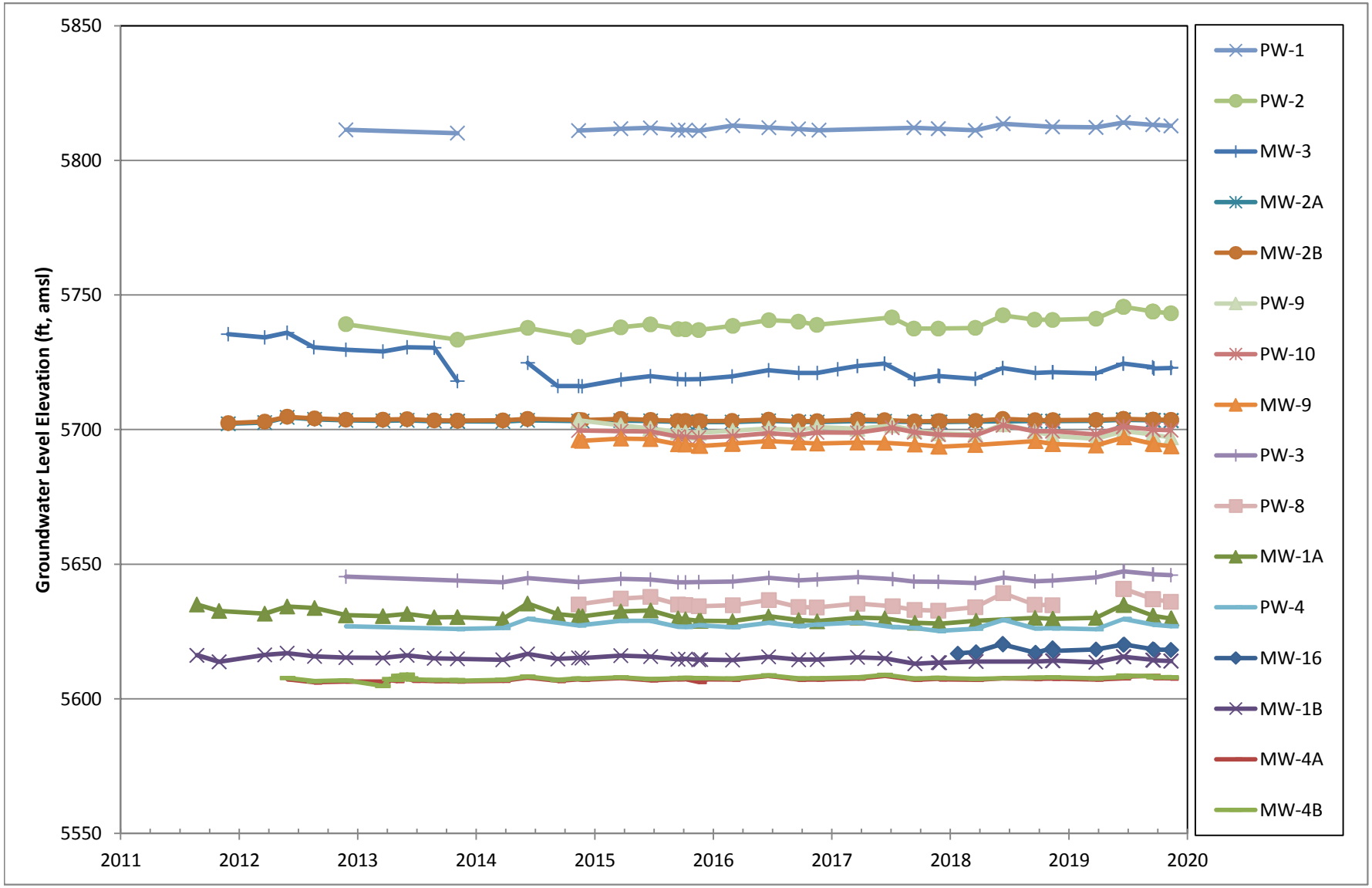
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APPENDIX A2

GROUNDWATER HYDROGRAPHS

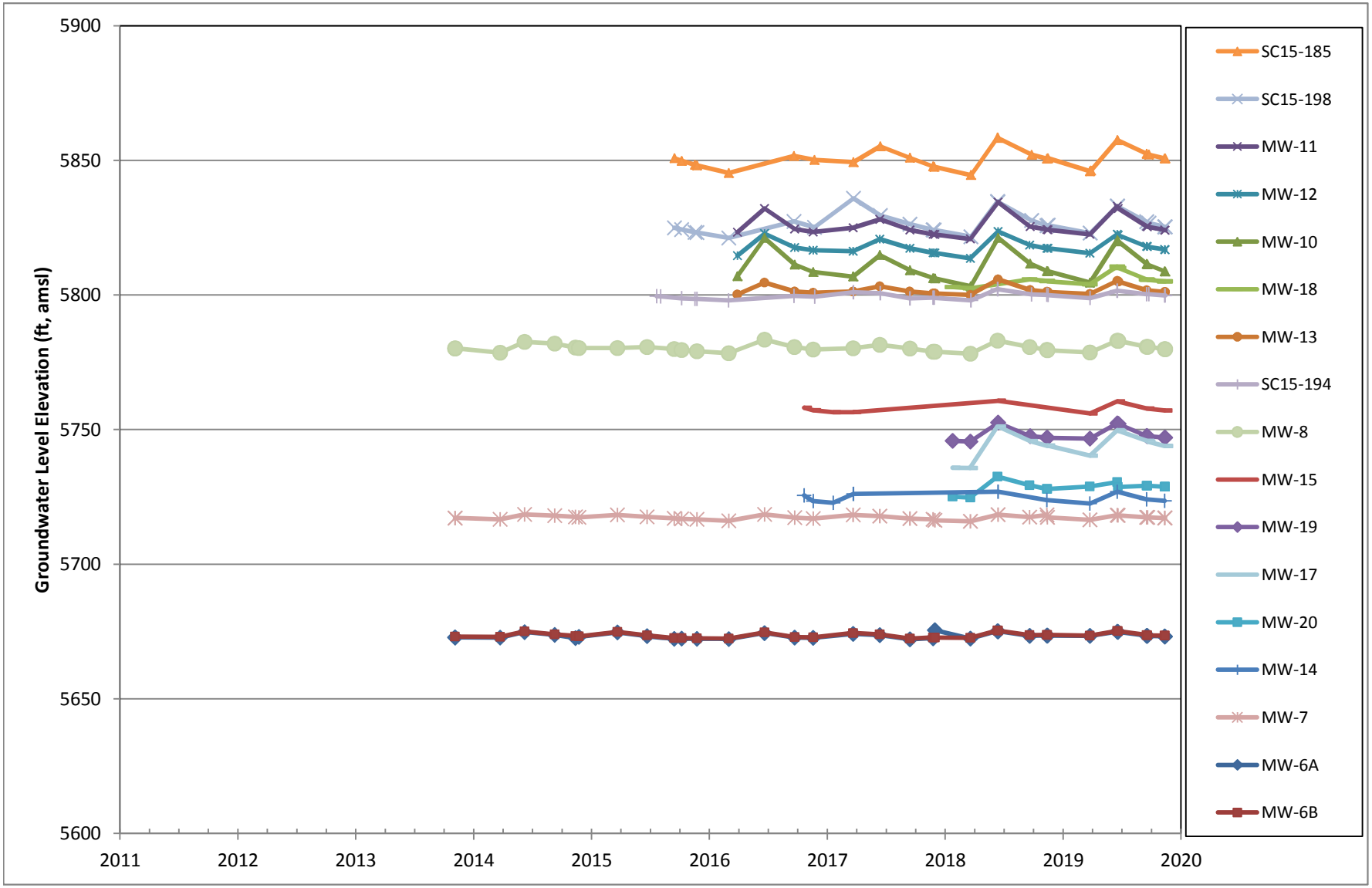
APPENDIX A2. 2019 WATER LEVEL DATA SUMMARY

Well Name	Easting	Northing	Measuring Point Elev.	2019 Water Level Elevation			
	WGS 1984 UTM Zone 12 North			March	June	September	November
	meters		(feet, amsl)				
Monitoring Wells							
MW-1A	506935.22	5180841.55	5637.73	5630.12	5634.97	5630.89	5629.83
MW-1B	506934.19	5180845.46	5637.90	5613.57	5615.71	5614.46	5614.04
MW-2A	506598.18	5180331.93	5745.31	5703.25	5703.60	5703.46	5703.33
MW-2B	506596.96	5180328.73	5745.53	5703.58	5704.01	5703.71	5703.58
MW-3	506484.07	5180740.22	5762.17	5720.83	5724.50	5723.18	5722.83
MW-4A	507201.47	5180855.43	5612.12	5607.13	5607.60	5608.51	5607.57
MW-4B	507200.12	5180858.49	5612.07	5607.58	5608.08	5608.45	5608.04
MW-6A	507809.18	5179492.90	5681.87	5673.36	5674.96	5673.43	5673.20
MW-6B	507792.76	5179490.70	5685.31	5673.51	5675.23	5673.71	5673.48
MW-7	507451.70	5179500.70	5749.46	5716.45	5718.22	5717.43	5717.16
MW-8	507036.00	5179398.30	5810.93	5778.65	5783.04	5780.79	5779.91
MW-9	506592.96	5180725.46	5745.80	5694.09	5697.21	5694.72	5693.79
MW-10	506578.57	5179215.05	5886.11	5804.57	5820.37	5811.55	5808.80
MW-11	506464.72	5179117.47	5857.86	5822.52	5832.89	5825.50	5824.11
MW-12	506412.82	5179010.38	5844.75	5815.47	5822.56	5818.03	5816.84
MW-13	506477.79	5178855.81	5822.48	5800.38	5805.23	5801.78	5801.10
MW-14	508255.63	5179376.77	5763.87	5722.57	5726.89	5724.10	5723.54
MW-15	508290.89	5179071.07	5797.34	5755.99	5760.49	5757.82	5757.06
MW-16	507036.301	5180586.210	5625.59	5618.33	5620.14	5618.44	5618.21
MW-17	506654.57	5180130.74	5796.06	5740.30	5749.78	5745.81	5743.88
MW-18	506257.38	5179707.93	5821.97	5803.93	5810.52	5805.76	5805.08
MW-19	506878.42	5178925.74	5761.07	5746.66	5752.30	5747.62	5747.03
MW-20	507426.69	5179631.58	5750.62	5728.87	5730.54	5729.13	5728.80
SC12-116	507030.00	5180380.00	5793.89	5688.57	5699.25	5697.56	5697.56
SC15-184	507045.30	5178968.70	5745.56	--	--	--	--
SC15-185	506355.52	5179091.15	5881.72	5845.95	5857.52	5852.42	5850.68
SC15-194	506025.67	5179847.22	5819.82	5798.86	5801.59	5800.29	5799.86
SC15-198	506594.08	5179743.42	5867.60	5822.97	5833.04	5827.18	5825.30
Test Wells							
PW-1	506301.42	5180698.40	5913.74	5812.26	5814.06	5813.21	5812.79
PW-2	506443.15	5180865.00	5794.88	5741.20	5745.57	5743.88	5743.17
PW-3	506846.43	5180479.42	5657.42	5645.09	5647.35	5646.27	5645.98
PW-4	506901.79	5180688.26	5680.01	5625.87	5629.62	5627.61	5626.96
PW-5	506490.68	5181172.77	5915.49	5588.63	5594.42	5600.14	5603.55
PW-6N	506477.44	5181085.67	5897.40	5588.82	5592.92	5591.61	5590.77
PW-7	507122.89	5180867.59	5611.15	--	--	--	--
PW-8	506846.19	5180695.53	5680.60	5635.27	5640.90	5637.06	5636.03
PW-9	506598.38	5180721.88	5745.05	5696.56	5699.36	5698.17	5697.10
PW-10	506593.55	5180721.88	5744.84	5698.22	5701.12	5700.00	5699.80
Piezometers							
PZ-01	507650	5180256	5630.34	5627.22	5627.63	5627.43	5627.4
PZ-02	507400.7	5180779	5613.51	5610.3	5610.67	5610.38	5610.5
PZ-03	507249.2	5180619	5617.74	--	5612.74	5613.54	5612.97
PZ-04	506991.7	5181111	5602.7	--	5600.94	5600.99	--
PZ-05	507080	5181215	5599.79	5596.72	5596.79	5596.48	5596.62
PZ-07A	506258.39	5180074.65	5777.5	5773.6	5775.76	5775.69	5775.33
PZ-07B	506258.47	5180075	5777.59	5773.09	5775.14	5774.52	5774.14
PZ-08	507090.31	5180573.81	5621.29	5616.91	5618.42	5617.38	5617.13
PZ-09	507883.78	5180178.58	5637.27	5631.55	5632.52	5632.22	5631.74
PZ-10	506589.19	5180672.48	5727.42	--	5719.12	5718.85	5718.43
PZ-11R	507031.15	5180654.89	5622.24	5615.26	5616.5	5616.37	5616.19
PZ-12	506844.43	5180513.76	5646.55	5641.57	5641.56	5641.18	5641.33
PZ-13	507793.883	5180289.381	5637.27	5628.48	5629.17	5628.79	5628.49
PZ-14	507492.906	5180412.125	5625.68	5619.71	5619.71	5620.38	5619.66
PZ-15	507193.654	5180762.848	5614.45	--	5609.57	5611.37	5609.68
GEOT18-7	507127.93	5179860.23	5955.09	5782.51	5786.44	5786.44	5783.79



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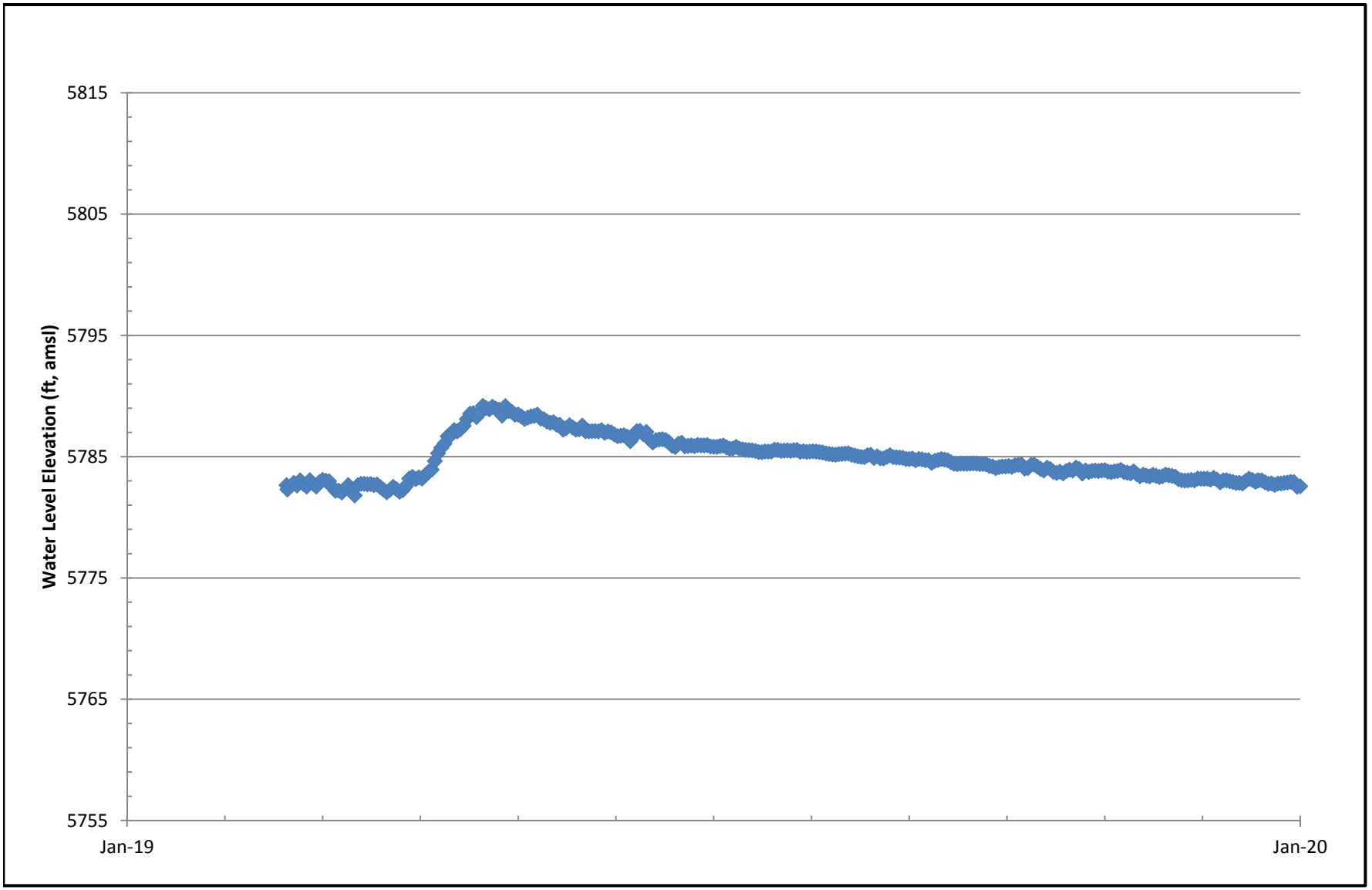
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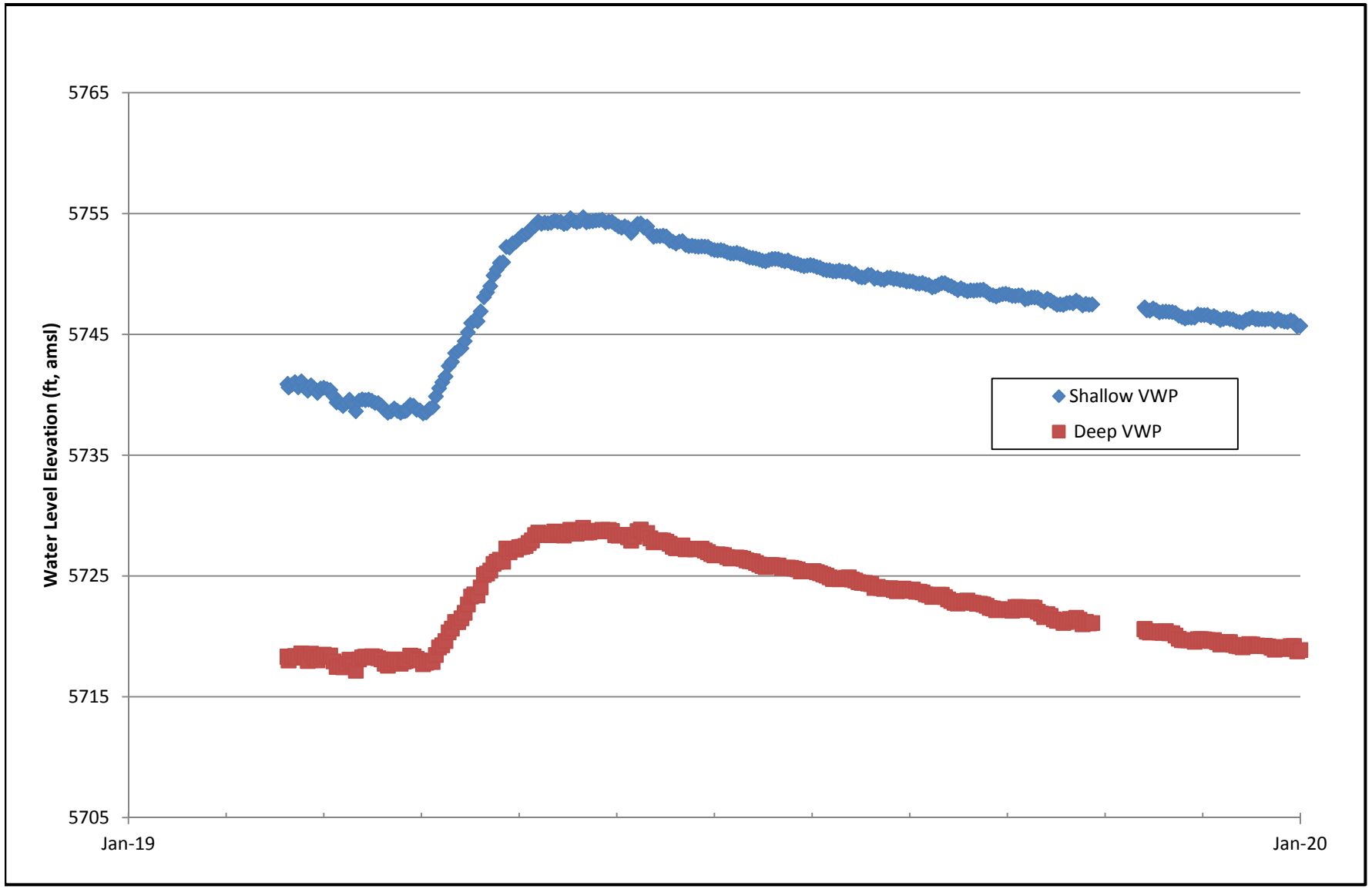
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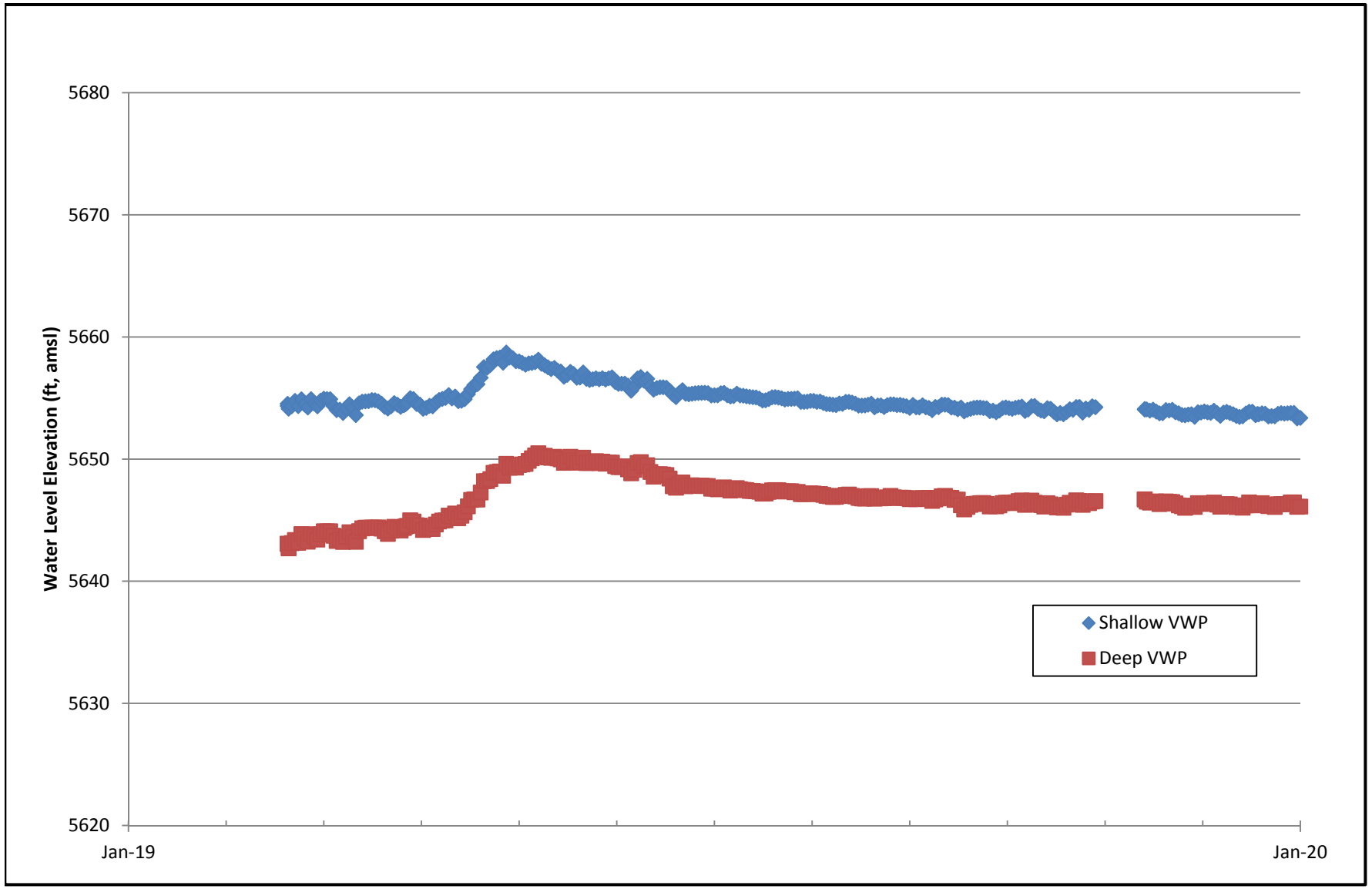
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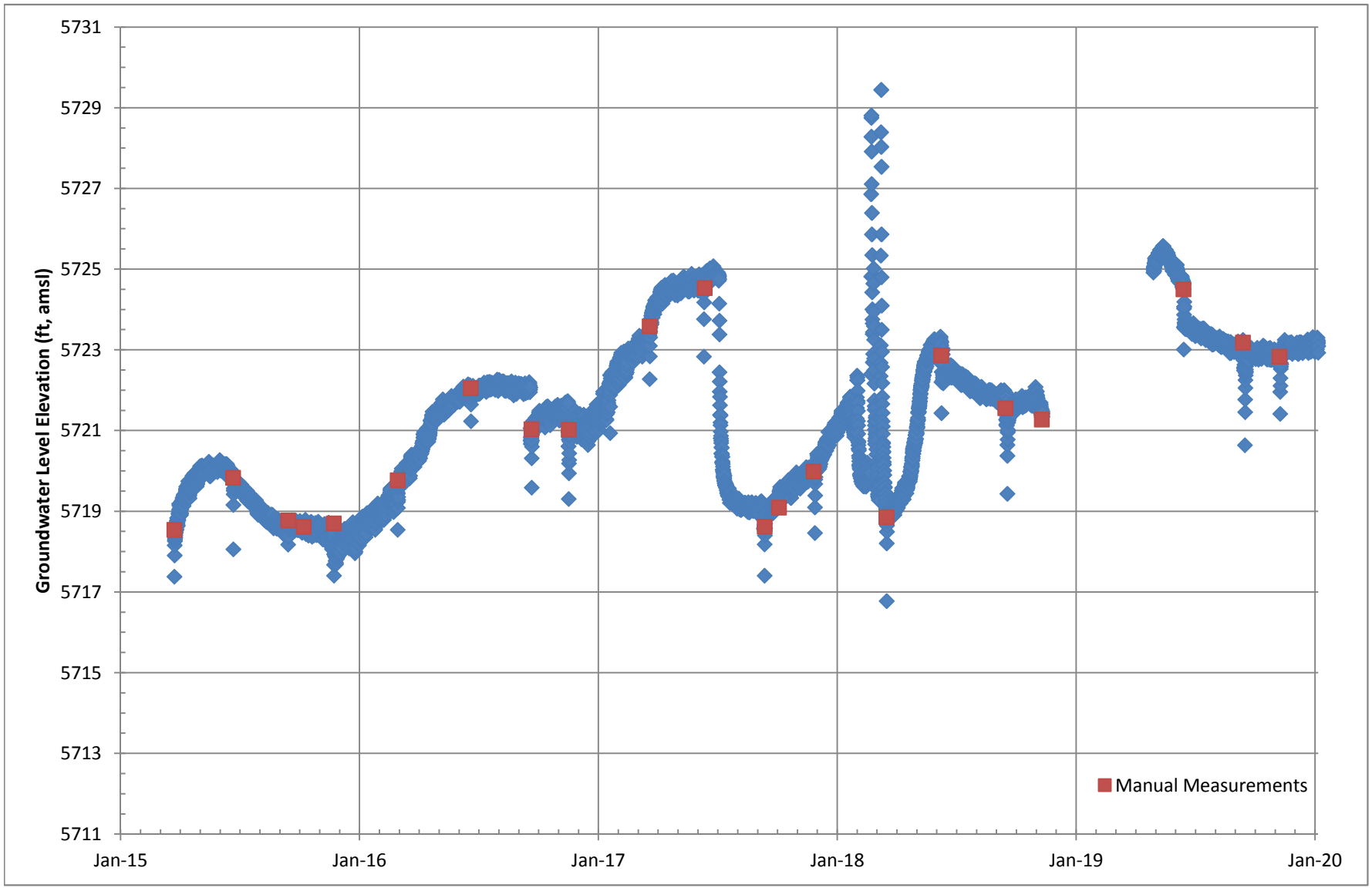
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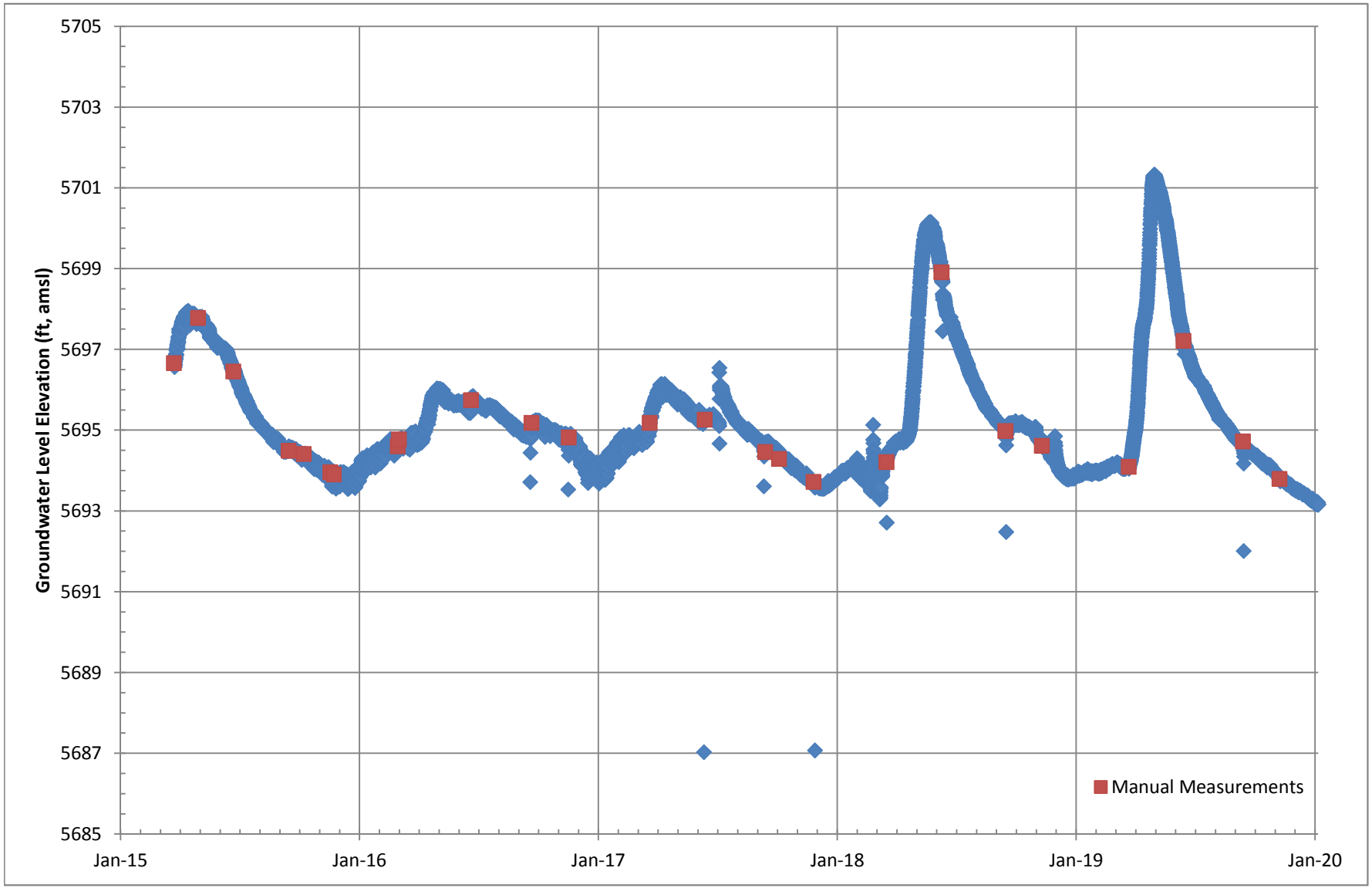
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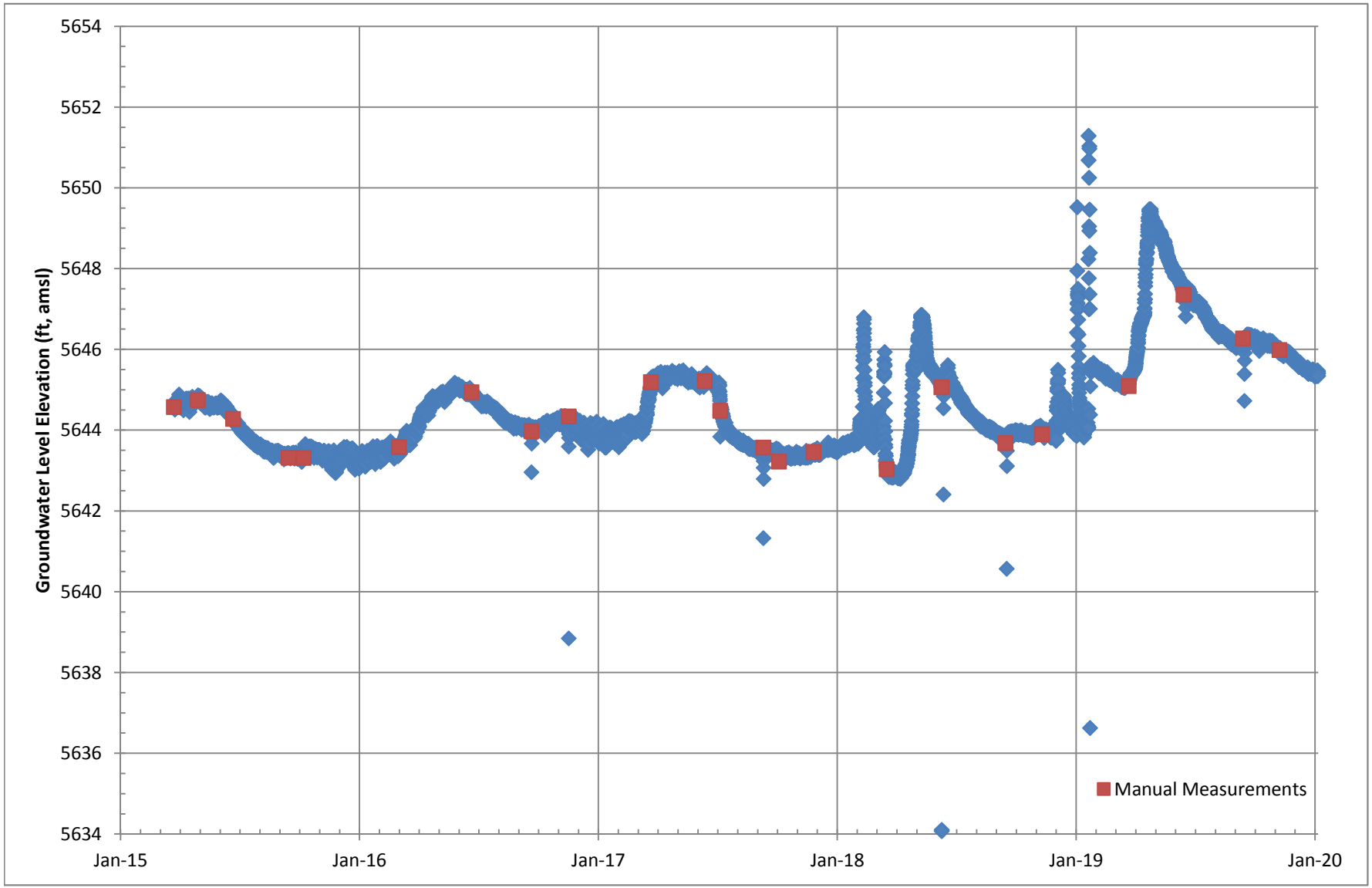
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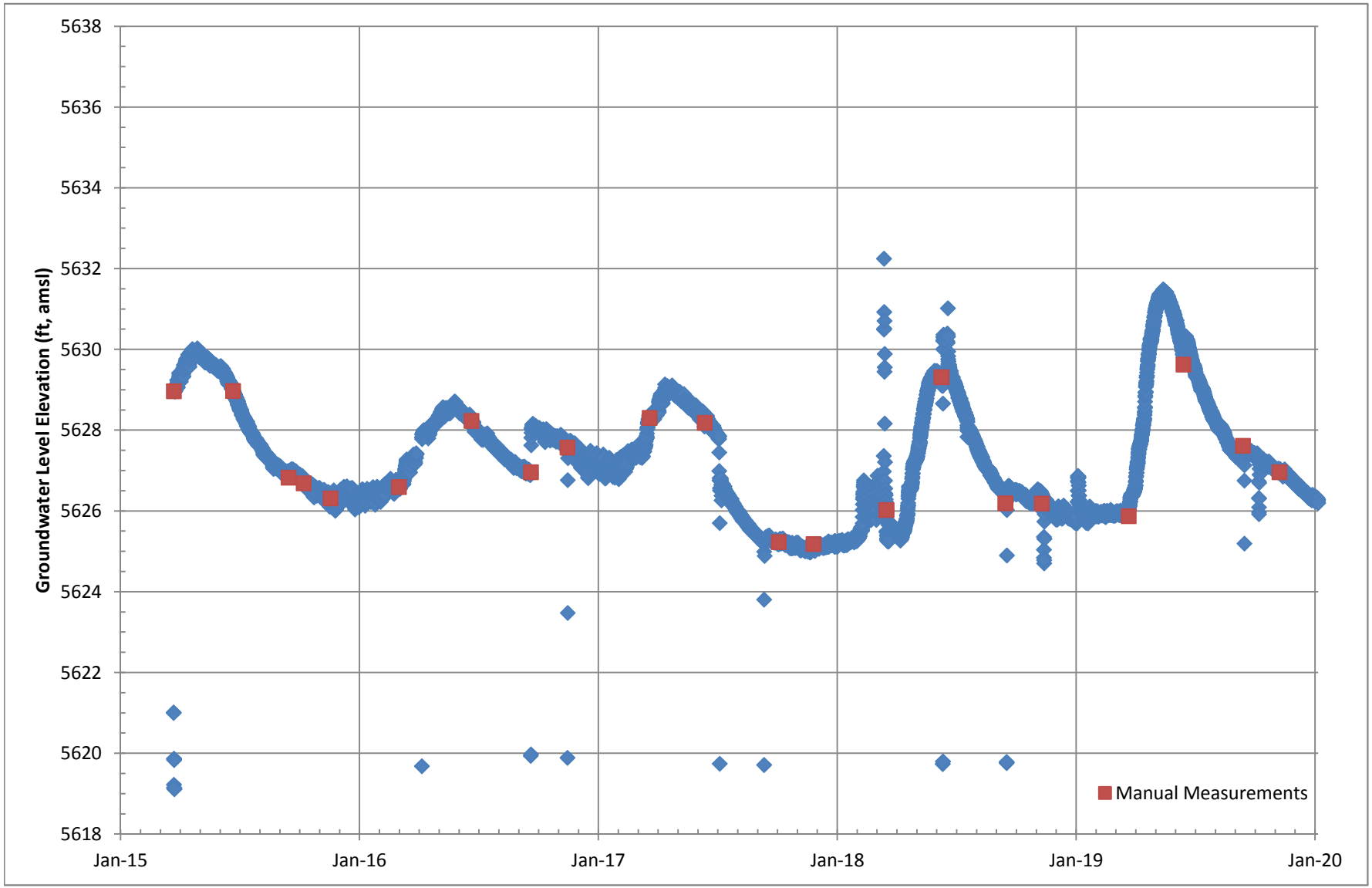
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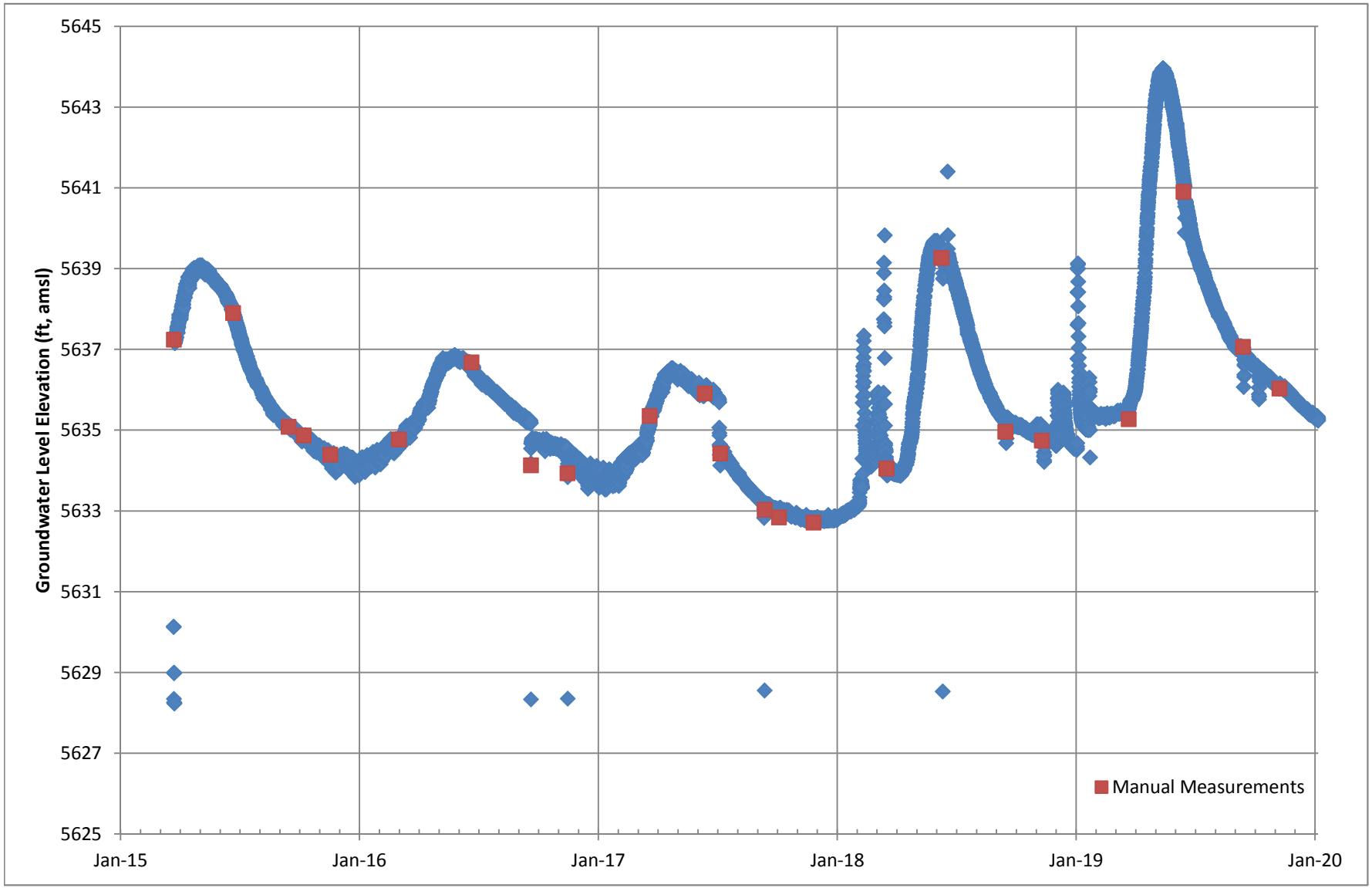
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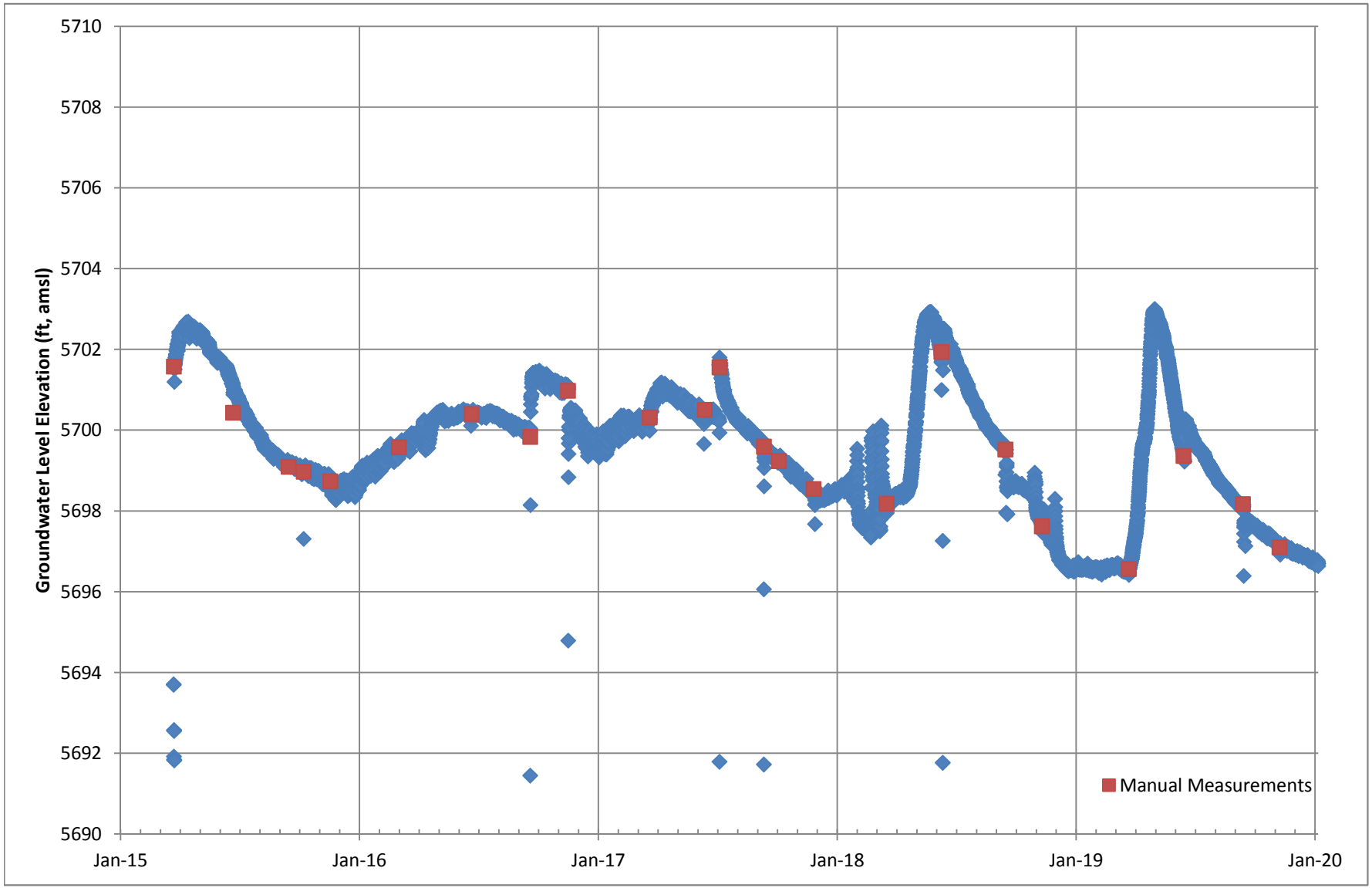
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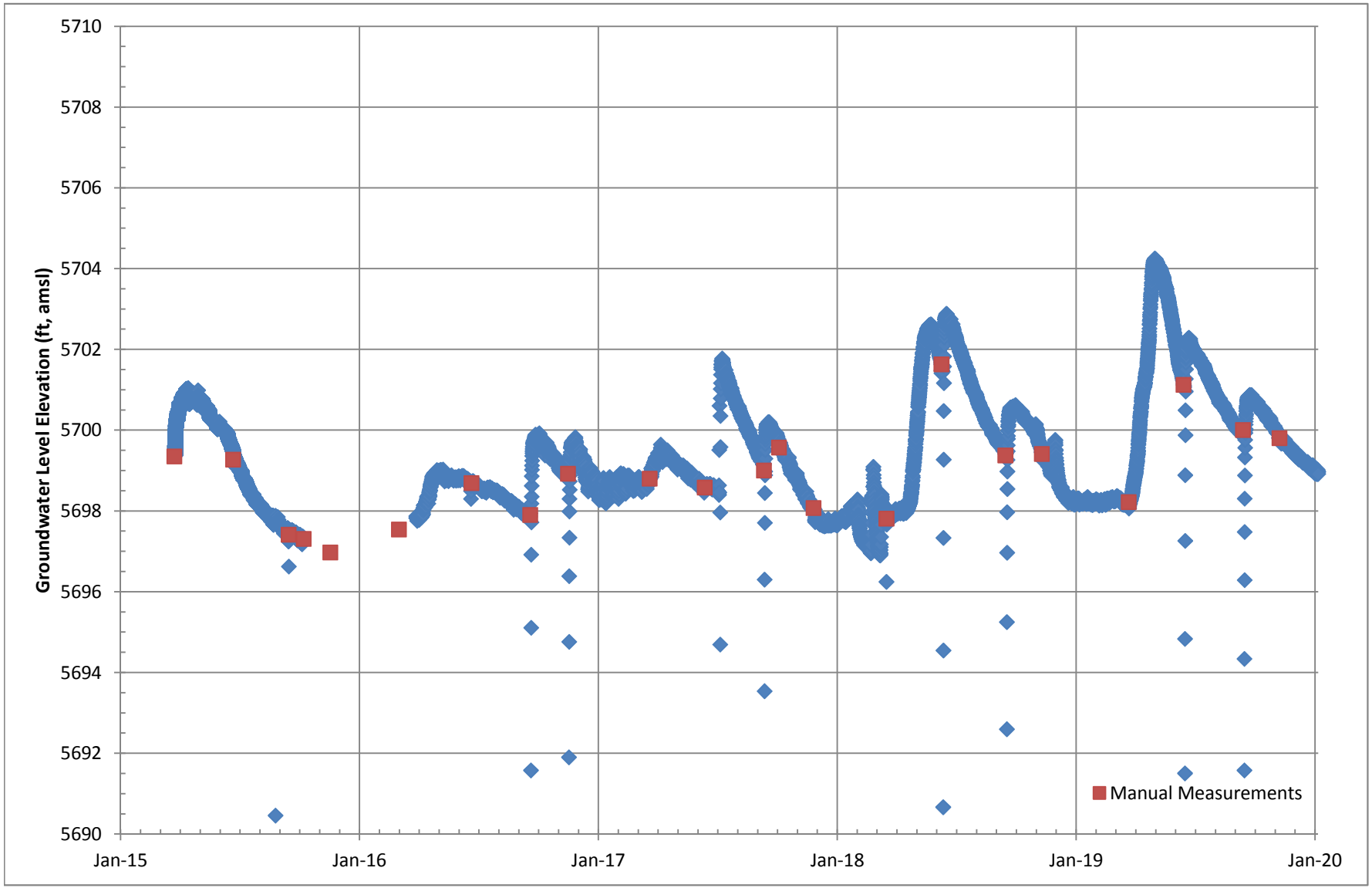
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APPENDIX B

SURFACE WATER QUALITY DATA
SUMMARY AND TREND GRAPHS

Station Name	Reporting Units	Aquatic Life Standard Chronic*	Human Health Standard Surface water	SW-1	SW-1	SW-1	SW-1	SW-1	SW-1	SW-1	SW-1	SW-1	SW-1	SW-1	SW-1	SW-1	SW-1	SW-1	SW-2	SW-2	SW-2	SW-2	SW-2	SW-2
Sample Date				1/10/19 10:00	2/22/19 10:40	2/22/19 10:55	3/27/19 09:00	4/24/19 08:30	4/24/19 09:00	5/30/19 08:40	6/19/19 08:45	7/25/19 11:00	8/21/19 10:40	9/23/19 15:00	10/23/19 14:15	11/11/19 13:15	12/20/19 08:45	12/20/19 09:10	1/10/19 10:20	2/22/19 12:30	3/28/19 09:10	4/24/19 10:25	5/30/19 10:45	6/19/19 09:30
Sample ID				BBC-1901-100	BBC-1902-100	BBC-1902-101	BBC-1903-120	BBC-1904-113	BBC-1904-114	BBC-1905-115	BBC-1906-109	BBC-1907-122	BBC-1908-122	BBC-1909-101	BBC-1910-100	BBC-1911-100	BBC-1912-114	BBC-1912-115	BBC-1901-101	BBC-1902-105	BBC-1903-129	BBC-1904-116	BBC-1905-119	BBC-1906-110
Lab Name				Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
Remarks						Duplicate			Duplicate									Duplicate						
Lab Sample ID				H19010185-001	H19020363-001	H19020363-002	H19030477-003	H19040763-016	H19040763-017	H19050914-001	H19060536-002	H19070583-003	H19080621-003	H19090608-002	H19100567-001	H19110278-001	H19120487-002	H19120487-003	H19010185-002	H19020363-004	H19030548-005	H19040763-019	H19050914-005	H19060536-003
Field Parameters																								
Dissolved Oxygen	mg/L			14.32	4.58		11.47	11.11		14	9.83	9.16	9.6	9.59	11.7	14.82	11.59		12.02	11.09	11.06	11.16	12.85	9.96
Field pH	s.u.			7.88	6.13 A		7.86	7.76		8.24	8.24	8.38	8.46	8.64	8.63	8.11	8.29		7.74	6.38 A	8.14	8.03	8.35	8.3
Field Specific Conductivity	umhos/cm			319	333		309	179		193	286	322	304	309	306	341	334		311	188	322	178	201	280
Flow	Cubic Ft Sec			NM-ICE	NM-ICE		NM-ICE	174.3		199.5	91.93	51.24	33.11	30.28	26.85	NM-ICE	NF-ICE			NM-ICE	NM-ICE	93.98	NM	71.76
Staff Gauge	Feet							1.72		1.98	1.4	1.2	1.01	0.98	0.92							1.1	1.75	1.05
Water Temperature	Deg C			-0.84	0.04		0.5	1.7		5.1	7.8	10.9	11.8	11.8	2.2	0.01	0.2		-0.92	0	0.1	1.4	4.9	7.3
Physical Parameters																								
pH	s.u.				8.1 H	8.1 H														8.1 H				
pH Measurement Temp	Deg C				16.3	15.7														15.4				
Total Dissolved Solids	mg/L			176 D	189 D	183 D	180 D	135 D	136 D	116 D	186 D	185 D	178 D	191 D	164 D	193 D	179 D	182 D	170 D	174 D	181 D	128 D	115 D	183 D
Total Suspended Solids	mg/L			<4	<4	<4	4	<4	54 J	16	9	4 J	5	5	<4	<4	<4	<4	<4	<4	4	<4	15	8
Major Constituents - Commons Ions																								
Alkalinity as CaCO3	mg/L			180	170	170	150	87	86	98	150	170	160	170	160	180	170	170	170	170	160	85	100	140
Calcium (DIS)	mg/L			50	51	50	43	24	25	28	42	48	42	44	46	49	49	48	49	50	48	25	28	41
Chloride	mg/L			2	1	1	4	2	2	1	1	1	1	1	2	2	2	2	1	1	3	2	1	1
Fluoride	mg/L		4	0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hardness as CaCO3	mg/L			180	183	180	156	88	90	100	148	167	150	160	165	183	172	170	175	176	170	89	98	143
Magnesium (DIS)	mg/L			13	14	13	12	7	7	7	10	12	11	12	12	15	12	12	13	13	12	6	7	10
Potassium (DIS)	mg/L			1	1	1	3	2	2	<1	1	1	1	2	1	1	1	1	1	1	1	1	<1	1
Sodium (DIS)	mg/L			2	2	2	3	2	2	1	2	2	2	2	2	2	2	2	2	2	3	2	2	2
Sulfate	mg/L			7	7	7	7	4	4	4	5	5	6	6	7	7	8	7	7	7	7	4	4	5
Nutrients																								
Nitrate + Nitrite as N	mg/L		10	0.12	0.12	0.12	0.09	0.05	0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	0.05	0.13	0.11	0.1	0.1	0.07	0.03	<0.01	<0.01
Phosphorus (TOT)	mg/L																0.008	0.008						
Phosphorus (TRC)	mg/L			0.009	0.016	0.016	0.05	0.095	0.089	0.021	0.018 J	0.01	0.009	0.014	0.005	0.007			0.008	0.012	0.012	0.066	0.017	0.013 J
Total Nitrogen as N (Persulfate)	mg/L			0.19	0.21	0.2	0.48	0.48	0.52	0.15	0.17	0.12	0.1	0.12	0.06	0.11	0.21	0.18	0.16	0.15	0.17	0.4	0.12	0.12
Metals - Trace Constituents																								
Aluminum (DIS)	mg/L	0.087		<0.009	<0.009	<0.009	0.03	0.409	0.332	0.062	0.015	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	0.02	<0.009	0.033	0.47	0.051	0.012
Antimony (TRC)	mg/L		0.0056	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (TRC)	mg/L	0.15	0.01	<0.001	<0.001	<0.001	<0.001	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
Barium (TRC)	mg/L		1	0.105	0.107	0.107	0.106	0.116	0.111	0.081	0.095	0.102	0.108	0.116	0.1	0.108	0.107	0.11	0.091	0.098	0.1	0.106	0.073	0.078
Beryllium (TRC)	mg/L		0.004	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Cadmium (TRC)	mg/L	0.00026	0.005	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Chromium (TRC)	mg/L		0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt (TRC)	mg/L			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper (TRC)	mg/L	0.0029	1.3	<0.002	<0.002	<0.002	<0.002	0.003	0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.003	<0.002	<0.002
Iron (TRC)	mg/L	1		0.17	0.13	0.13	0.3	2.11 J	1.45 J	0.6	0.26	0.13	0.13	0.22	0.14	0.19	0.18	0.16	0.17	0.12	0.28	1.45 J	0.55	0.23
Lead (TRC)	mg/L	0.00054	0.015	<0.0003	<0.0003	<0.0003	<0.0003	0.0013	0.0011	0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.0009	<0.0003	<0.0003
Manganese (TRC)	mg/L			0.015	0.014	0.014	0.021	0.05	0.046	0.015	0.017	0.015	0.014	0.021	0.012	0.019	0.015	0.016	0.009	0.009	0.015	0.035	0.012	0.011
Mercury (TRC)	ug/L			<0.005	<0.005	<0.005	0.007	0.023	0.025	0.011	<0.005	<0.005	<0.005	0.008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.025	0.01	<0.005
Molybdenum (TRC)	mg/L			<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Nickel (TRC)	mg/L	0.016	0.1	<0.001	<0.001	<0.001	<0.001	0.004	0.003	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	0.001	<0.001
Selenium (TRC)	mg/L	0.005	0.05	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Silver (TRC)	mg/L		0.1	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Strontium (TRC)	mg/L		4	0.127 D	0.128 D	0.128 D	0.113 D	0.0708 D	0.0697 D	0.0896 L	0.124 L	0.136 L	0.123	0.125	0.127	0.13	0.127	0.128	0.124 D	0.128 D	0.126 D	0.0772 D	0.0946 L	0.126 L
Thallium (TRC)	mg/L		0.00024	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Uranium (TRC)	mg/L		0.03	0.0004	0.0004	0.0004	0.0003	0.0003	0.0003	0.0002	0.0003	0.0003	0.0003	0.0004	0.0003	0.0004	0.0004	0.0004	0.0003	0.0004	0.0004	0.0003	0.0002	0.0003
Zinc (TRC)	mg/L	0.037	2	<0.002	<0.002	<0.002	<0.002	0.009	0.007	0.002 B	0.003 J	<0.004	<0.002	<0.004	<0.004	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.007	0.004 B	0.002 J

Definitions:
J = Field Duplicate sample exceeded QA/QC comparison control limits
U = Field Blank sample exceeded QA/QC comparison control limits
H = Holding time exceeded QA/QC comparison control limits
D = Reporting limit increased due to sample matrix interference
L = The lowest available reporting limit was used per method used for analysis
NM = Not measured
NF-ICE = Not flowing; ice on ground
NM-ICE = Not measured; ice prohibitive
NF-DRY = Not flowing; Dry ground

Analyte concentration exceeds the standard for:

	Aquatic Life Standard Chronic*
	Human Health Standard Surface water

Source:
Montana DEQ7 May 2017
Montana DEQ7 June 2019

Station Name	Reporting Units	Aquatic Life Standard Chronic*	Human Health Standard Surface water	SW-2	SW-2	SW-2	SW-2	SW-2	SW-2	SW-2	SW-3	SW-3	SW-3	SW-3	SW-3	SW-3	SW-3	SW-3	SW-3	SW-3	SW-3	SW-4	SW-4
Sample Date				7/25/19 12:45	8/21/19 11:50	8/21/19 12:15	9/23/19 15:40	10/23/19 15:50	11/11/19 13:35	12/20/19 09:35	1/10/19 11:20	2/22/19 11:40	3/26/19 18:30	4/23/19 16:15	5/30/19 11:40	6/19/19 15:25	7/24/19 14:45	8/20/19 15:00	9/23/19 17:30	10/24/19 13:20	11/11/19 15:40	12/19/19 13:35	3/26/19 18:00	6/19/19 12:30
Sample ID				BBC-1907-126	BBC-1908-125	BBC-1908-126	BBC-1909-102	BBC-1910-103	BBC-1911-101	BBC-1912-118	BBC-1901-105	BBC-1902-103	BBC-1903-117	BBC-1904-110	BBC-1905-121	BBC-1906-123	BBC-1907-110	BBC-1908-110	BBC-1909-108	BBC-1910-119	BBC-1911-108	BBC-1912-125	BBC-1903-116	BBC-1906-114
Lab Name				Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	HYDRO	Hydro
Remarks						Duplicate					No Sample	No Sample										No Sample	No Sample	No Sample
Lab Sample ID				H19070583-007	H19080621-006	H19080621-007	H19090608-003	H19100567-004	H19110278-002	H19120487-005			H19030477-002	H19040763-014	H19050914-007	H19060536-006	H19070583-002	H19080621-002	H19090608-008	H19100567-008	H19110278-006			
Field Parameters																								
Dissolved Oxygen	mg/L				9.6		9.86	11.74	14.3	11.14			8.93	9.57	11.41	9.28	8.09	8.33	9.09	10.94	13.49			7.7
Field pH	s.u.				8.5		8.62	8.67	7.96	8.21			8.01	7.97	8.34	8.46	8.34	8.41	8.43	8.36	7.99			7.94
Field Specific Conductivity	umhos/cm				299		309	298	300	327			290	238	308	379	414	407	417	416	421			376
Flow	Cubic Ft Sec			43.96	30.89		24.32	21.99	NM-ICED	NF-ICE	NF-ICE	NF-ICE	NM-ICE	NM	0.18	0.09	0.12	0.06	0.07	NM	NM-ICE	NF-ICE	NF-ICE	0.13
Staff Gauge	Feet			0.75	0.55		0.4	0.4						0.95			0.12		0.17	0.28				
Water Temperature	Deg C				12.7		9.9	2	0	0.15			2.2	5.9	8.9	11	14.4	13.8	9.6	1.8	-0.01			10.1
Physical Parameters																								
pH	s.u.																							
pH Measurement Temp	Deg C																							
Total Dissolved Solids	mg/L			179 D	173 D	175 D	187 D	160 D	169 D	180 D			195 D	149 D	200 D	247 D	236 D	244 D	255 D	219 D	239 D			
Total Suspended Solids	mg/L			<4	<4	<4	<4	<4	<4	23			<4	16 J	<4	5	6 J	4	<4	14 J	<4			
Major Constituents - Commons Ions																								
Alkalinity as CaCO3	mg/L			170	160	160	170	160	160	170			150	120	180	180	210	210	210	200	200			
Calcium (DIS)	mg/L			48	43	43	44	47	44	48			37	27	44	44	52	47	49	49	50			
Chloride	mg/L			1	1	1	1	1	1	1			3	2	2	2	3	4	4	5	5			
Fluoride	mg/L		4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2			
Hardness as CaCO3	mg/L			166	152	153	158	164	161	170			168	116	195	198	228	216	224	219	236			
Magnesium (DIS)	mg/L			11	11	11	11	11	13	12			19	12	21	21	24	24	24	23	27			
Potassium (DIS)	mg/L			1	1	1	1	1	1	1			4	2	<1	<1	1	1	1	1	1			
Sodium (DIS)	mg/L			2	2	2	2	2	2	2			2	1	2	2	2	2	2	2	2			
Sulfate	mg/L			5	5	6	5	6	6	7			19	7	18	17	18	21	19	22	24			
Nutrients																								
Nitrate + Nitrite as N	mg/L		10	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	0.1			<0.01	0.02	<0.01	<0.01	0.02	0.08	0.03	<0.01	0.06			
Phosphorus (TOT)	mg/L									0.016														
Phosphorus (TRC)	mg/L			0.004	0.006	0.007	0.006	0.005	0.006				0.094	0.076	0.006	0.009 J	0.015	0.018	0.007	0.006	0.007			
Total Nitrogen as N (Persulfate)	mg/L			0.06	0.08	0.08	0.07	0.06	0.1	0.19			0.3	0.41	0.12	0.1	0.12	0.17	0.09	0.13	0.12			
Metals - Trace Constituents																								
Aluminum (DIS)	mg/L	0.087		<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009			<0.009	0.047	<0.009	<0.009	0.018 J	<0.009	<0.009	<0.009	<0.009			
Antimony (TRC)	mg/L		0.0056	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005			
Arsenic (TRC)	mg/L	0.15	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
Barium (TRC)	mg/L		1	0.086	0.102	0.102	0.102	0.091	0.104	0.096			0.116	0.115	0.133	0.146	0.169	0.172	0.171	0.166	0.147			
Beryllium (TRC)	mg/L		0.004	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008			<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008			
Cadmium (TRC)	mg/L	0.00026	0.005	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003			<0.00003	0.00005	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003			
Chromium (TRC)	mg/L		0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
Cobalt (TRC)	mg/L			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
Copper (TRC)	mg/L	0.0029	1.3	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002			<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002			
Iron (TRC)	mg/L	1		0.09	0.11	0.11	0.12	0.13	0.16	0.24			0.06	0.7 J	0.03 B	0.07	0.19	0.05	0.05	0.03 B	0.04			
Lead (TRC)	mg/L	0.00054	0.015	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003			<0.0003	0.0018	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003			
Manganese (TRC)	mg/L			0.008	0.008	0.009	0.008	0.007	0.008	0.012			<0.005	0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			
Mercury (TRC)	ug/L			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			0.006	0.009	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			
Molybdenum (TRC)	mg/L			<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002			<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002			
Nickel (TRC)	mg/L	0.016	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
Selenium (TRC)	mg/L	0.005	0.05	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002			
Silver (TRC)	mg/L		0.1	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002			
Strontium (TRC)	mg/L		4	0.139 L	0.124	0.129	0.132	0.127	0.119	0.129			0.0938 D	0.0665 D	0.1 L	0.11 L	0.122 L	0.123	0.126	0.131	0.119			
Thallium (TRC)	mg/L		0.00024	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002			
Uranium (TRC)	mg/L		0.03	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003			0.0006	0.0004	0.0006	0.0006	0.0006	0.0006	0.0006	0.0007	0.0006			
Zinc (TRC)	mg/L	0.037	2	<0.004	<0.002	<0.002	<0.004	<0.004	0.002	<0.002			<0.002	0.006	<0.002	0.002 J	0.009 L	<0.002	<0.004	<0.004	0.003			

Definitions:
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Analyte concentration exceeds the standard for:

	Aquatic Life Standard Chronic*
	Human Health Standard Surface water

Source:
Montana DEQ7 May 2017
Montana DEQ7 June 2019

Station Name	Reporting Units	Aquatic Life Standard Chronic*	Human Health Standard Surface water	SW-4	SW-4	SW-4	SW-4	SW-4	SW-4	SW-4	SW-5	SW-5	SW-5	SW-5	SW-6	SW-6	SW-6	SW-6	SW-6	SW-8	SW-8	SW-8	SW-8	SW-9	SW-9
Sample Date				7/24/19 13:40	8/20/19 13:50	9/23/19 17:00	9/23/19 17:15	10/23/19 17:30	11/11/19 14:20	12/19/19 13:20	3/26/19 11:40	6/19/19 12:50	9/24/19 11:15	11/11/19 16:15	3/27/19 15:30	6/20/19 11:15	6/20/19 11:30	9/23/19 14:00	11/12/19 09:50	3/29/19 17:10	6/20/19 13:15	9/24/19 07:45	11/11/19 16:50	3/26/19 17:40	6/18/19 14:25
Sample ID				BBC-1907-107	BBC-1908-107	BBC-1909-105	BBC-1909-106	BBC-1910-107	BBC-1911-104	BBC-1912-124	BBC-1903-104	BBC-1906-115	BBC-1909-116	BBC-1911-111	BBC-1903-124	BBC-1906-129	BBC-1906-130	BBC-1909-100	BBC-1911-115	BBC-1903-127	BBC-1906-135	BBC-1909-110	BBC-1911-112	BBC-1903-114	BBC-1906-104
Lab Name				Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro	HYDRO	Hydro	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	HYDRO	Hydro	Hydro	Hydro	HYDRO	Hydro
Remarks							Duplicate		No Sample	No Sample	No Sample	No Sample	No Sample	No Sample			Duplicate			No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample
Lab Sample ID				H19070583-001	H19080621-001	H19090608-006	H19090608-007	H19100567-007							H19030548-001	H19060536-009	H19060536-010	H19090608-001	H19110278-010							
Field Parameters																									
Dissolved Oxygen	mg/L			7.2	7.89	8.62		10.57							10.38	8.89		8.94	7.17		8.66	9.09	9.29	9.93	7.88
Field pH	s.u.			8.00	8.17	8.23		8.17							7.72	8.05		8.35	8.09		7.95	8.22	7.64	7.95	8.14
Field Specific Conductivity	umhos/cm			367	366	375		372							137	379		406	407		380	418	431	361	418
Flow	Cubic Ft Sec			0.01	0.01	0.01		0.01	NF-DRY	NF-DRY	NF-DRY	NF-DRY	NF-DRY	NF-DRY	NM-ICE	0.63		0.14	NM-ICE	NF-ICE	1.45	0.68	NM-ICE	0.6	2.32
Staff Gauge	Feet																				0.28	0.03			
Water Temperature	Deg C			14.1	13.7	10.5		1.6							0.9	7.5		10.4	0.08		9.1	7.1	0	1.9	11.1
Physical Parameters																									
pH	s.u.																								
pH Measurement Temp	Deg C																								
Total Dissolved Solids	mg/L			211 D	207 D	218 D	222 D	196 D							100 D	246 D	252 D	238 D	222 D						
Total Suspended Solids	mg/L			8 J	5	<4	<4	<4							16	13	13	23	11 J						
Major Constituents - Commons Ions																									
Alkalinity as CaCO3	mg/L			190	200	200	200	200							65	190	190	220	220						
Calcium (DIS)	mg/L			47	49	44	45	47							15	49	49	48	51						
Chloride	mg/L			<1	<1	<1	<1	1							<1	<1	<1	<1	<1						
Fluoride	mg/L		4	0.1	0.1	0.1	0.1	0.1							<0.1	0.1	0.1	0.2	0.1						
Hardness as CaCO3	mg/L			197	206	189	192	198							65	205	205	208	228						
Magnesium (DIS)	mg/L			19	20	19	19	20							7	20	20	21	25						
Potassium (DIS)	mg/L			1	1	2	2	2							5	<1	<1	1	1						
Sodium (DIS)	mg/L			3	3	3	2	2							<1	3	3	3	3						
Sulfate	mg/L			9	10	8	8	10							3	10	10	11	14						
Nutrients																									
Nitrate + Nitrite as N	mg/L		10	0.08	0.09	0.02	0.02	0.02							0.02	0.03	0.03	0.02	0.08						
Phosphorus (TOT)	mg/L																								
Phosphorus (TRC)	mg/L			0.045	0.011	0.006	0.008	0.008							0.237	0.018 J	0.025 J	0.016	0.024						
Total Nitrogen as N (Persulfate)	mg/L			0.22	0.2	0.1	0.12	0.12							0.78	0.2	0.19	0.16	0.15						
Metals - Trace Constituents																									
Aluminum (DIS)	mg/L	0.087		<0.009	<0.009	<0.009	<0.009	<0.009							0.02	<0.009	<0.009	<0.009	0.024						
Antimony (TRC)	mg/L		0.0056	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005							<0.0005	<0.0005	<0.0005	<0.0005	<0.0005						
Arsenic (TRC)	mg/L	0.15	0.01	<0.001	<0.001	<0.001	<0.001	<0.001							0.001	<0.001	<0.001	<0.001	<0.001						
Barium (TRC)	mg/L		1	0.148	0.15	0.151	0.157	0.13							0.057	0.11	0.111	0.134	0.128						
Beryllium (TRC)	mg/L		0.004	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008							<0.0008	<0.0008	<0.0008	<0.0008	<0.0008						
Cadmium (TRC)	mg/L	0.00026	0.005	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003							0.00003	<0.00003	<0.00003	<0.00003	<0.00003						
Chromium (TRC)	mg/L		0.1	<0.01	<0.01	<0.01	<0.01	<0.01							<0.01	<0.01	<0.01	<0.01	<0.01						
Cobalt (TRC)	mg/L			<0.01	<0.01	<0.01	<0.01	<0.01							<0.01	<0.01	<0.01	<0.01	<0.01						
Copper (TRC)	mg/L	0.0029	1.3	<0.002	<0.002	<0.002	<0.002	<0.002							0.002	<0.002	<0.002	<0.002	<0.002						
Iron (TRC)	mg/L	1		0.39	0.19	0.09	0.1	0.06							0.73	0.64	0.63	0.35	0.37						
Lead (TRC)	mg/L	0.00054	0.015	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003							0.0006	0.0003	0.0003	<0.0003	0.0003						
Manganese (TRC)	mg/L			0.027	0.012	0.01	0.011	0.007							0.026	0.043	0.046	0.017	0.02						
Mercury (TRC)	ug/L			<0.005	<0.005	0.006	0.006	<0.005							0.034	<0.005	<0.005	0.007	<0.005						
Molybdenum (TRC)	mg/L			<0.002	<0.002	<0.002	<0.002	<0.002							<0.002	<0.002	<0.002	<0.002	<0.002						
Nickel (TRC)	mg/L	0.016	0.1	<0.001	<0.001	<0.001	<0.001	<0.001							<0.001	<0.001	<0.001	<0.001	<0.001						
Selenium (TRC)	mg/L	0.005	0.05	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002							<0.0002	<0.0002	<0.0002	<0.0002	<0.0002						
Silver (TRC)	mg/L		0.1	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002							<0.0002	<0.0002	<0.0002	<0.0002	<0.0002						
Strontium (TRC)	mg/L		4	0.186 L	0.183	0.186	0.191	0.16							0.0476 D	0.154 L	0.156 L	0.175	0.165						
Thallium (TRC)	mg/L		0.00024	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002							<0.0002	<0.0002	<0.0002	<0.0002	<0.0002						
Uranium (TRC)	mg/L		0.03	0.0007	0.0008	0.0008	0.0008	0.0007							<0.0002	0.0006	0.0006	0.0006	0.0007						
Zinc (TRC)	mg/L	0.037	2	<0.02	<0.002	<0.004	<0.005	<0.004							0.005	0.006 J	0.003 J	<0.004	<0.002						

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NF-DRY = Not flowing; Dry ground

Analyte concentration exceeds the standard for:

	Aquatic Life Standard Chronic*
	Human Health Standard Surface water

Source:
Montana DEQ7 May 2017
Montana DEQ7 June 2019

Station Name	Reporting Units	Aquatic Life Standard Chronic*	Human Health Standard Surface water	SW-9	SW-9	SW-10	SW-10	SW-10	SW-10	SW-11	SW-11	SW-11	SW-11	SW-14	SW-14	SW-14	SW-14	SW-14	SW-14	SW-14	SW-14	SW-14	SW-14
Sample Date				9/24/19 09:30	11/11/19 15:00	3/26/19 18:30	6/18/19 15:50	9/24/19 09:55	11/11/19 08:55	3/26/19 12:30	6/18/19 13:40	9/24/19 08:15	11/11/19 14:55	1/10/19 11:00	1/10/19 11:15	2/22/19 12:00	3/27/19 15:55	4/23/19 17:30	5/30/19 10:10	5/30/19 10:20	6/19/19 18:15	7/25/19 12:10	8/21/19 11:20	9/23/19 16:45
Sample ID				BBC-1909-112	BBC-1911-107	BBC-1903-115	BBC-1906-107	BBC-1909-113	BBC-1911-114	BBC-1903-105	BBC-1906-103	BBC-1909-111	BBC-1911-106	BBC-1901-103	BBC-1901-104	BBC-1902-104	BBC-1903-125	BBC-1904-112	BBC-1905-117	BBC-1905-118	BBC-1906-126	BBC-1907-125	BBC-1908-124	BBC-1909-104
Lab Name				Hydro	Hydro	HYDRO	Hydro	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
Remarks				No Sample	No Sample	No Sample	No Sample	No Sample	No Sample						Duplicate					Duplicate				
Lab Sample ID										H19030477-001	H19060536-001	H19090658-013	H19110278-005	H19010185-004	H19010185-005	H19020363-003	H19030548-002	H19040763-015	H19050914-003	H19050914-004	H19060536-007	H19070583-006	H19080621-005	H19090608-005
Field Parameters																								
Dissolved Oxygen	mg/L			9.26	14.85	10.32	7.63	9.34	11.89	10.92	8.31	9.41	12.19	11.28		8.24	10.41	8.43	10.99		8.22		8.94	10.15
Field pH	s.u.			8.3	7.44	8.10	8.25	8.32	8.08	8.23	8.27	8.42	8.27	7.86		6.85 A	7.81	7.98	8.02		7.99		8.08	8.38
Field Specific Conductivity	umhos/cm			434	448	238	414	425	443	343	392	424	458	394		364	269	274	387		392		399	402
Flow	Cubic Ft Sec			0.59	NM-ICE	NM-ICE	1.66	0.4	NM-ICE	NM-ICE	2.68	0.93	NM-ICE	NM-ICE		NM-ICE	1.14	15.54	5.87		6.53	4.03	1.33	1.17
Staff Gauge	Feet							0.87			0.64	0.35					0.4	1.05	0.8		0.8	0.7	0.47	0.59
Water Temperature	Deg C			7.2	0.11	0.41	13.5	7.1	0.01	0.1	10.1	8.1	0.04	-0.59		0.04	3.2	10	8.3		11.7		14	13.3
Physical Parameters																								
pH	s.u.															7.8 H								
pH Measurement Temp	Deg C															15.4								
Total Dissolved Solids	mg/L									215 D	226 D	243 D	262 D	219 D	229 D	229 D	157 D	167 D	222 D	216 D	266 D	217 D	229 D	239 D
Total Suspended Solids	mg/L									6	10	7	<4	<4	<4	<4	<4	18 J	<4	<4	5	<4	<4	5
Major Constituents - Commons Ions																								
Alkalinity as CaCO3	mg/L									170	190	220	230	220	220	220	130	130	200	200	190	200	220	220
Calcium (DIS)	mg/L									44	50	53	58	61	59	60	34	33	53	49	53	55	51	52
Chloride	mg/L									1	<1	1	1	2	2	2	2	1	2	2	4	2	2	2
Fluoride	mg/L		4							0.2	0.1	0.2	0.2	0.2	0.2	0.2	<0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2
Hardness as CaCO3	mg/L									193	208	228	261	239	230	232	134	136	210	196	203	206	202	207
Magnesium (DIS)	mg/L									20	20	23	28	21	20	20	12	13	19	18	17	17	18	19
Potassium (DIS)	mg/L									2	1	1	1	1	1	1	4	2	1	1	1	1	1	1
Sodium (DIS)	mg/L									2	2	3	3	3	3	3	1	2	2	2	2	2	3	2
Sulfate	mg/L									25	16	22	27	9	9	9	7	8	11	11	8	6	7	7
Nutrients																								
Nitrate + Nitrite as N	mg/L		10							0.19	0.09	0.08	0.12	0.16	0.16	0.19	0.05	0.04	0.04	0.05	0.05	<0.01	0.02	0.01
Phosphorus (TOT)	mg/L																0.105							
Phosphorus (TRC)	mg/L									0.046	0.03 J	0.012	0.01	0.005	0.004	0.01	0.105	0.028	0.008	0.008	0.011 J	0.005	0.009	0.009
Total Nitrogen as N (Persulfate)	mg/L									0.47	0.26	0.16	0.21	0.24	0.24	0.29	0.57	0.37	0.2	0.21	0.2	0.11	0.12	0.13
Metals - Trace Constituents																								
Aluminum (DIS)	mg/L	0.087								0.014	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	0.012	0.029	<0.009	<0.009	<0.009	0.021 J	<0.009	<0.009
Antimony (TRC)	mg/L		0.0056							<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (TRC)	mg/L	0.15	0.01							<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Barium (TRC)	mg/L		1							0.101	0.095	0.11	0.109	0.12	0.122	0.122	0.077	0.081	0.103	0.103	0.112	0.109	0.12	0.121
Beryllium (TRC)	mg/L		0.004							<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Cadmium (TRC)	mg/L	0.00026	0.005							<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Chromium (TRC)	mg/L		0.1							<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt (TRC)	mg/L									<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper (TRC)	mg/L	0.0029	1.3							<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Iron (TRC)	mg/L	1								0.32	0.44	0.16	0.09	<0.02	<0.02	0.04	0.13	0.15 J	0.06 B	0.06 B	0.11	0.07	0.06	0.11
Lead (TRC)	mg/L	0.00054	0.015							0.0003	0.0004	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Manganese (TRC)	mg/L									0.013	0.027	0.01	<0.005	<0.005	<0.005	0.009	0.006	<0.005	0.005	0.005	0.007	0.007	0.008	0.006
Mercury (TRC)	ug/L									<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.018	0.009	0.005	0.005	<0.005	<0.005	<0.005	0.006
Molybdenum (TRC)	mg/L									<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Nickel (TRC)	mg/L	0.016	0.1							<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
Selenium (TRC)	mg/L	0.005	0.05							<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Silver (TRC)	mg/L		0.1							<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Strontium (TRC)	mg/L		4							0.136 D	0.178 L	0.186	0.186	0.124 D	0.126 D	0.125 D	0.0749 D	0.079 D	0.115 L	0.116 L	0.127 L	0.125 L	0.122	0.127
Thallium (TRC)	mg/L		0.00024							<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Uranium (TRC)	mg/L		0.03							0.001	0.0009	0.0009	0.0011	0.0005	0.0006	0.0006	0.0003	0.0004	0.0005	0.0005	0.0005	0.0004	0.0005	0.0005
Zinc (TRC)	mg/L	0.037	2							0.002	0.004 J	<0.005	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.04	<0.002	<0.004

Definitions:
J = Field Duplicate sample exceeded QA/QC comparison control limits
U = Field Blank sample exceeded QA/QC comparison control limits
H = Holding time exceeded QA/QC comparison control limits
D = Reporting limit increased due to sample matrix interference
L = The lowest available reporting limit was used per method used for analysis
NM = Not measured
NF-ICE = Not flowing; ice on ground
NM-ICE = Not measured; ice prohibitive
NF-DRY = Not flowing; Dry ground

Analyte concentration exceeds the standard for:

	Aquatic Life Standard Chronic*
	Human Health Standard Surface water

Source:
Montana DEQ7 May 2017
Montana DEQ7 June 2019

Station Name	Reporting Units	Aquatic Life Standard Chronic*	Human Health Standard Surface water	SW-14	SW-14	SW-14	SW-17	SW-17	SW-17	SW-17	SW-17	SW-17	SW-17	SW-17	SW-17	SW-17	SW-17	SW-17	SW-17	SW-18	SW-18	SW-18	SW-18
Sample Date				10/23/19 15:15	11/11/19 14:10	12/20/19 09:20	1/10/19 11:45	2/22/19 11:15	3/27/19 09:35	4/24/19 09:45	5/30/19 09:55	6/19/19 15:10	7/25/19 11:45	7/25/19 12:00	8/21/19 11:00	9/23/19 17:45	10/23/19 14:50	11/11/19 15:50	11/11/19 16:00	12/19/19 16:30	1/10/19 11:25	2/22/19 13:15	3/26/19 14:30	4/23/19 15:35
Sample ID				BBC-1910-102	BBC-1911-103	BBC-1912-117	BBC-1901-108	BBC-1902-102	BBC-1903-121	BBC-1904-115	BBC-1905-116	BBC-1906-122	BBC-1907-123	BBC-1907-124	BBC-1908-123	BBC-1909-109	BBC-1910-101	BBC-1911-109	BBC-1911-110	BBC-1912-113	BBC-1901-106	BBC-1902-108	BBC-1903-109	BBC-1904-109
Lab Name				Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro	HYDRO	Energy Labs
Remarks								No Sample						Duplicate					Duplicate		No Sample	No Sample	No Sample	
Lab Sample ID				H19100567-003	H19110278-004	H19120487-004	H19010185-007		H19030477-004	H19040763-018	H19050914-002	H19060536-005	H19070583-004	H19070583-005	H19080621-004	H19090608-009	H19100567-002	H19110278-007	H19110278-008	H19120487-001				H19040763-013
Field Parameters																							
Dissolved Oxygen	mg/L			12.64	11.53	9.28	11.38		9.87	9.88	12.9	8.46	8.71		9.7	9.4	11.46	9.26		10.8				0
Field pH	s.u.			8.51	8.1	7.94	8.05		7.65	7.80	8.07	8.14	8.09		8.20	8.35	8.39	7.54		8.19				8.19
Field Specific Conductivity	umhos/cm			384	414	428	430		420	326	360	458	462		431	450	488.5	463		434				75
Flow	Cubic Ft Sec			1.28	0.58	0.39	NM-ICE	NF-DRY	NM-ICE	4.36	1.37	0.75	0.15		0.25	0.24	0.24	NM-ICE		NM-ICE	NF-DRY	NF-DRY	NF-DRY	NF-DRY
Staff Gauge	Feet																							
Water Temperature	Deg C			5	3.9	2.3	0.43		1.7	2.9	7.01	13.9	11.6		9.9	10.5	3.8	0.04		0.6				1
Physical Parameters																							
pH	s.u.																						
pH Measurement Temp	Deg C																						
Total Dissolved Solids	mg/L			209 D	240 D	233 D	235 D		243 D	191 D	201 D	314 D	266 D	266 D	256 D	274 D	280 D	267 D	267 D	236 D				53 D
Total Suspended Solids	mg/L			<4	10 J	<4	<4		<4	54 J	<4	6	19 J	12 J	5	<4	<4	<4	<4	4				<4
Major Constituents - Commons Ions																							
Alkalinity as CaCO3	mg/L			210	220	220	210		170	150	170	190	230	230	210	220	210	210	210	200				39
Calcium (DIS)	mg/L			52	57	59	56		49	38	45	56	60	61	50	52	61	56	55	55				8
Chloride	mg/L			2	2	2	5		11	7	5	14	4	4	5	6	13	7	7	6				<1
Fluoride	mg/L		4	0.2	0.2	0.2	0.2		0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2				<0.1
Hardness as CaCO3	mg/L			215	245	227	246		211	167	194	234	247	250	219	226	259	251	249	235				35
Magnesium (DIS)	mg/L			21	25	19	25		22	17	20	23	23	24	23	23	26	27	27	24				3
Potassium (DIS)	mg/L			1	1	1	1		4	2	<1	1	1	<1	1	1	1	1	1	1				2
Sodium (DIS)	mg/L			2	2	3	3		5	2	2	3	3	3	3	3	3	3	3	2				<1
Sulfate	mg/L			11	11	10	35		30	16	18	23	20	20	25	23	39	31	31	30				<1
Nutrients																							
Nitrate + Nitrite as N	mg/L		10	0.02	0.08	0.13	0.18		0.16	0.07	0.03	0.03	0.11	0.11	0.11	0.04	0.03	0.11	0.11	0.15				0.03
Phosphorus (TOT)	mg/L					<0.003														0.009				
Phosphorus (TRC)	mg/L			0.008	0.012		0.007		0.056	0.023	0.01	0.025 J	0.011	0.013	0.01	0.007	0.01	0.006	0.007					0.095
Total Nitrogen as N (Persulfate)	mg/L			0.14	0.2	0.23	0.25		0.7	0.33	0.2	0.49	0.37	0.35	0.23	0.14	0.15	0.21	0.21	0.25				0.39
Metals - Trace Constituents																							
Aluminum (DIS)	mg/L	0.087		<0.009	<0.009	<0.009	<0.009		<0.009	0.012	<0.009	<0.009	0.021 J	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009				<0.009
Antimony (TRC)	mg/L		0.0056	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005				<0.0005
Arsenic (TRC)	mg/L	0.15	0.01	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
Barium (TRC)	mg/L		1	0.109	0.122	0.124	0.157		0.144	0.112	0.122	0.152	0.157	0.157	0.159	0.174	0.172	0.153	0.156	0.157				0.019
Beryllium (TRC)	mg/L		0.004	<0.0008	<0.0008	<0.0008	<0.0008		<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008				<0.0008
Cadmium (TRC)	mg/L	0.00026	0.005	<0.00003	<0.00003	<0.00003	<0.00003		<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003				0.00004
Chromium (TRC)	mg/L		0.1	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01
Cobalt (TRC)	mg/L			<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01
Copper (TRC)	mg/L	0.0029	1.3	<0.002	<0.002	<0.002	<0.002		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002				<0.002
Iron (TRC)	mg/L	1		0.11	0.17	0.03	0.07		0.26	0.11 J	0.16	0.31	0.37	0.36	0.21	0.17	0.35	0.11	0.12	0.21				0.17 J
Lead (TRC)	mg/L	0.00054	0.015	<0.0003	<0.0003	<0.0003	<0.0003		<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003				0.0003
Manganese (TRC)	mg/L			<0.005	<0.005	<0.005	0.012		0.034	0.012	0.016	0.032	0.041	0.041	0.024	0.016	0.031	0.029	0.029	0.019				0.011
Mercury (TRC)	ug/L			<0.005	<0.005	<0.005	<0.005		0.009	0.005	0.007	0.007	0.007	0.007	<0.005	0.006	<0.005	<0.005	<0.005	<0.005				0.01
Molybdenum (TRC)	mg/L			<0.002	<0.002	<0.002	<0.002		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002				<0.002
Nickel (TRC)	mg/L	0.016	0.1	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
Selenium (TRC)	mg/L	0.005	0.05	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002				<0.0002
Silver (TRC)	mg/L		0.1	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002				<0.0002
Strontium (TRC)	mg/L		4	0.122	0.128	0.133	0.146 D		0.12 D	0.0854 D	0.111 L	0.145 L	0.172 L	0.169 L	0.138	0.154	0.154	0.144	0.145	0.146				0.0172 D
Thallium (TRC)	mg/L		0.00024	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002				<0.0002
Uranium (TRC)	mg/L		0.03	0.0005	0.0006	0.0005	0.0007		0.0006	0.0005	0.0005	0.0008	0.0005	0.0005	0.0006	0.0006	0.0006	0.0007	0.0007	0.0007				<0.0002
Zinc (TRC)	mg/L	0.037	2	<0.004	<0.002	<0.002	<0.002		0.003	0.002	<0.002	0.004 J	0.005 L	0.005 L	<0.002	<0.004	<0.004	<0.002	<0.002	<0.002				0.003

Definitions:
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NM = Not measured
NF-ICE = Not flowing; ice on ground
NM-ICE = Not measured; ice prohibitive
NF-DRY = Not flowing; Dry ground

Analyte concentration exceeds the standard for:

	Aquatic Life Standard Chronic*
	Human Health Standard Surface water

Source:
Montana DEQ7 May 2017
Montana DEQ7 June 2019

Station Name	Reporting Units	Aquatic Life Standard Chronic*	Human Health Standard Surface water	SW-18	SW-18	SW-18	SW-18	SW-18	SW-18	SW-18	SW-18	SW-19	SW-19	SW-19	SW-19	SW-19	SW-19	SW-19	SW-19	SW-19	USGS-SC1	USGS-SC1	USGS-SC1	USGS-SC1	USGS-SC1
Sample Date				5/29/19 15:35	6/20/19 11:45	7/24/19 14:55	8/20/19 17:30	9/23/19 17:20	10/23/19 17:45	11/11/19 14:25	12/19/19 13:25	4/23/19 13:55	5/29/19 11:50	6/18/19 15:35	7/24/19 12:40	8/20/19 12:55	9/24/19 10:10	10/24/19 11:00	11/11/19 08:35	12/19/19 10:50	1/10/19 10:40	2/22/19 12:40	3/28/19 09:45	4/24/19 11:00	5/30/19 11:10
Sample ID				BBC-1905-111	BBC-1906-131	BBC-1907-111	BBC-1908-116	BBC-1909-107	BBC-1910-108	BBC-1911-105	BBC-1912-126	BBC-1904-105	BBC-1905-101	BBC-1906-106	BBC-1907-105	BBC-1908-105	BBC-1909-114	BBC-1910-114	BBC-1911-113	BBC-1912-101	BBC-1901-102	BBC-1902-106	BBC-1903-130	BBC-1904-117	BBC-1905-120
Lab Name				Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
Remarks				No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample					
Lab Sample ID																					H19010185-003	H19020363-005	H19030548-006	H19040763-020	H19050914-006
Field Parameters																									
Dissolved Oxygen	mg/L											9.27	9.05	7.99	8.48	8.72	9.55	11.33	9.11	11.08	11.74	11.07	11.21	11.09	12.86
Field pH	s.u.											8.03	8.27	8.23	8.29	8.36	8.32	8.39	8.16	8.35	7.85	6.67 A	8.11	8.16	8.41
Field Specific Conductivity	umhos/cm											244	364	381	392	396	404	405	412	408	341	263	366	272	251
Flow	Cubic Ft Sec			NF-DRY	NF-DRY	NF-DRY	NF-DRY	NF-DRY	NF-DRY	NF-DRY	NF-DRY	NM	1.34	0.79	0.26	0.14	0.14	0.1	NM-ICE	NM-ICE	NM	NM-ICE	NM-ICE	NM-ICE	NM
Staff Gauge	Feet																0.14								
Water Temperature	Deg C											6.9	11.3	12.4	13.5	14.2	7.1	2	0.49	1.1	-0.83	0.01	0.1	1.6	4.6
Physical Parameters																									
pH	s.u.																					8.2 H			
pH Measurement Temp	Deg C																					15.8			
Total Dissolved Solids	mg/L																				188 D	195 D	196 D	164 D	132 D
Total Suspended Solids	mg/L																				<4	<4	4	40 J	19
Major Constituents - Commons Ions																									
Alkalinity as CaCO3	mg/L																				190	190	180	130	130
Calcium (DIS)	mg/L																				55	56	57	38	37
Chloride	mg/L																				1	1	3	4	1
Fluoride	mg/L		4																		<0.1	<0.1	<0.1	<0.1	<0.1
Hardness as CaCO3	mg/L																				196	199	199	134	128
Magnesium (DIS)	mg/L																				14	14	14	9	9
Potassium (DIS)	mg/L																				1	1	1	1	1
Sodium (DIS)	mg/L																				2	2	3	3	2
Sulfate	mg/L																				8	8	7	5	5
Nutrients																									
Nitrate + Nitrite as N	mg/L		10																		0.11	0.11	0.08	0.05	<0.01
Phosphorus (TOT)	mg/L																								
Phosphorus (TRC)	mg/L																				0.005	0.011	0.007	0.054	0.018
Total Nitrogen as N (Persulfate)	mg/L																				0.15	0.16	0.14	0.3	0.12
Metals - Trace Constituents																									
Aluminum (DIS)	mg/L	0.087																			<0.009	<0.009	<0.009	0.124	0.023
Antimony (TRC)	mg/L		0.0056																		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (TRC)	mg/L	0.15	0.01																		<0.001	<0.001	<0.001	<0.001	<0.001
Barium (TRC)	mg/L		1																		0.068	0.065	0.068	0.072	0.061
Beryllium (TRC)	mg/L		0.004																		<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Cadmium (TRC)	mg/L	0.00026	0.005																		<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Chromium (TRC)	mg/L		0.1																		<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt (TRC)	mg/L																				<0.01	<0.01	<0.01	<0.01	<0.01
Copper (TRC)	mg/L	0.0029	1.3																		<0.002	<0.002	<0.002	<0.002	<0.002
Iron (TRC)	mg/L	1																			0.11	0.13	0.19	1.22	0.67
Lead (TRC)	mg/L	0.00054	0.015																		<0.0003	<0.0003	<0.0003	0.0007	0.0003
Manganese (TRC)	mg/L																				0.007	0.008	0.01	0.033	0.013
Mercury (TRC)	ug/L																				<0.005	<0.005	<0.005	0.011	0.01 D
Molybdenum (TRC)	mg/L																				<0.002	<0.002	<0.002	<0.002	<0.002
Nickel (TRC)	mg/L	0.016	0.1																		<0.001	<0.001	<0.001	0.002	0.002
Selenium (TRC)	mg/L	0.005	0.05																		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Silver (TRC)	mg/L		0.1																		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Strontium (TRC)	mg/L		4																		0.148 D	0.144 D	0.148 D	0.119 D	0.119 L
Thallium (TRC)	mg/L		0.00024																		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Uranium (TRC)	mg/L		0.03																		0.0004	0.0004	0.0005	0.0003	0.0003
Zinc (TRC)	mg/L	0.037	2																		<0.002	<0.002	<0.002	0.004	0.002 B

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Analyte concentration exceeds the standard for:

	Aquatic Life Standard Chronic*
	Human Health Standard Surface water

Source:
Montana DEQ7 May 2017
Montana DEQ7 June 2019

Station Name	Reporting Units	Aquatic Life Standard Chronic*	Human Health Standard Surface water	USGS-SC1	USGS-SC1	USGS-SC1	USGS-SC1	USGS-SC1	USGS-SC1	USGS-SC1	USGS-SC1
Sample Date				6/19/19 10:30	7/25/19 13:15	8/21/19 12:35	9/23/19 16:15	10/23/19 16:25	10/23/19 16:50	11/11/19 13:50	12/20/19 09:50
Sample ID				BBC-1906-111	BBC-1907-127	BBC-1908-127	BBC-1909-103	BBC-1910-104	BBC-1910-105	BBC-1911-102	BBC-1912-119
Lab Name				Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
Remarks									Duplicate		
Lab Sample ID				H19060536-004	H19070583-008	H19080621-008	H19090608-004	H19100567-005	H19100567-006	H19110278-003	H19120487-006
Field Parameters											
Dissolved Oxygen	mg/L			9.98		9.48	9.8	11.34		13.63	11.26
Field pH	s.u.			8.35		8.45	8.55	8.62		8.02	8.29
Field Specific Conductivity	umhos/cm			306		347	350	343		374	362
Flow	Cubic Ft Sec			62.28	39.73	24.42	18.16	16.12		NM-ICE	NM-ICE
Staff Gauge	Feet										
Water Temperature	Deg C			6.9		12.5	8.9	1.9		0.01	0.37
Physical Parameters											
pH	s.u.										
pH Measurement Temp	Deg C										
Total Dissolved Solids	mg/L			209 D	188 D	203 D	206 D	184 D	181 D	203 D	201 D
Total Suspended Solids	mg/L			10	<4	<4	<4	<4	<4	10 J	<4
Major Constituents - Commons Ions											
Alkalinity as CaCO3	mg/L			150	180	190	190	190	180	200	190
Calcium (DIS)	mg/L			45	50	51	50	54	54	58	55
Chloride	mg/L			1	1	1	1	2	2	2	2
Fluoride	mg/L		4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hardness as CaCO3	mg/L			158	175	179	178	189	187	210	191
Magnesium (DIS)	mg/L			11	12	13	13	13	13	16	13
Potassium (DIS)	mg/L			1	1	1	1	1	1	1	1
Sodium (DIS)	mg/L			2	2	2	2	2	2	2	2
Sulfate	mg/L			5	5	6	5	7	7	8	8
Nutrients											
Nitrate + Nitrite as N	mg/L		10	0.01	0.01	0.01	<0.01	0.01	0.02	0.06	0.09
Phosphorus (TOT)	mg/L										<0.003
Phosphorus (TRC)	mg/L			0.009 J	0.004	0.003	<0.003	<0.003	0.003	0.01	
Total Nitrogen as N (Persulfate)	mg/L			0.1	0.05	0.07	0.05	0.06	0.06	0.11	0.13
Metals - Trace Constituents											
Aluminum (DIS)	mg/L	0.087		<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009
Antimony (TRC)	mg/L		0.0056	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (TRC)	mg/L	0.15	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Barium (TRC)	mg/L		1	0.068	0.08	0.076	0.074	0.065	0.066	0.076	0.067
Beryllium (TRC)	mg/L		0.004	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Cadmium (TRC)	mg/L	0.00026	0.005	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Chromium (TRC)	mg/L		0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt (TRC)	mg/L			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper (TRC)	mg/L	0.0029	1.3	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Iron (TRC)	mg/L	1		0.16	0.07	0.08	0.11	0.1	0.1	0.34	0.11
Lead (TRC)	mg/L	0.00054	0.015	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Manganese (TRC)	mg/L			0.008	0.006	0.007	0.007	0.006	0.007	0.015	0.006
Mercury (TRC)	ug/L			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Molybdenum (TRC)	mg/L			<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Nickel (TRC)	mg/L	0.016	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium (TRC)	mg/L	0.005	0.05	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Silver (TRC)	mg/L		0.1	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Strontium (TRC)	mg/L		4	0.141 L	0.15 L	0.15	0.154	0.146	0.144	0.152	0.142
Thallium (TRC)	mg/L		0.00024	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Uranium (TRC)	mg/L		0.03	0.0003	0.0003	0.0004	0.0004	0.0003	0.0004	0.0004	0.0004
Zinc (TRC)	mg/L	0.037	2	0.002 J	<0.004	<0.002	<0.004	<0.004	<0.004	<0.002	<0.002

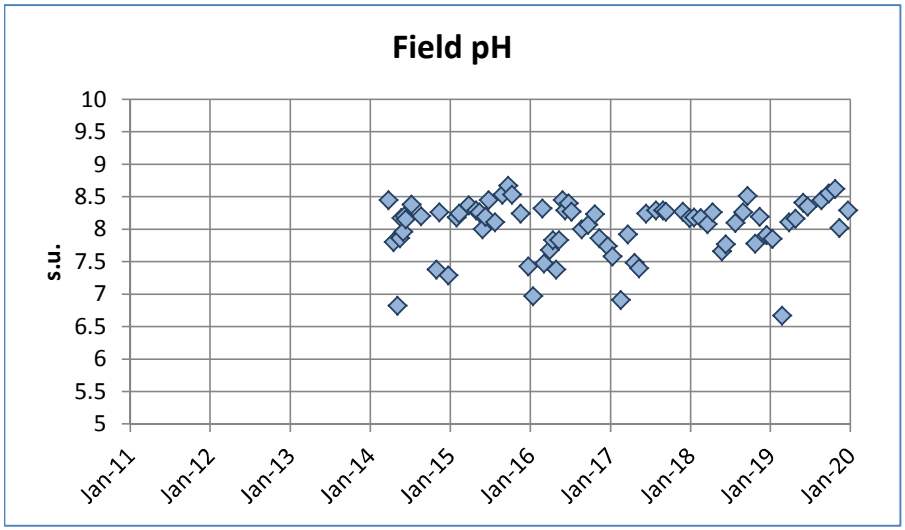
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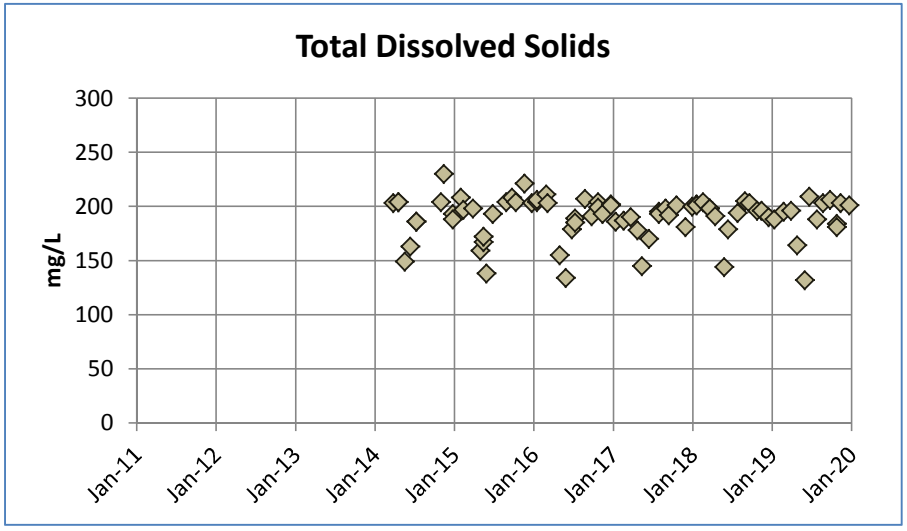
Analyte concentration exceeds the standard for:

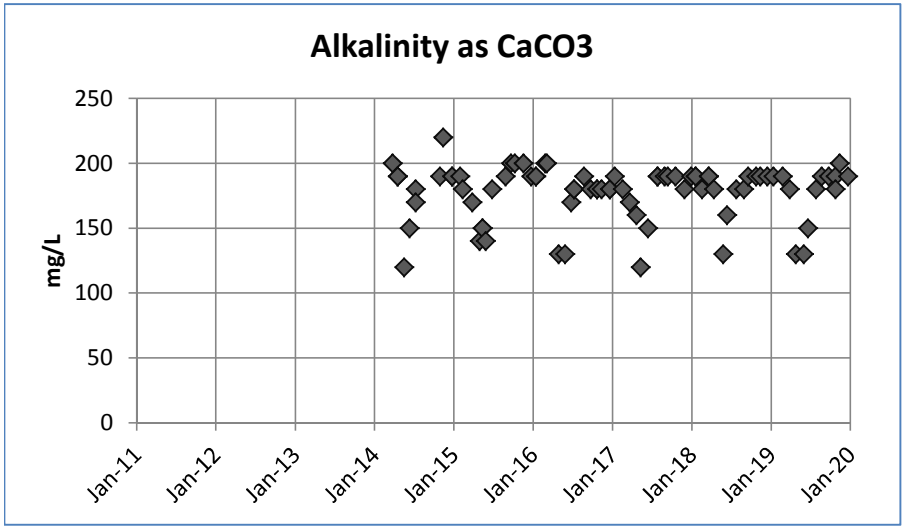
	Aquatic Life Standard Chronic*
	Human Health Standard Surface water

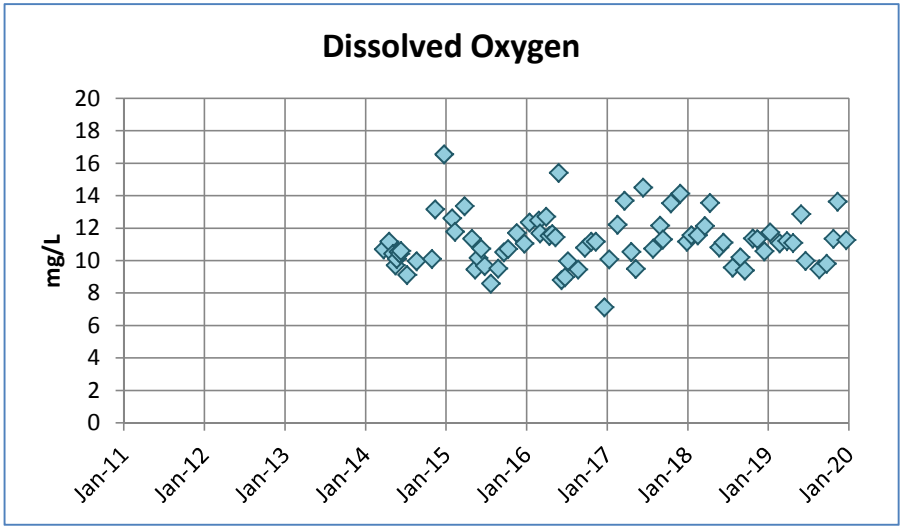
Source:
Montana DEQ7 May 2017
Montana DEQ7 June 2019

USGS-SC1





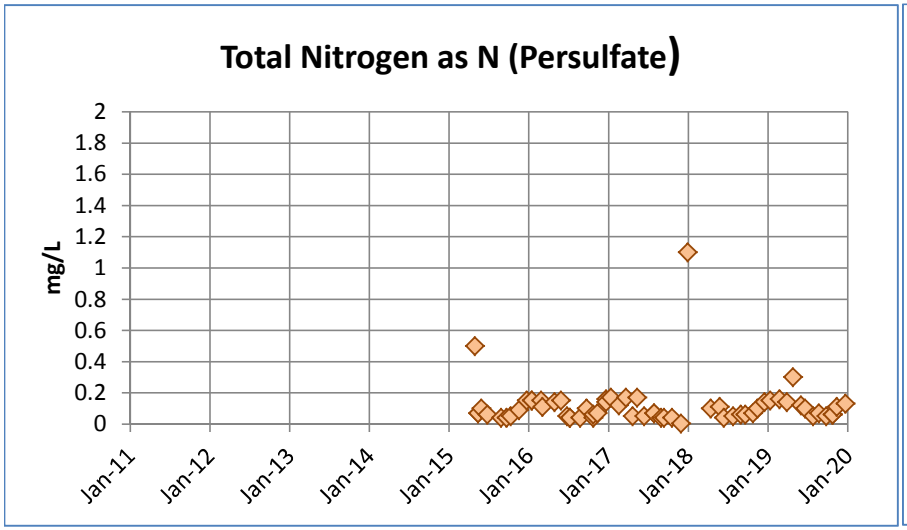


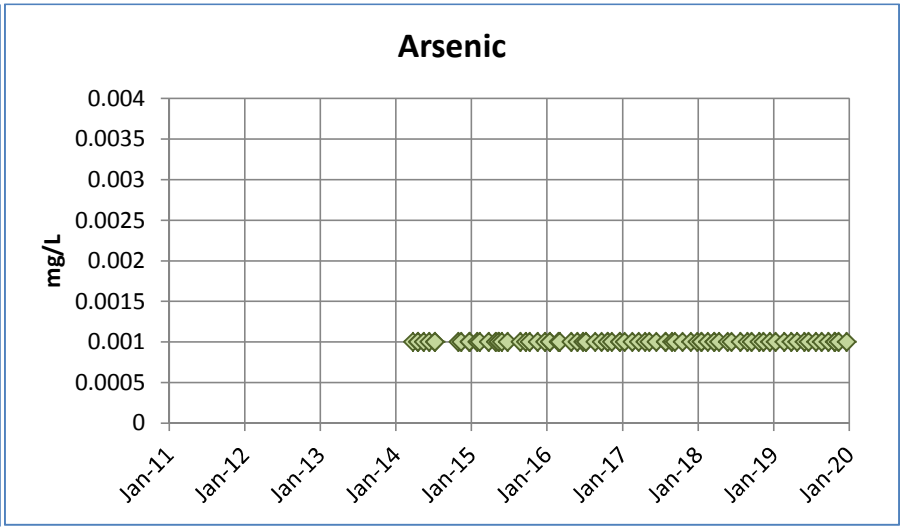


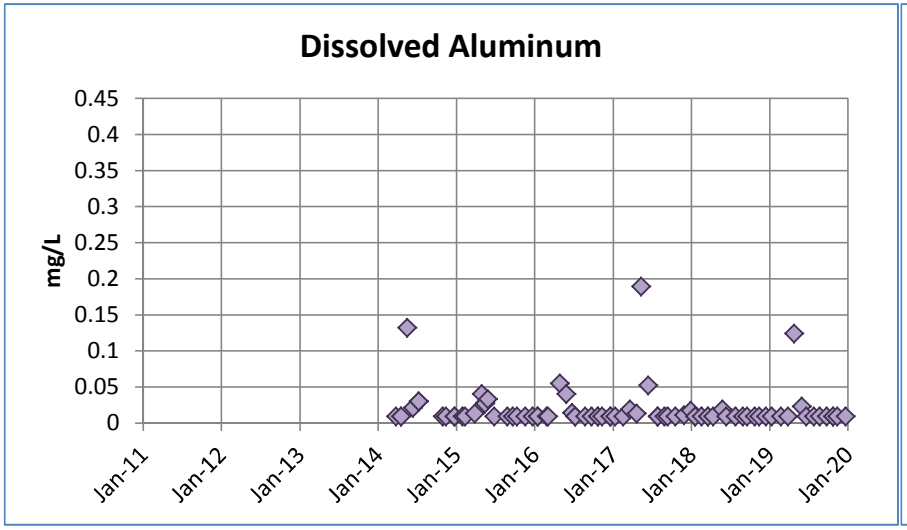
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Consulting Scientists and Engineers

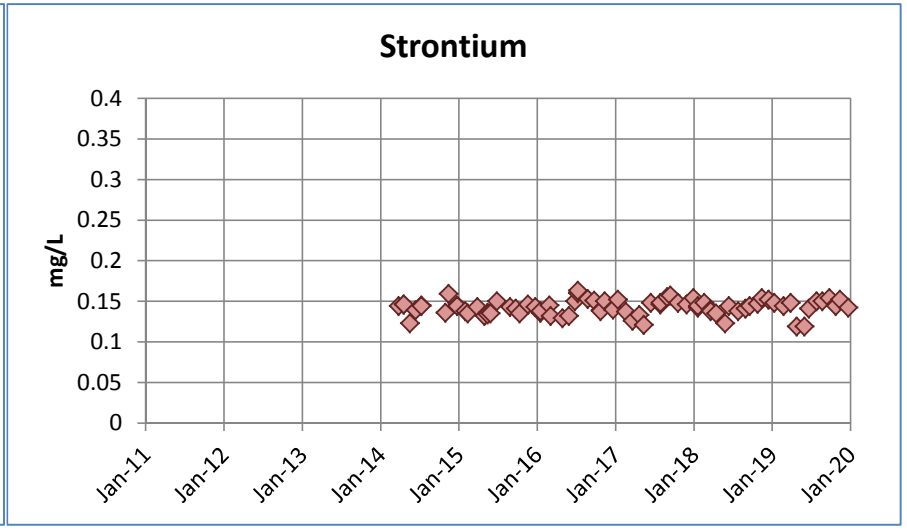
USGS-SC1 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

USCS-SC1





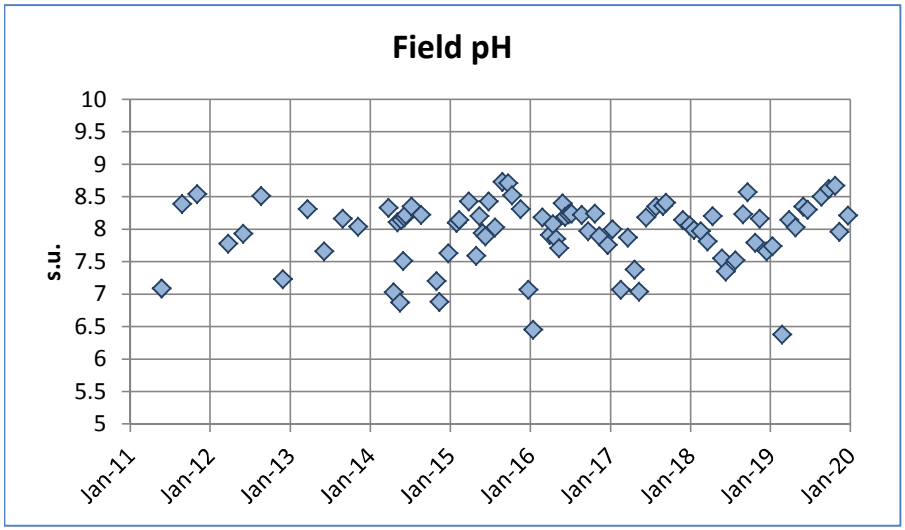


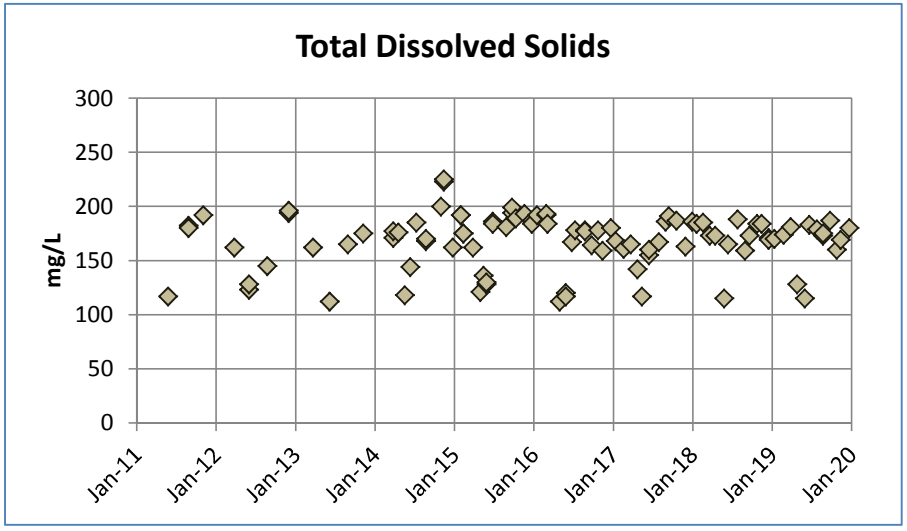


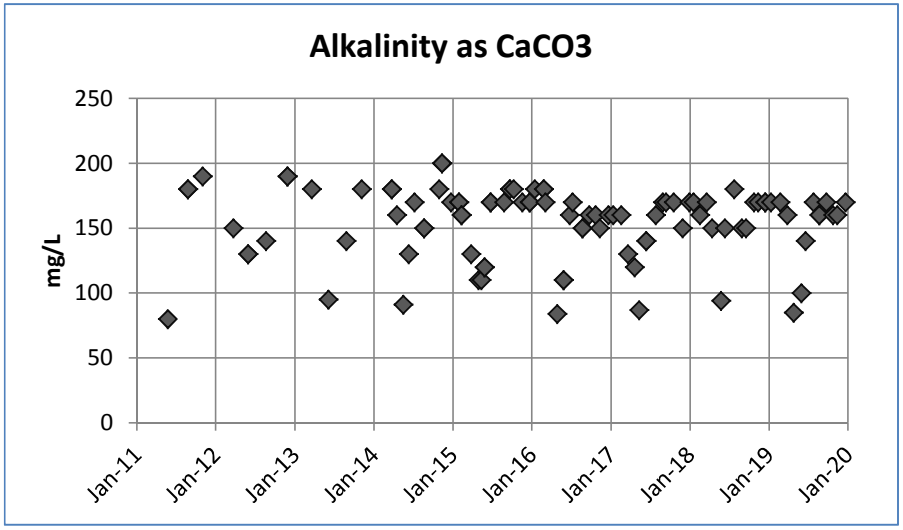
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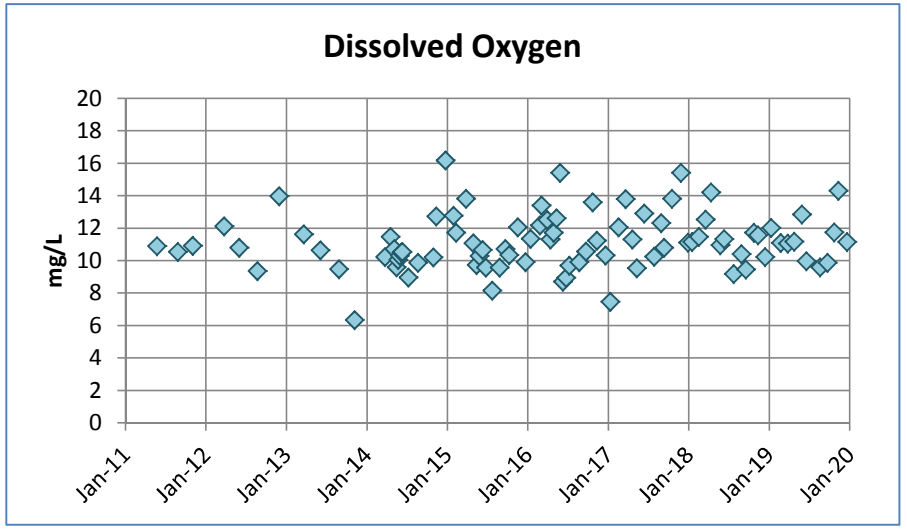
USGS-SC1 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SW-2





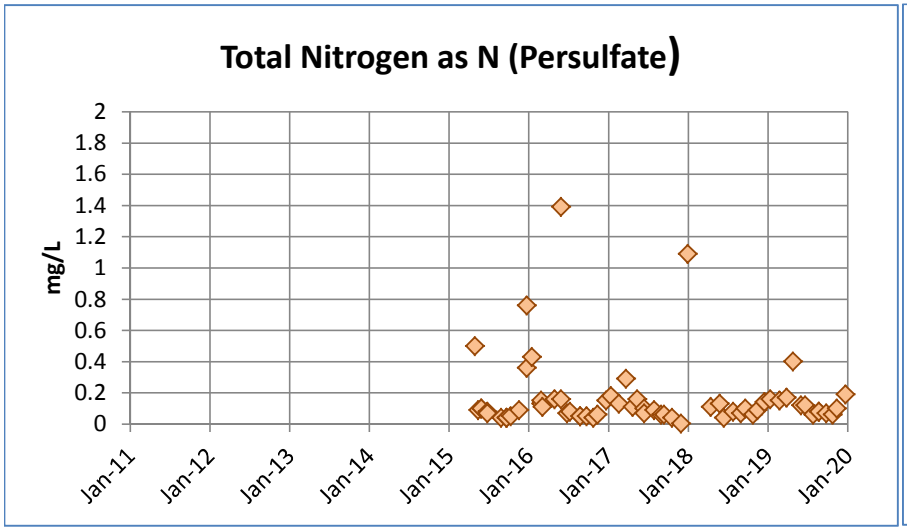


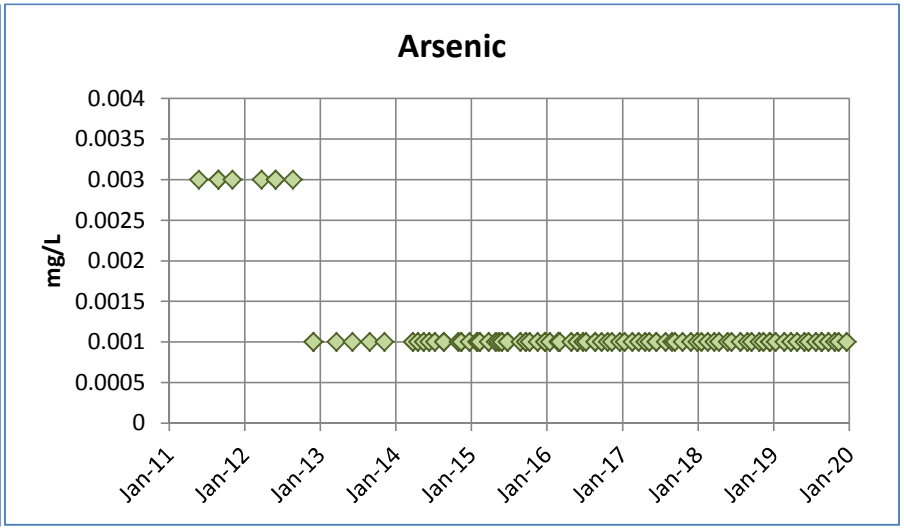


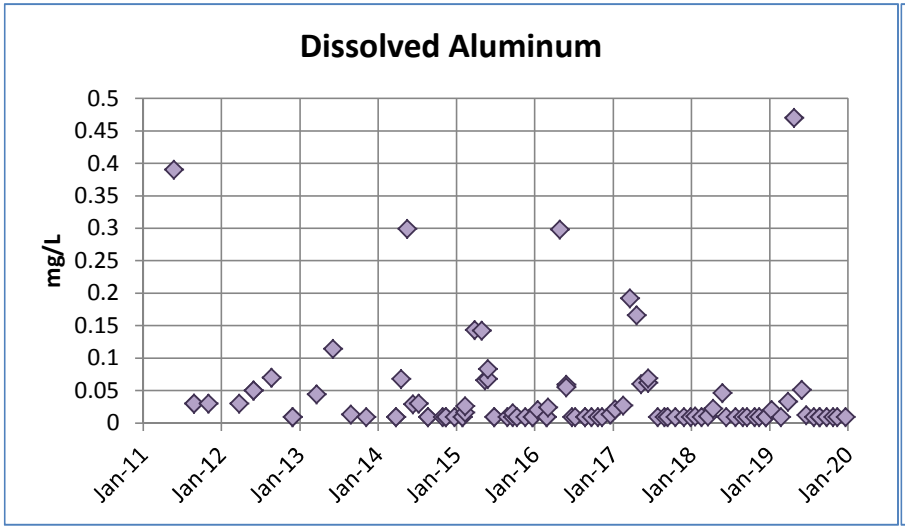
Hydrometrics, Inc.
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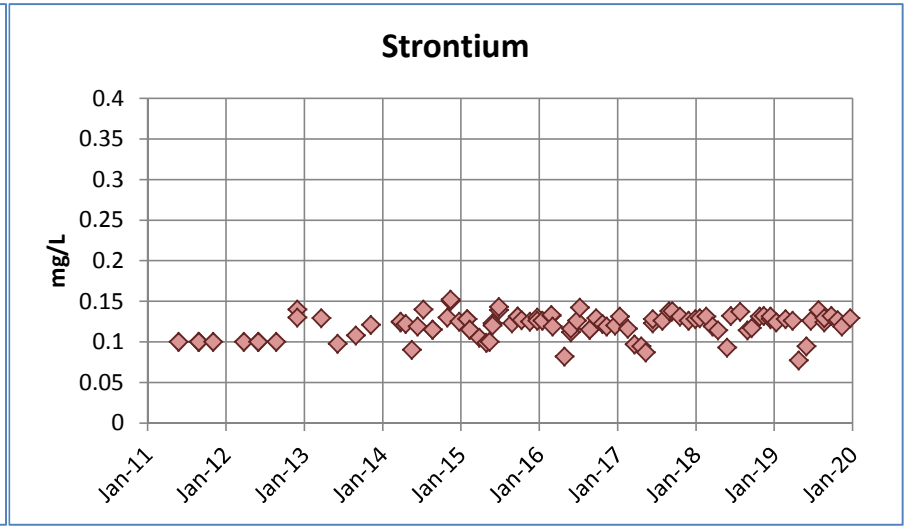
SW-2 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SW-2





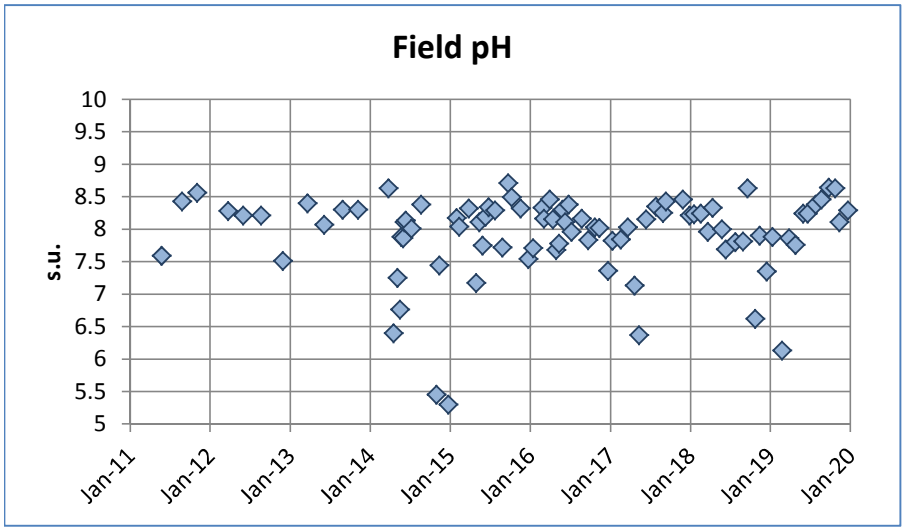


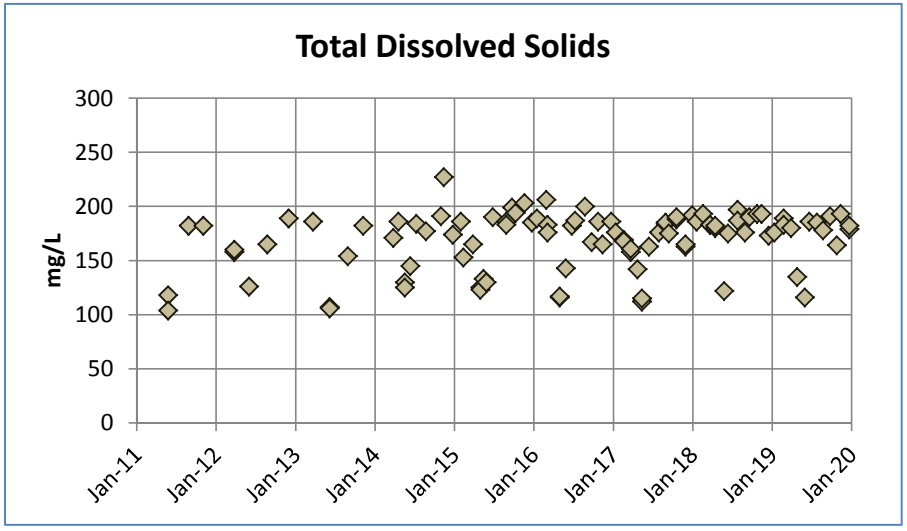


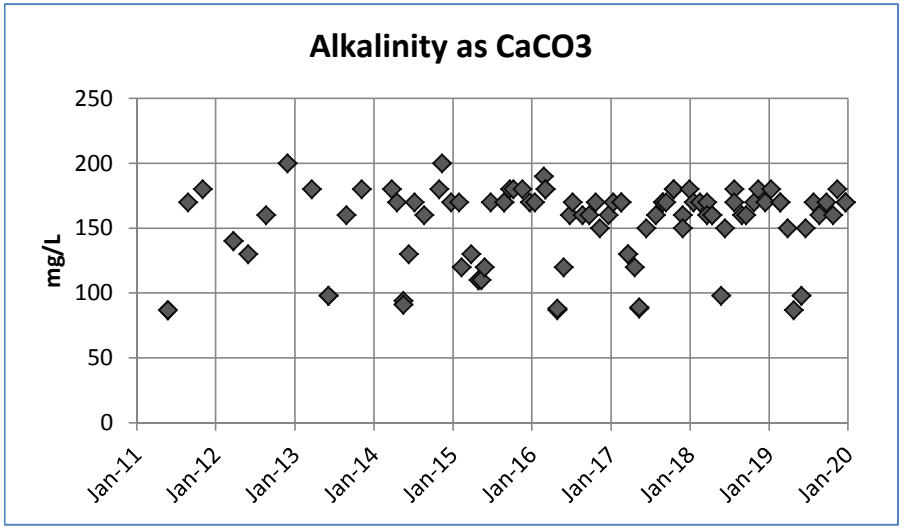
Hydrometrics, Inc.
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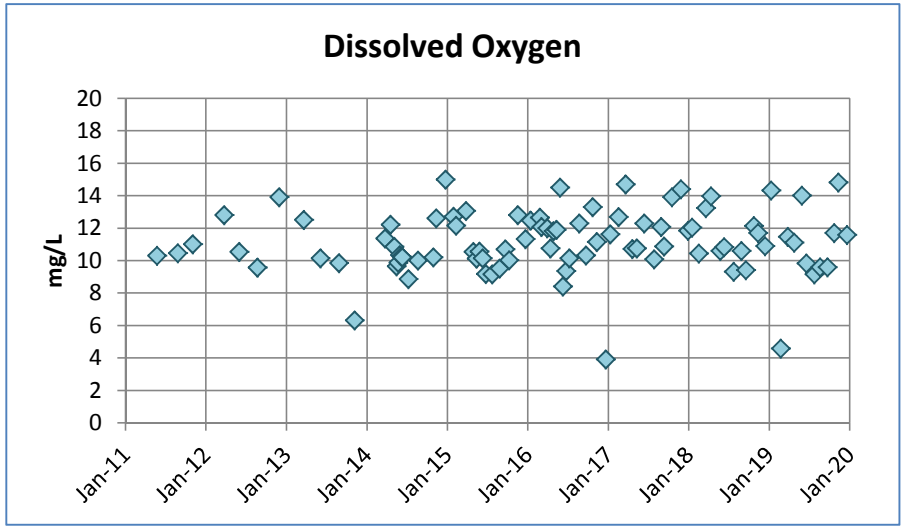
SW-2 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SW-1





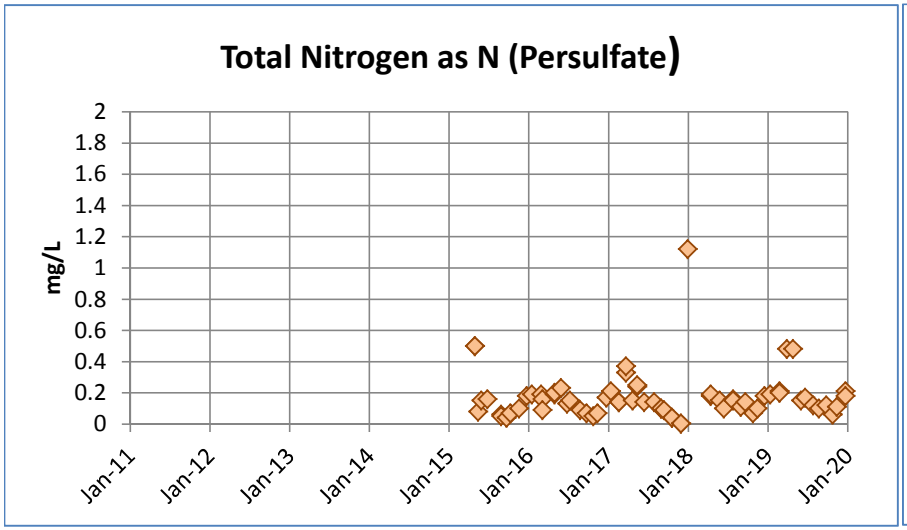


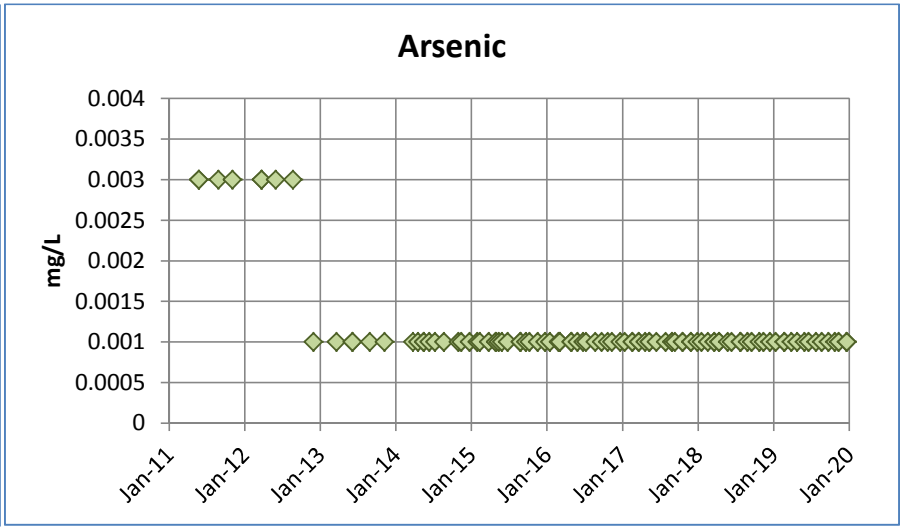


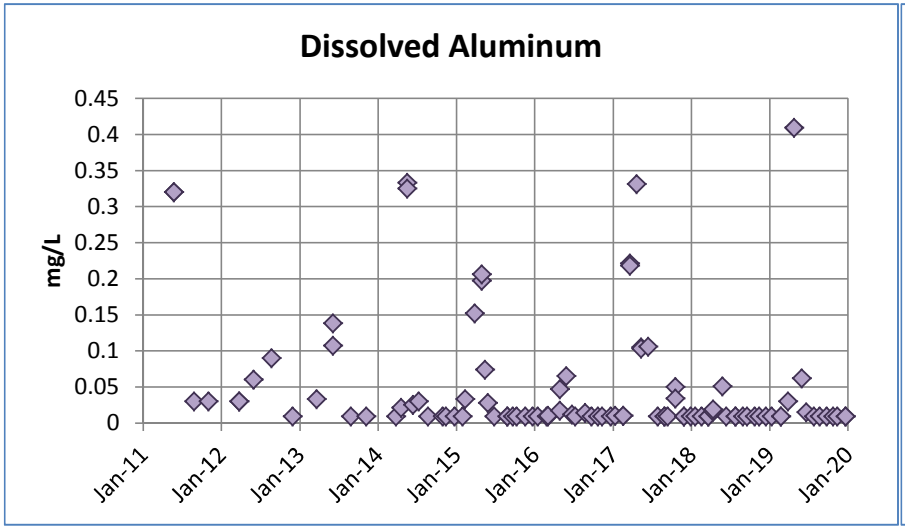
Hydrometrics, Inc.
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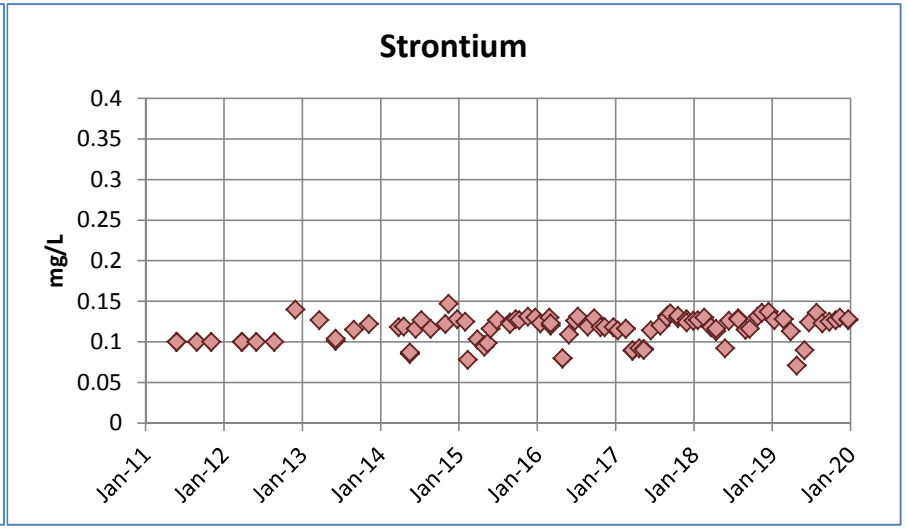
SW-1 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SW-1





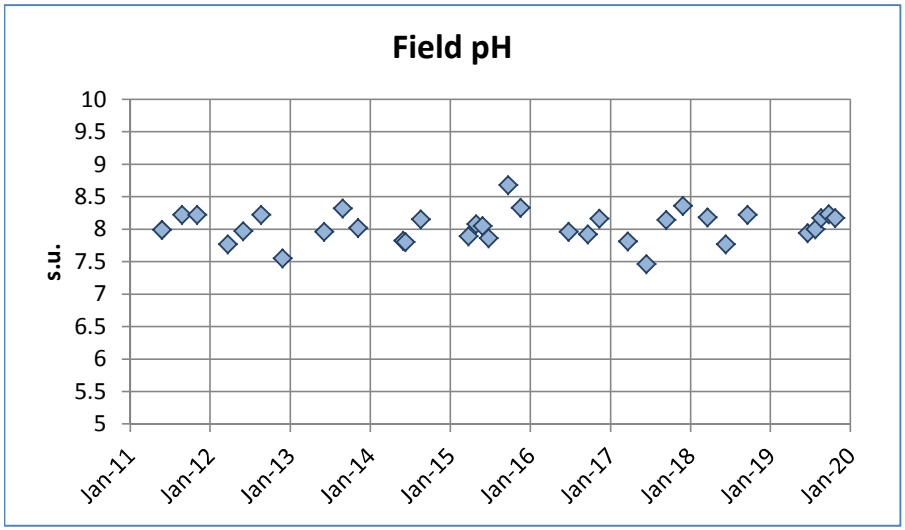


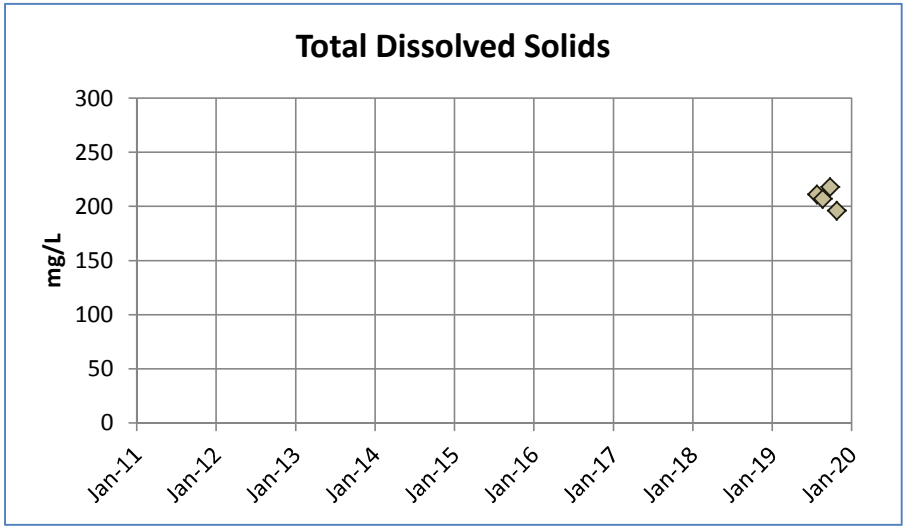


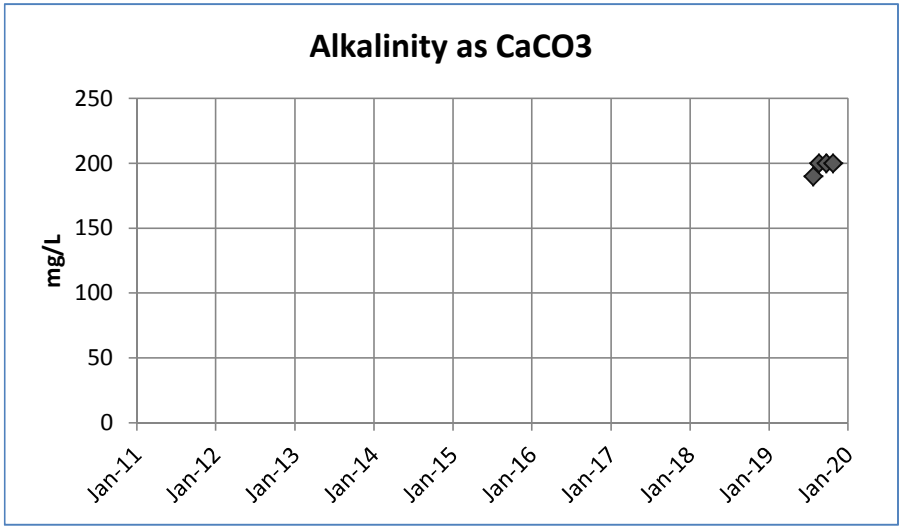
Hydrometrics, Inc.
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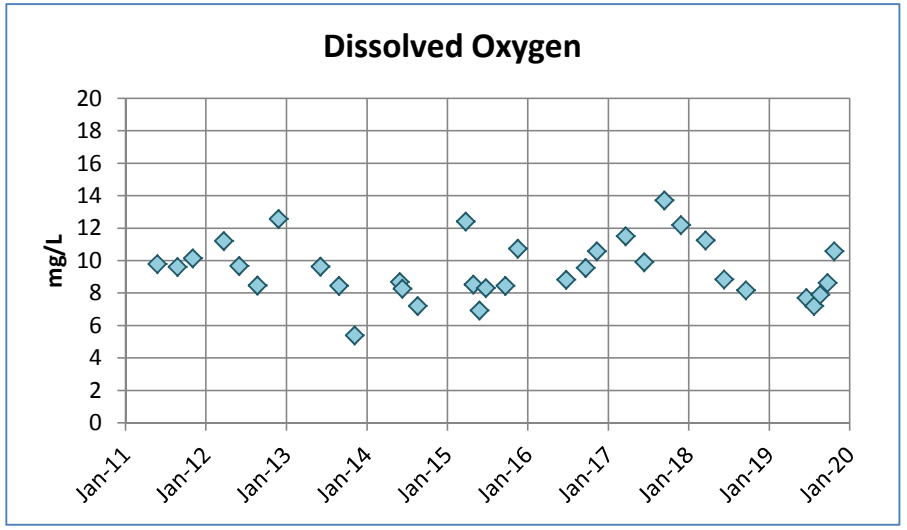
SW-1 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SW-4





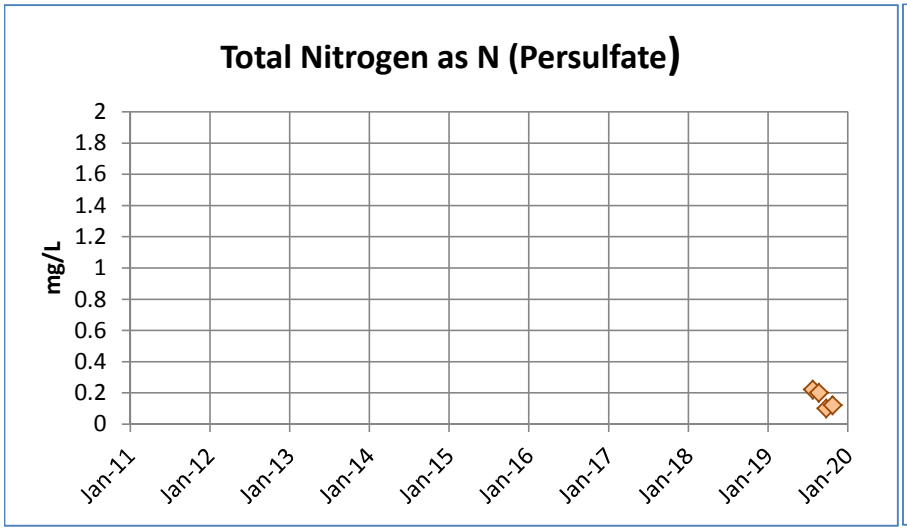


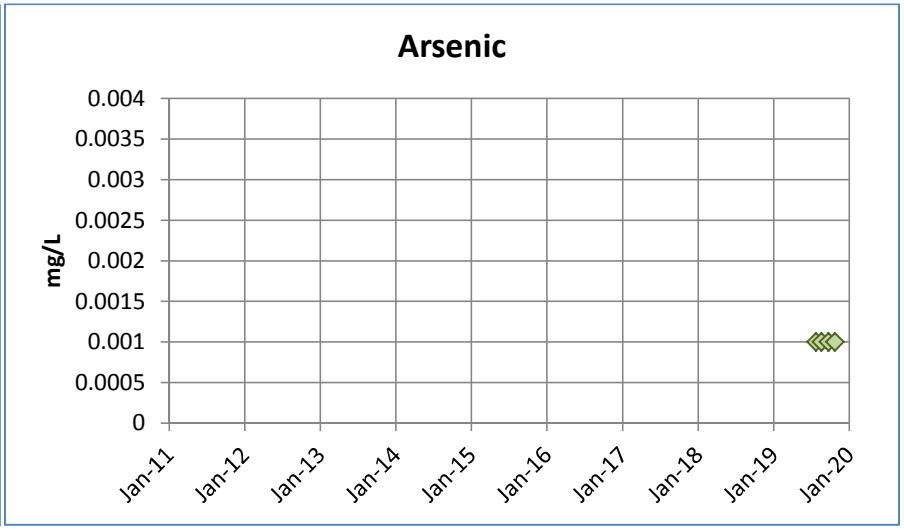


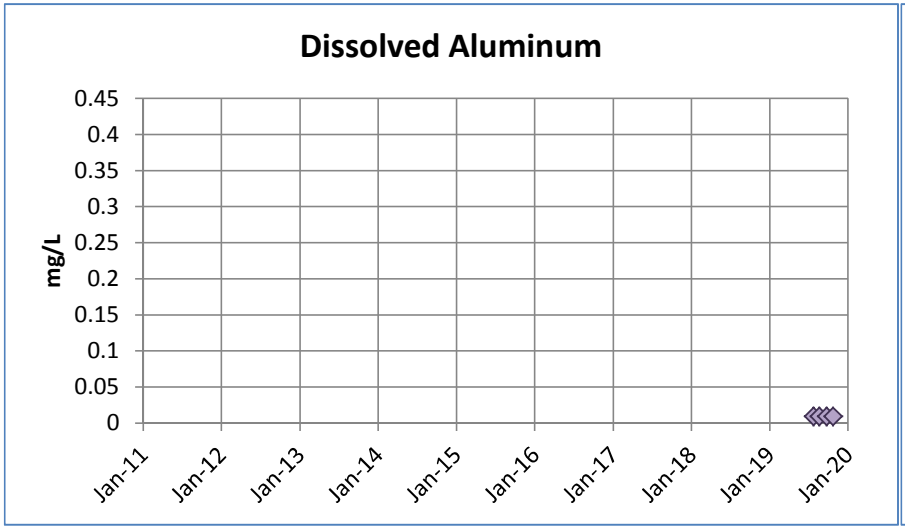
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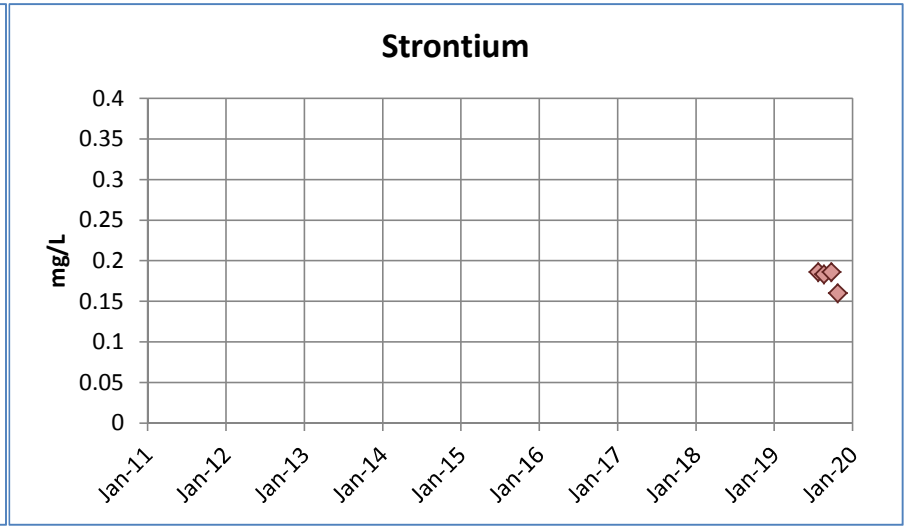
SW-3 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SW-4





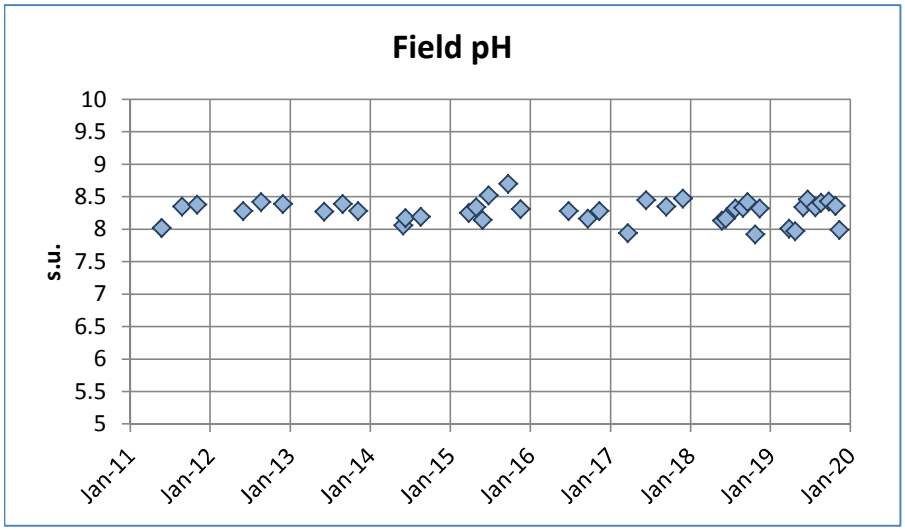


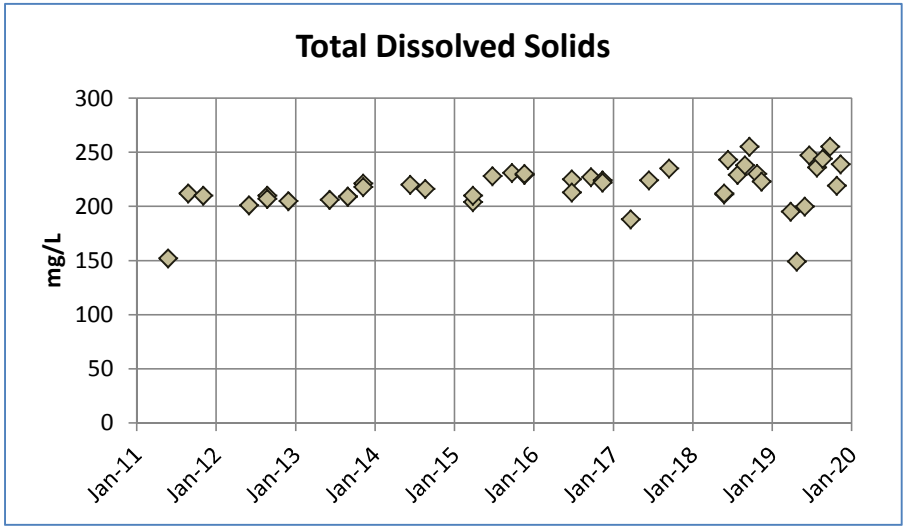


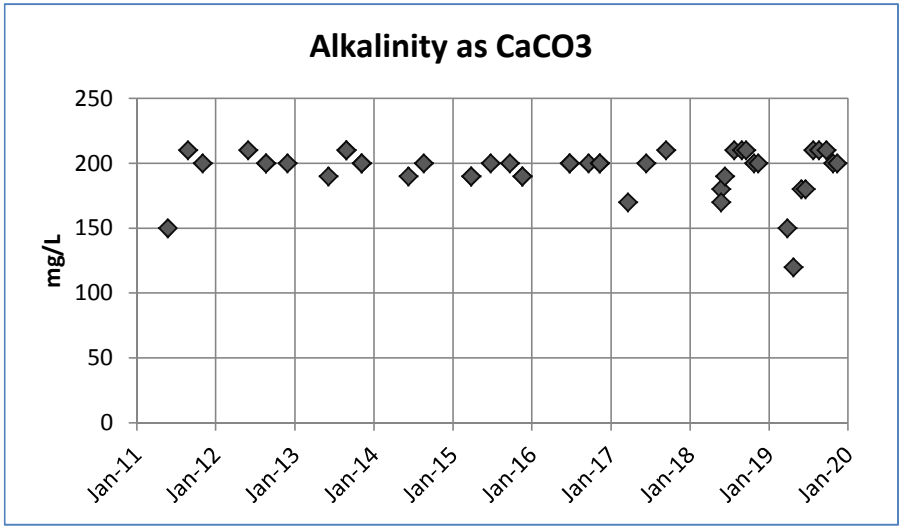
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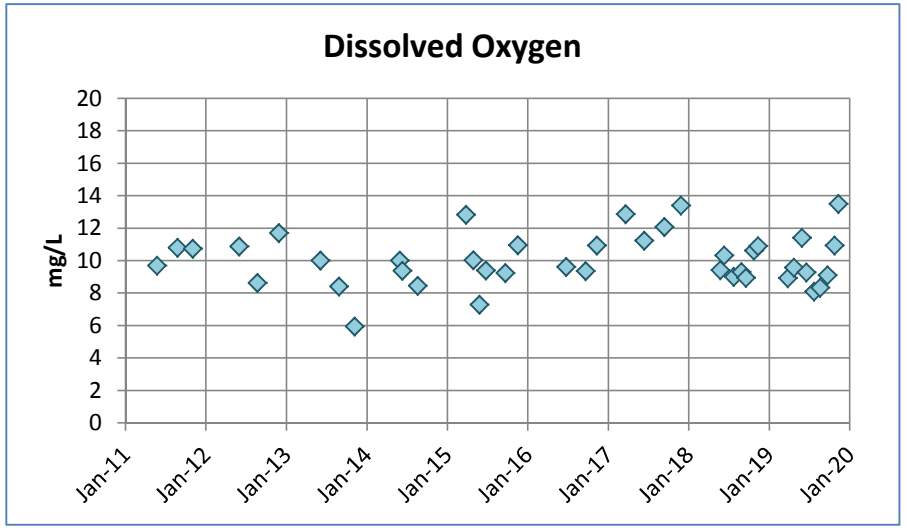
SW-4 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SW-3





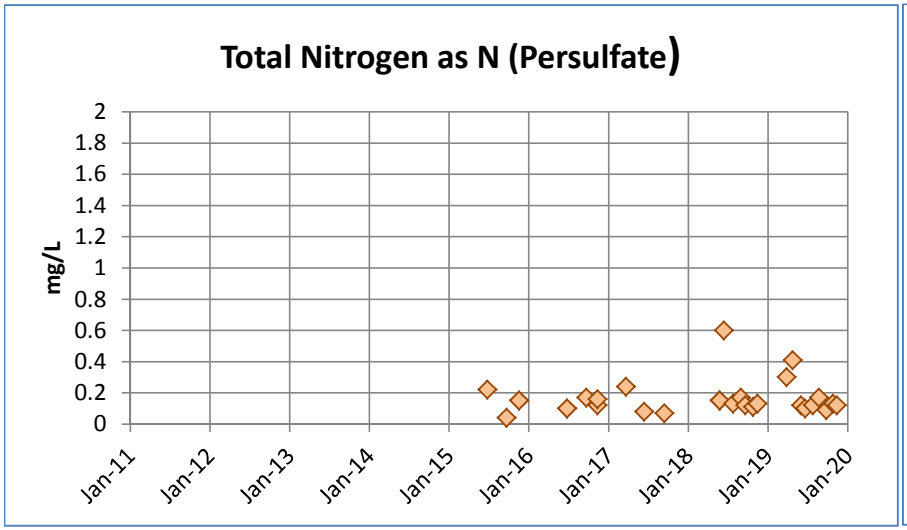


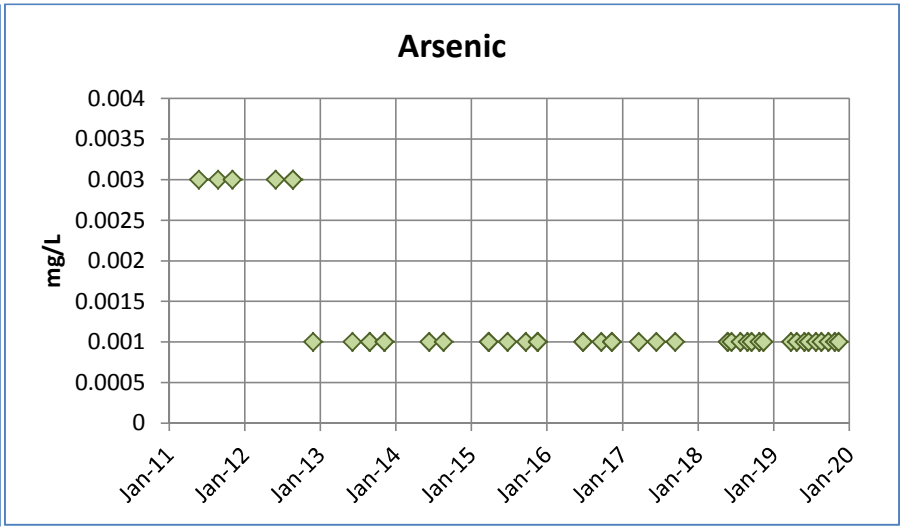


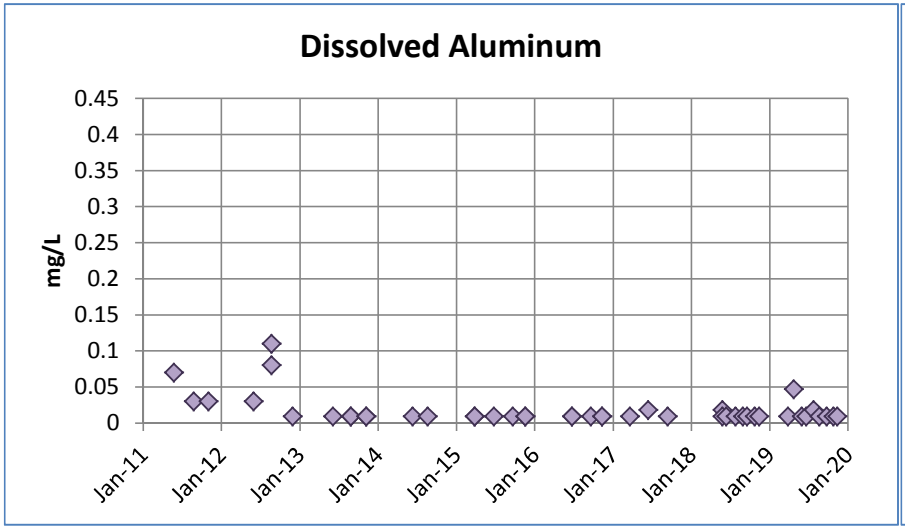
Hydrometrics, Inc.
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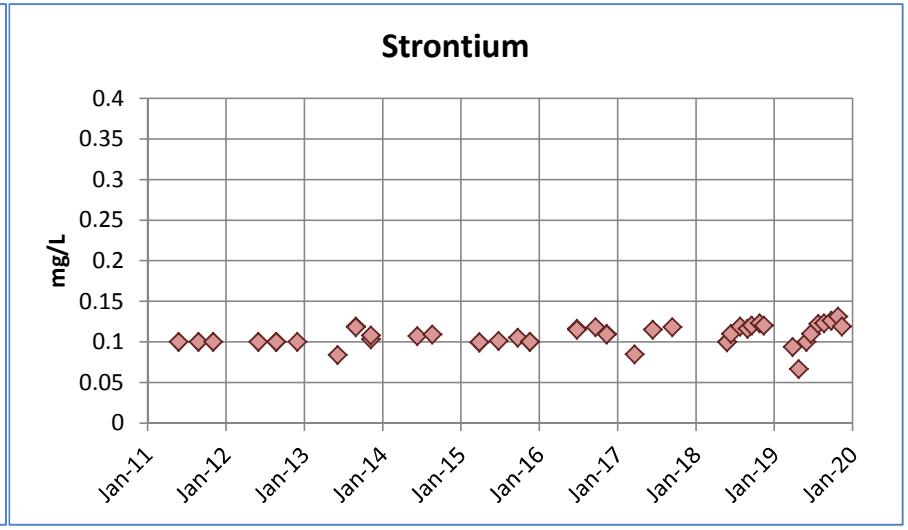
SW-3 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SW-3





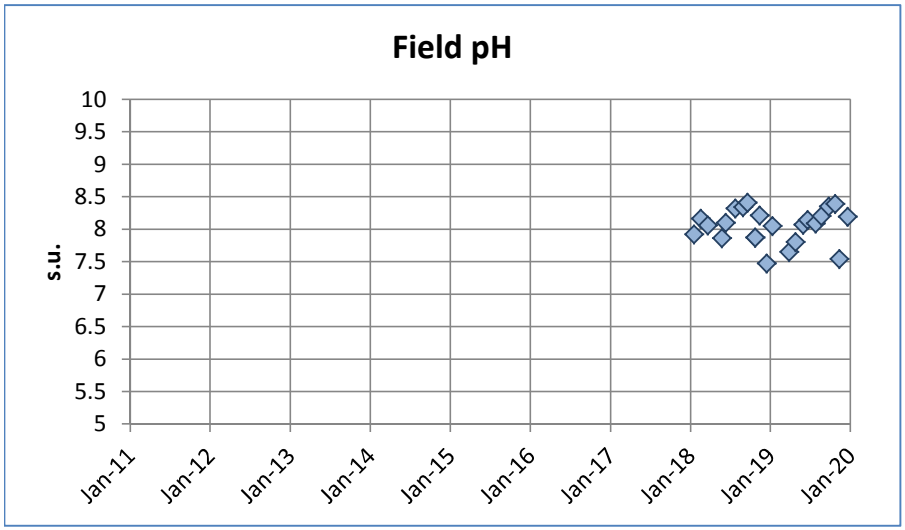


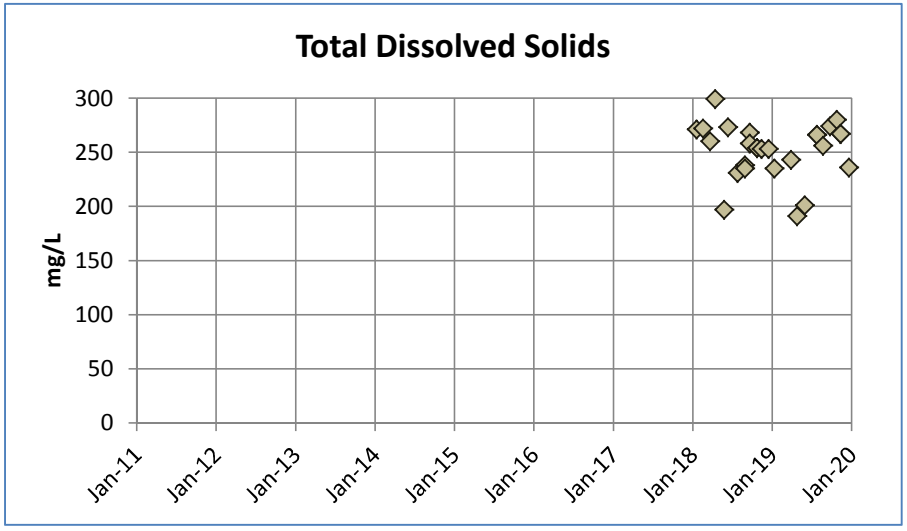


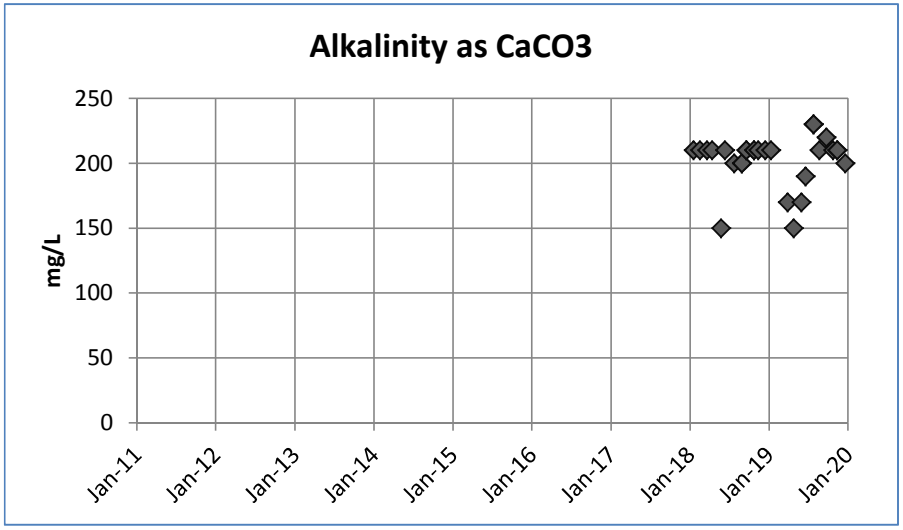
Hydrometrics, Inc.
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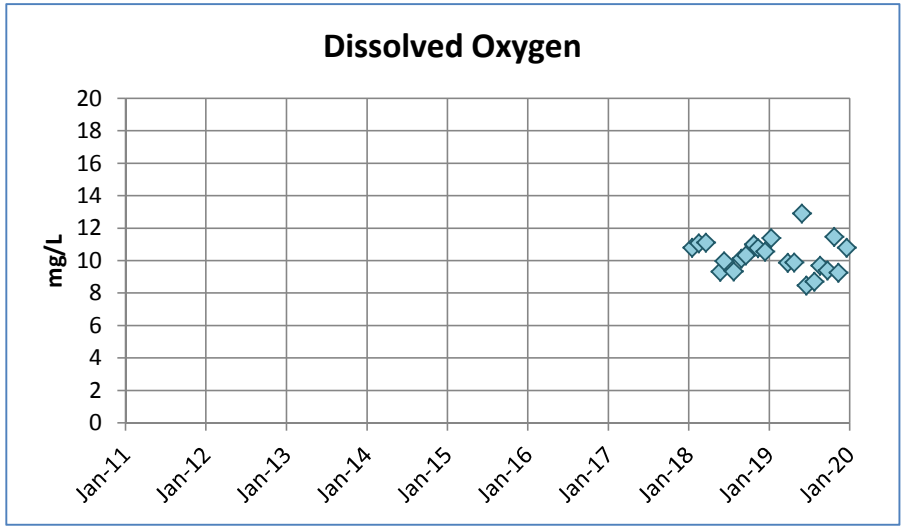
SW-3 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SW-17





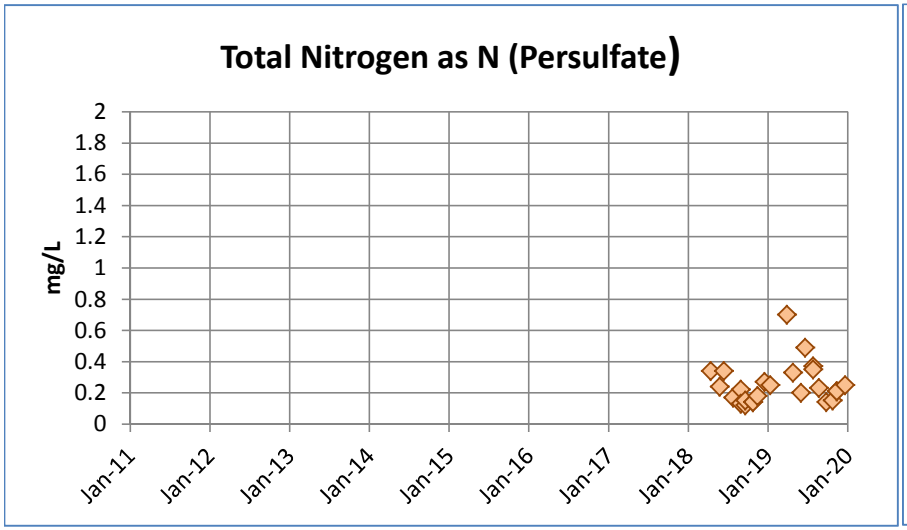


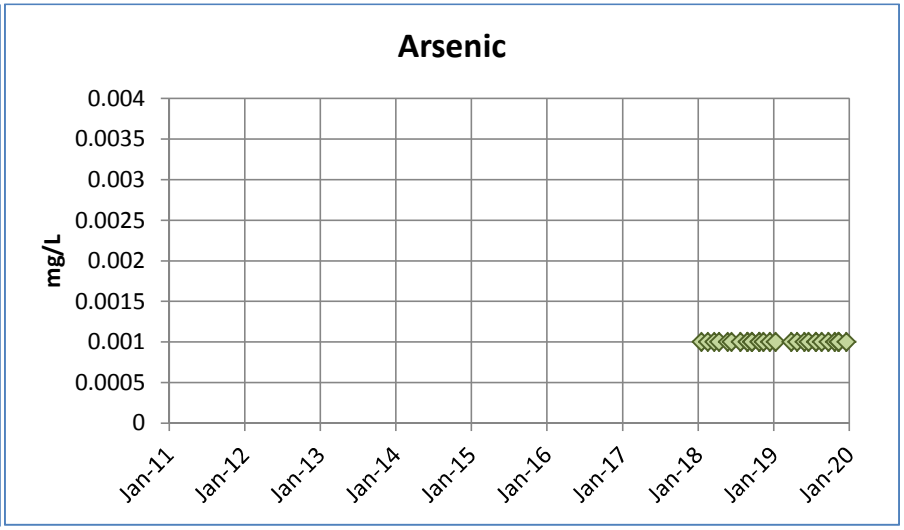


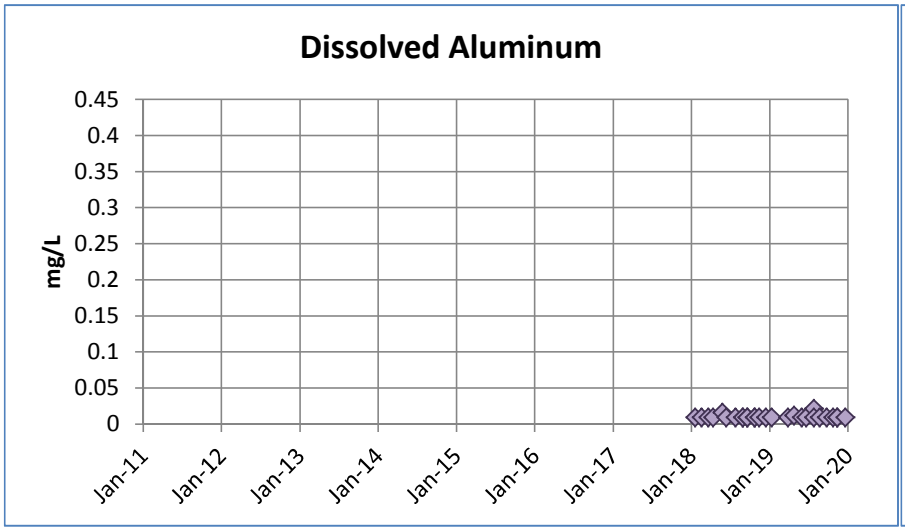
Hydrometrics, Inc.
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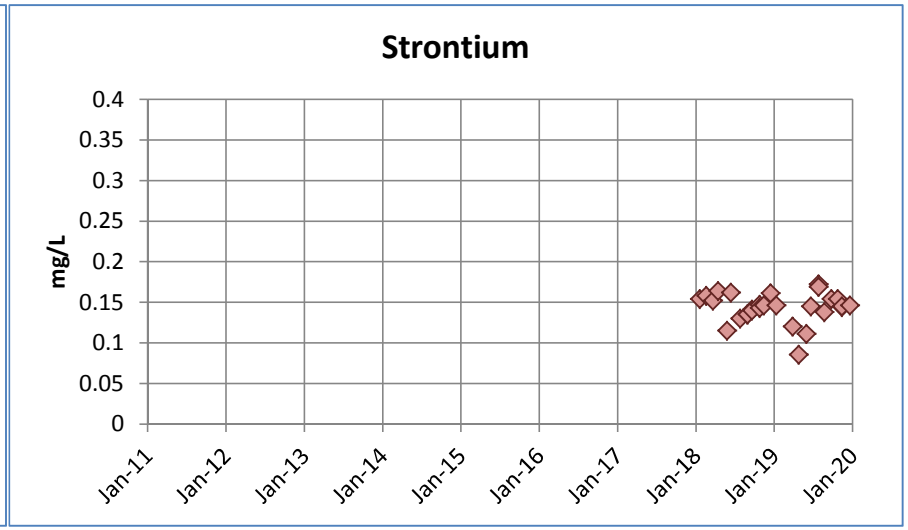
SW-17 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SW-17





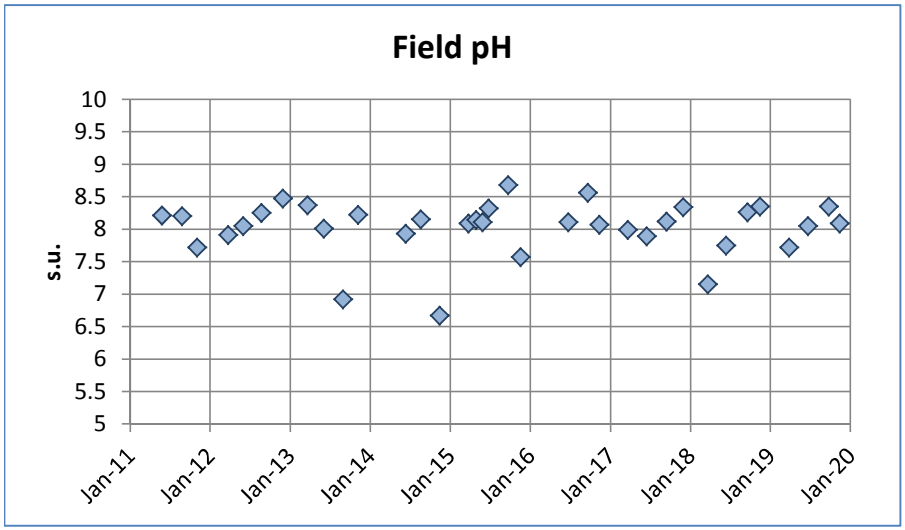


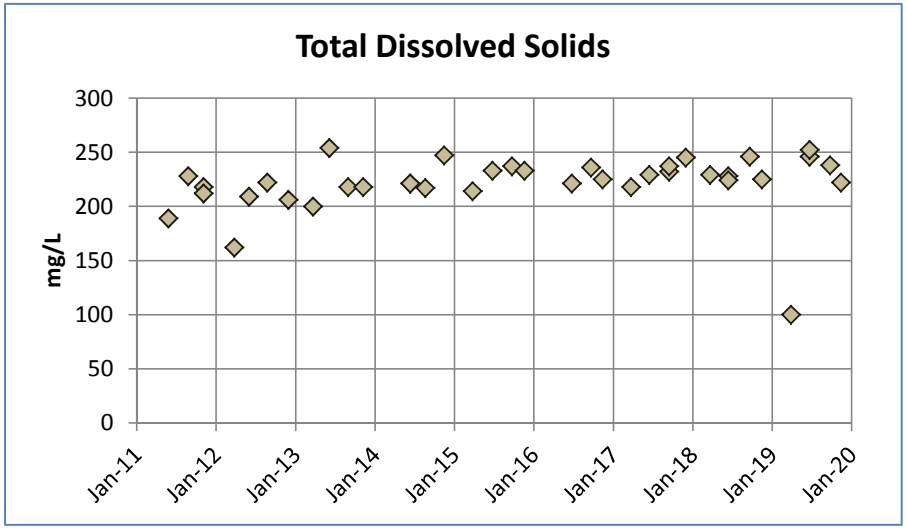


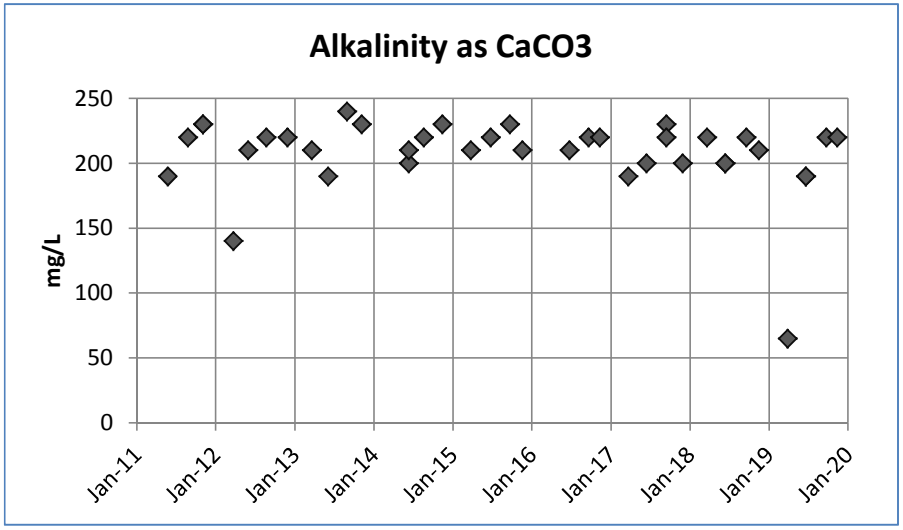
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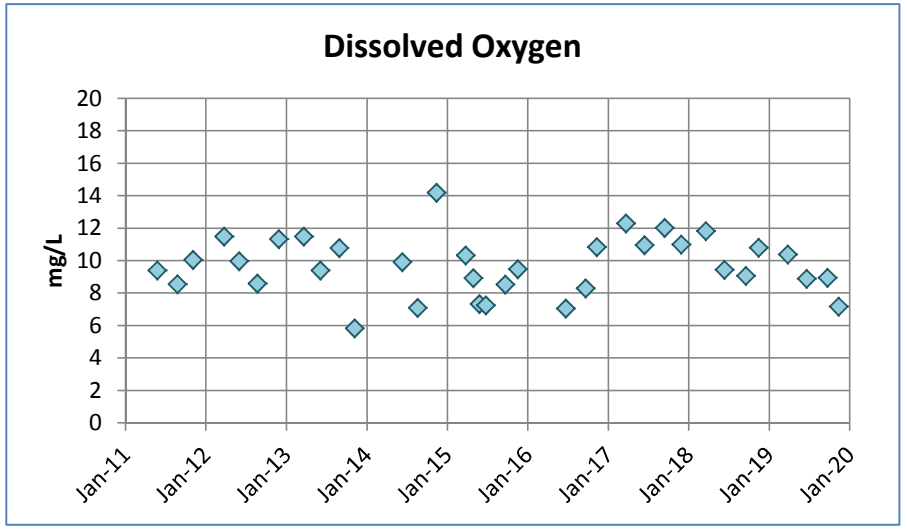
SW-17 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SW-6





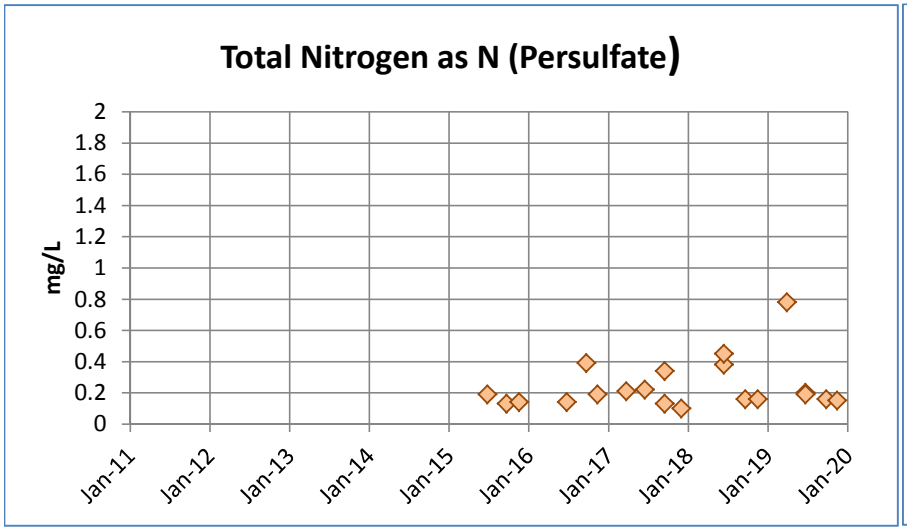


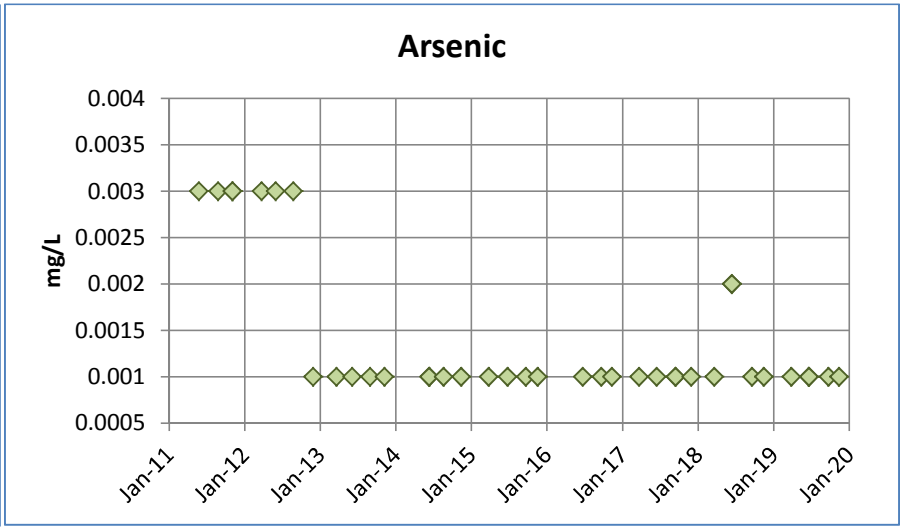


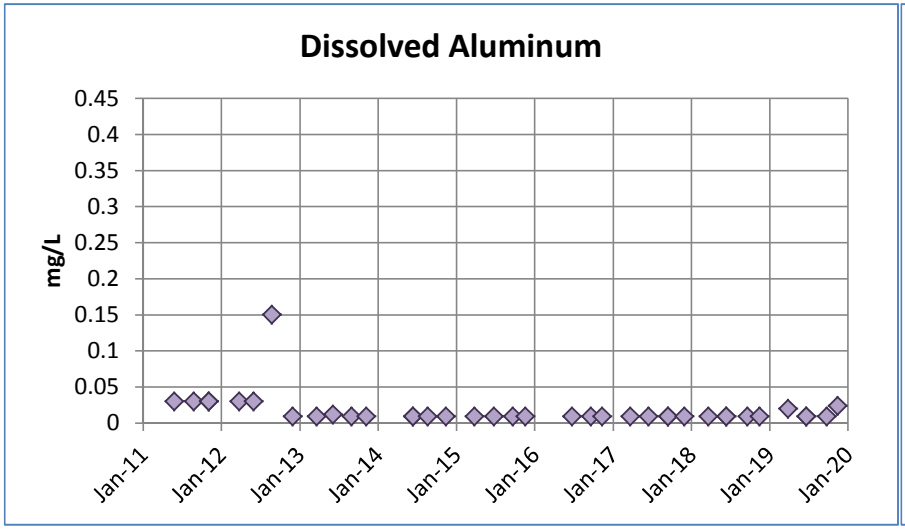
Hydrometrics, Inc.
Consulting Scientists and Engineers

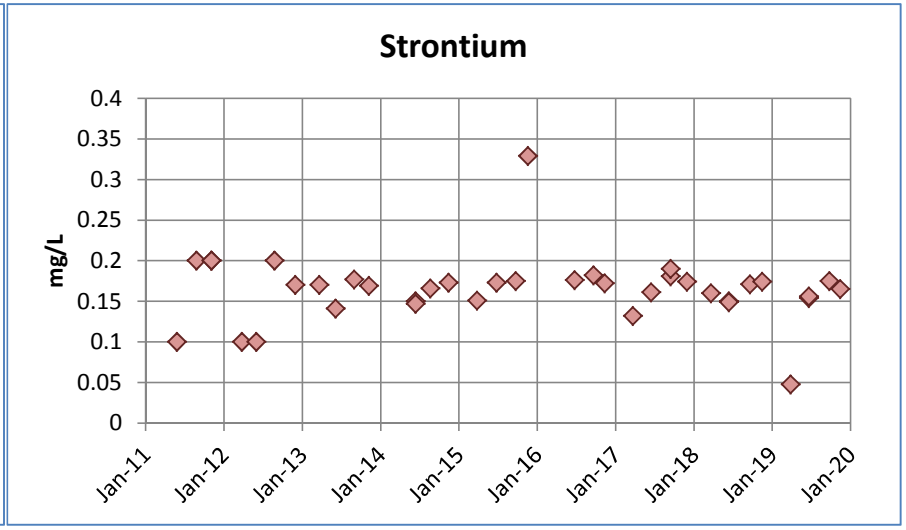
SW-6 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SW-6





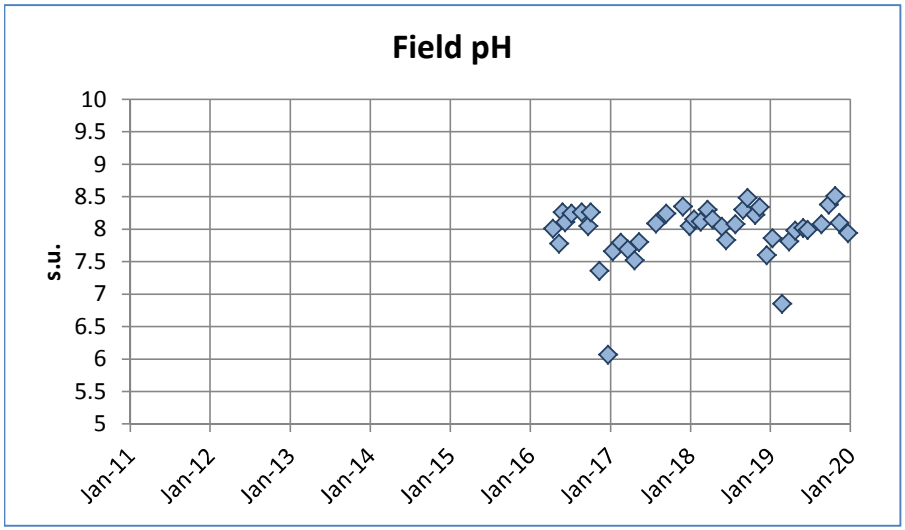


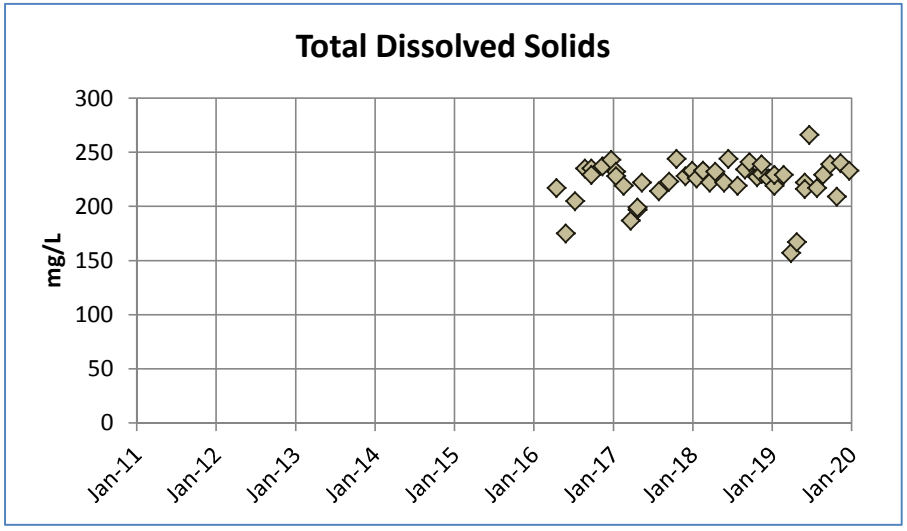


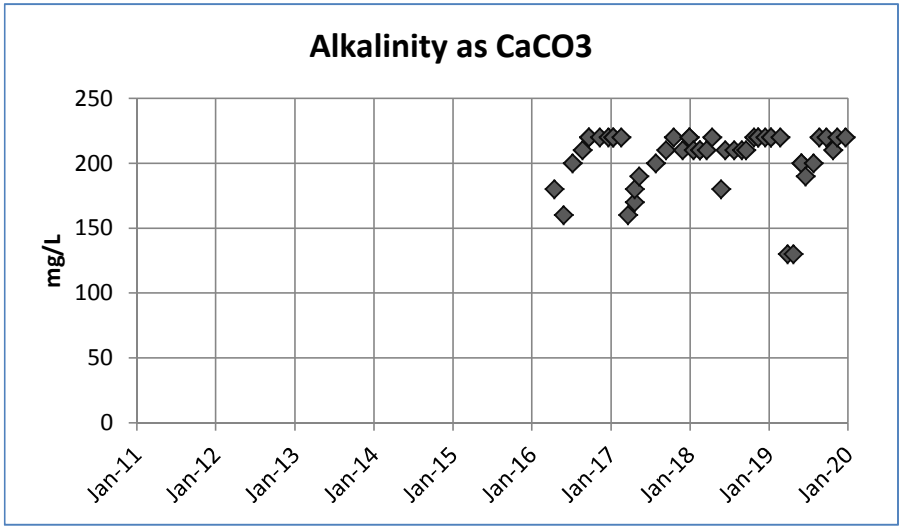
Hydrometrics, Inc.
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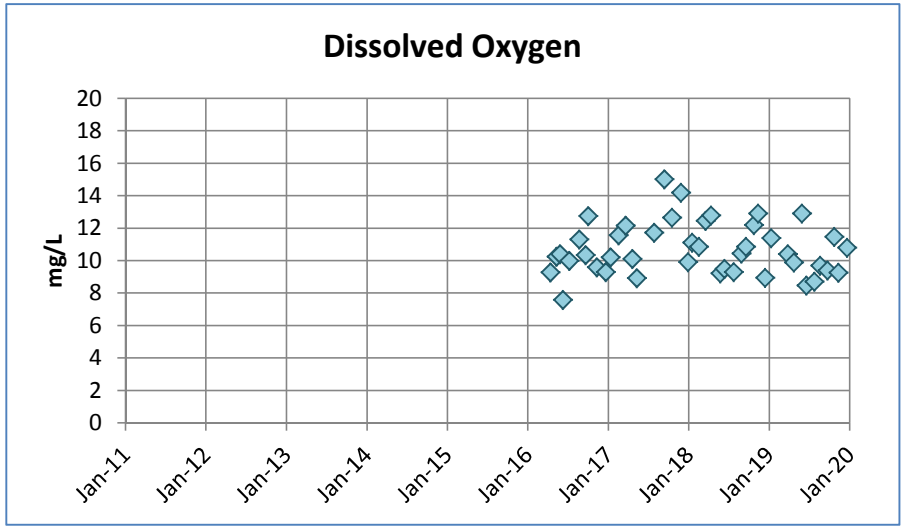
SW-6 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SW-14





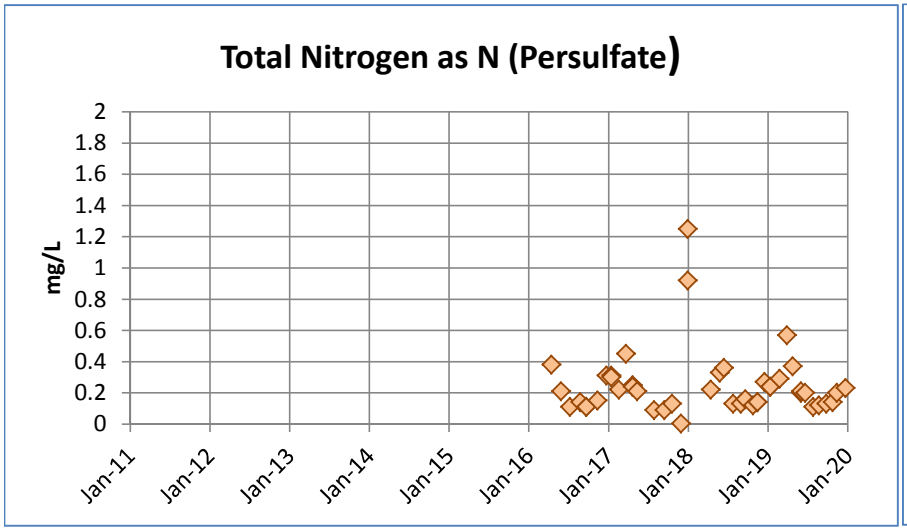


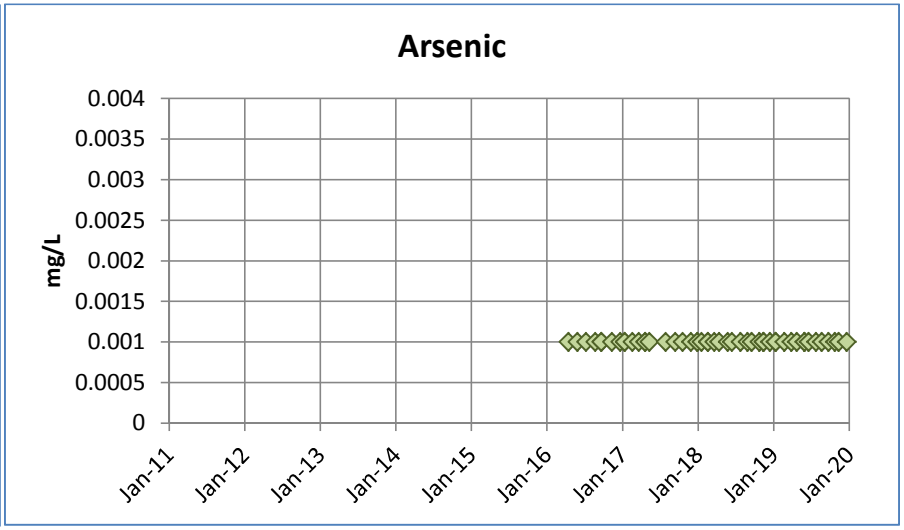


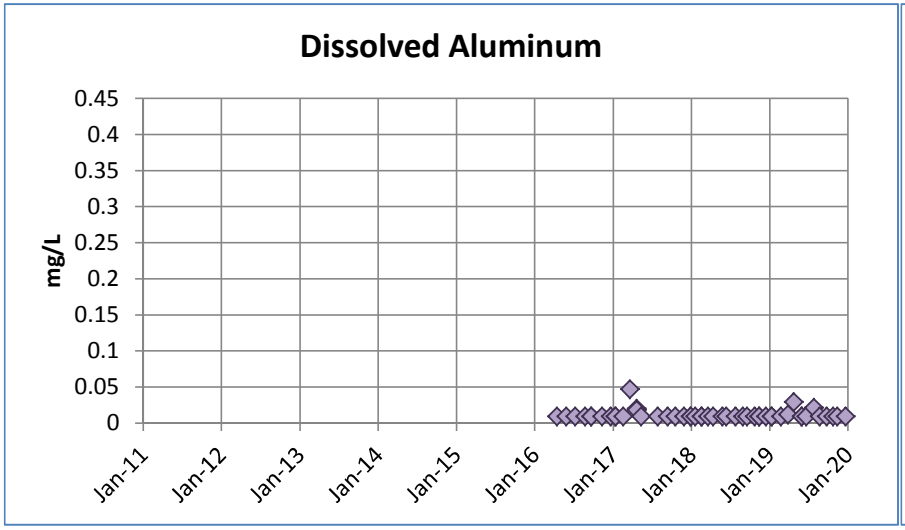
Hydrometrics, Inc.
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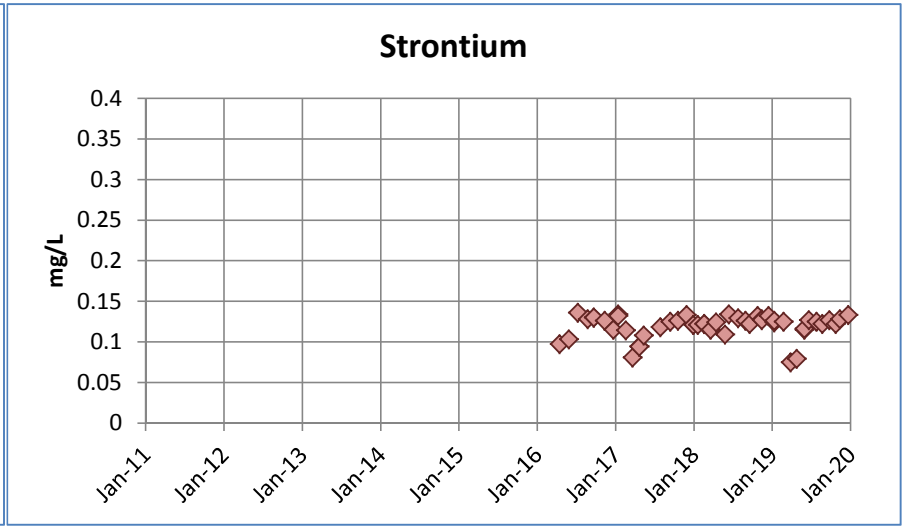
SW-14 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SW-14





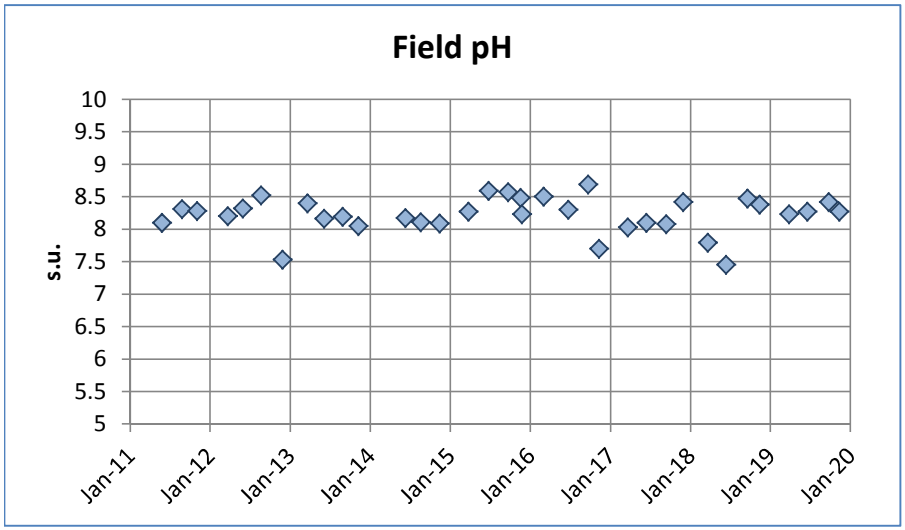


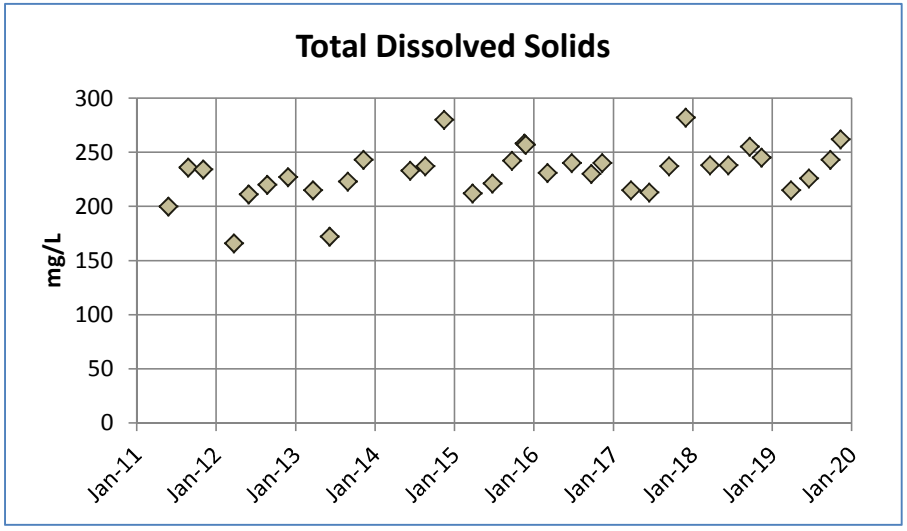


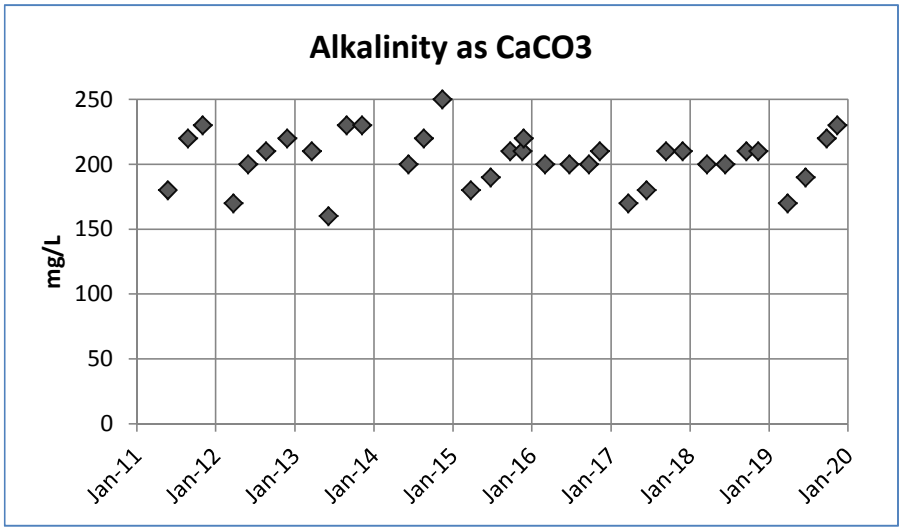
Hydrometrics, Inc.
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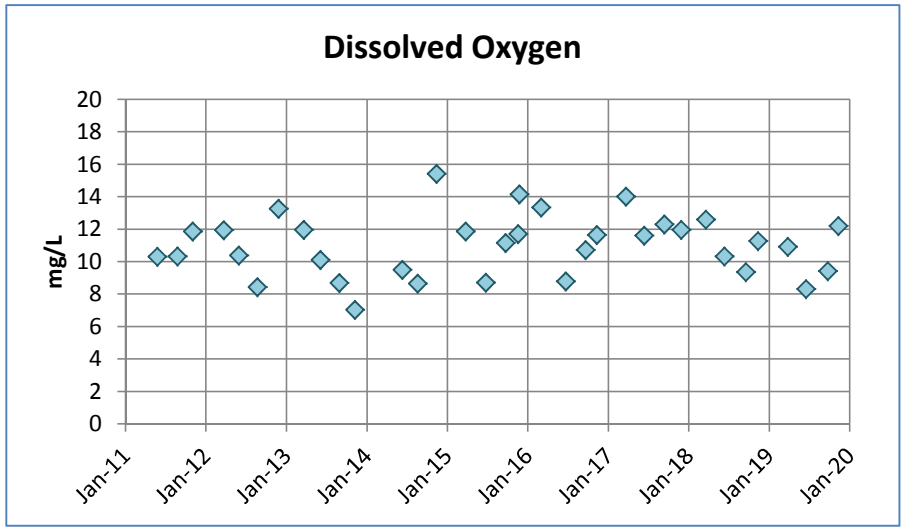
SW-14 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SW-11





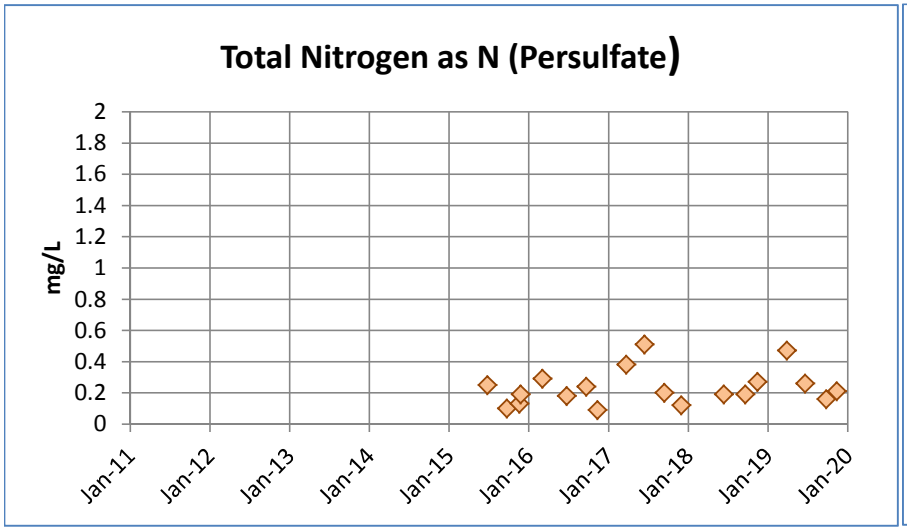


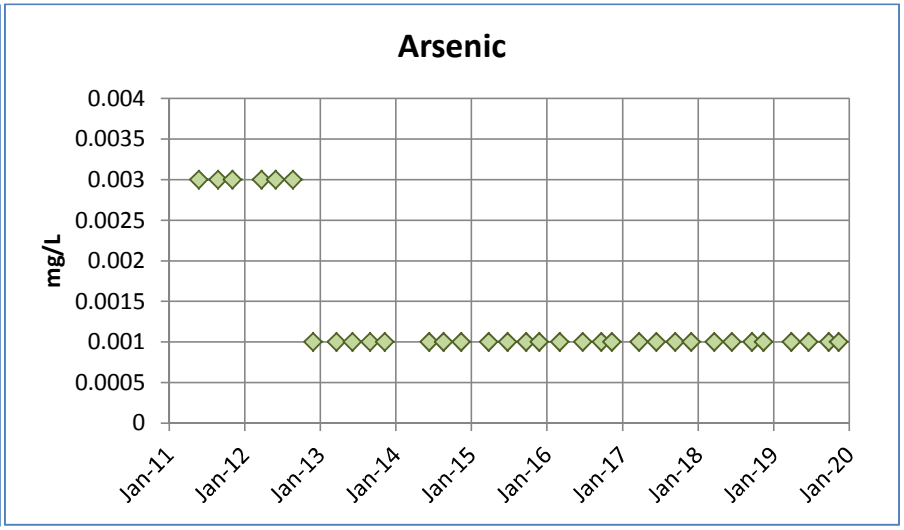


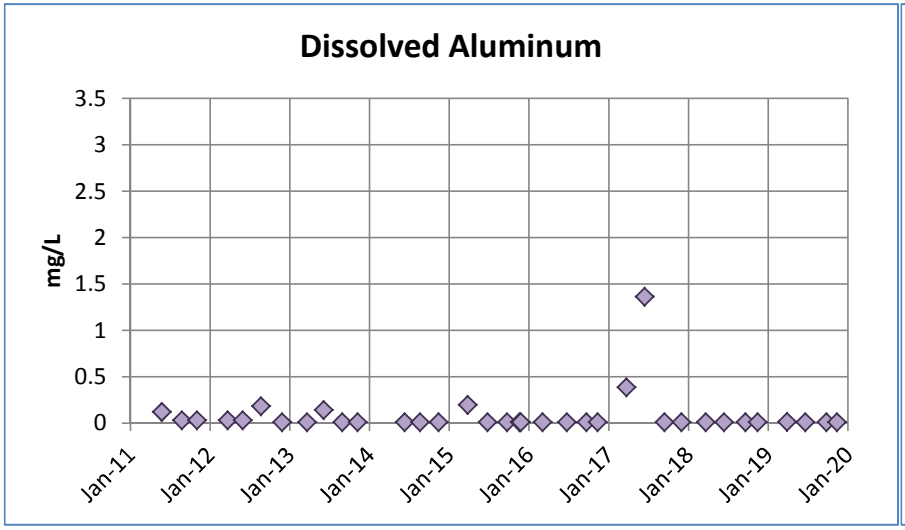
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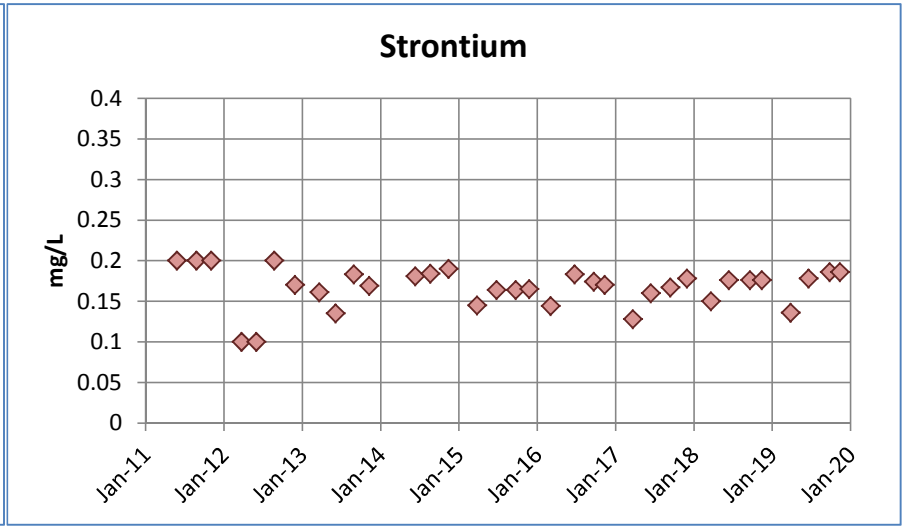
SW-11 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SW-11









Hydrometrics, Inc.
Consulting Scientists and Engineers

SW-11 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

APPENDIX C

SPRING WATER QUALITY DATA
SUMMARY AND TREND GRAPHS

Station Name	Reporting Units	Human Health Standard Groundwater	DS-1	DS-1	DS-1	DS-1	DS-1	DS-1	DS-1	DS-1	DS-1	DS-1	DS-1	DS-1	DS-1	DS-2	DS-2	DS-2	DS-2	DS-2	DS-2	DS-2	DS-2	DS-2
Sample Date			1/10/19 10:15	2/22/19 15:40	3/26/19 15:05	4/23/19 14:40	5/29/19 14:50	5/29/19 15:00	6/20/19 12:00	7/24/19 14:00	8/20/19 14:15	9/25/19 10:30	10/24/19 12:10	11/12/19 10:15	12/19/19 13:00	1/10/19 15:45	2/22/19 00:00	3/26/19 17:15	4/23/19 13:00	5/29/19 13:55	6/19/19 12:05	7/24/19 10:05	8/20/19 10:40	9/25/19 09:35
Sample ID			BBC-1901-121	BBC-1902-118	BBC-1903-111	BBC-1904-107	BBC-1905-107	BBC-1905-108	BBC-1906-132	BBC-1907-108	BBC-1908-108	BBC-1909-140	BBC-1910-117	BBC-1911-118	BBC-1912-122	BBC-1901-119	BBC-1902-121	BBC-1903-113	BBC-1904-104	BBC-1905-105	BBC-1906-113	BBC-1907-100	BBC-1908-100	BBC-1909-138
Lab Name			Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro	Hydro	HYDRO	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
Remarks			No Sample	No Sample				Duplicate							No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample
Lab Sample ID					H19030475-004	H19040763-002	H19050915-002	H19050915-003	H19060535-011	H19070585-002	H19080622-002	H19090658-006	H19100566-004	H19110279-001										
Field Parameters																								
Dissolved Oxygen	mg/L				10.03	8.53	9.16		8.83	11.17	9.41	9.67	10.16	12.02						9.9	7.69	5.19	7.38	8.8
Field pH	s.u.				8.17	7.81	7.82		7.73	7.95	8.08	8.11	7.83	8.17						7.61	7.25	7.17	7.33	7.94
Field Specific Conductivity	umhos/cm				367	388	421		415	416	402	411	426	259						193	259	333	351	369
Flow	Gallons Per Min		NF-DRY	NF-DRY	2.6	49.8	50.9		22.67	11.1	5.94	4.35	4.91	NM-ICE	NF-ICE	NF-ICE	NF-ICE	NF-ICE	NF-ICE	3.9	2.14	0.91	0.43	0.35
Water Temperature	Deg C				2.3	4.5	8.3		7.1	11.4	11	8.1	5	2.2						8	8.5	13.5	13.8	6.3
Physical Parameters																								
pH	s.u.																							
pH Measurement Temp	Deg C																							
Total Dissolved Solids	mg/L				203	214	221	217	231	222	232	228	229	223										
Total Suspended Solids	mg/L				20	<10	<10	<10	<10	<10	<10	<10	<10	311 J										
Major Constituents - Commons Ions																								
Alkalinity as CaCO3	mg/L				190	200	220	220	210	210	220	220	220	220										
Calcium (DIS)	mg/L				51	53	55	57	57	60	54	53	58	55										
Chloride	mg/L				<1	<1	<1	<1	<1	<1	<1	<1	<1	<1										
Fluoride	mg/L	4			0.1	0.1	0.1	0.1	<0.1	0.1	0.1	0.1	0.1	0.1										
Hardness as CaCO3	mg/L				205	211	220	226	227	238	219	215	234	223										
Magnesium (DIS)	mg/L				19	19	20	20	21	22	20	20	22	21										
Potassium (DIS)	mg/L				<1	<1	<1	<1	<1	<1	<1	<1	<1	<1										
Sodium (DIS)	mg/L				1	1	2	2	2	2	2	2	2	2										
Sulfate	mg/L				15	14	15	15	15	14	16	14	15	15										
Nutrients																								
Nitrate + Nitrite as N	mg/L	10			0.12	0.24	0.13	0.13	0.16	0.18	0.22	0.08	0.19	0.13										
Metals - Trace Constituents																								
Aluminum (DIS)	mg/L				<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	0.024										
Antimony (DIS)	mg/L	0.006			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005										
Arsenic (DIS)	mg/L	0.01			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001										
Barium (DIS)	mg/L	1			0.059	0.045	0.05	0.051	0.05	0.05	0.051	0.071	0.052	0.062										
Beryllium (DIS)	mg/L	0.004			<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008										
Cadmium (DIS)	mg/L	0.005			<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003										
Chromium (DIS)	mg/L	0.1			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01										
Cobalt (DIS)	mg/L				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01										
Copper (DIS)	mg/L	1.3			<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002										
Iron (DIS)	mg/L				<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.03										
Lead (DIS)	mg/L	0.015			<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003										
Manganese (DIS)	mg/L				<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005										
Mercury (DIS)	ug/L				<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005										
Molybdenum (DIS)	mg/L				<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002										
Nickel (DIS)	mg/L	0.1			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001										
Selenium (DIS)	mg/L	0.05			0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0002										
Silver (DIS)	mg/L	0.1			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002										
Strontium (DIS)	mg/L	4			0.104	0.0942	0.105	0.106	0.107	0.1	0.108	0.119	0.111	0.111										
Thallium (DIS)	mg/L	0.002			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002										
Uranium (DIS)	mg/L	0.03			0.0007	0.0005	0.0006	0.0006	0.0006	0.0006	0.0006	0.0007	0.0006	0.0007										
Zinc (DIS)	mg/L	2			<0.002	0.01	0.009	0.009	0.007	<0.002	<0.002	<0.002	0.003	0.002										

Definitions:

J = Field Duplicate sample exceeded QA/QC comparison control limits
U = Field Blank sample exceeded QA/QC comparison control limits
H = Holding time exceeded QA/QC comparison control limits
D = Reporting limit increased due to sample matrix interference
L = The lowest available reporting limit was used per method used for analysis
NM = Not measured
NF-ICE = Not flowing; ice on ground
NM-ICE = Not measured; ice prohibitive
NF-DRY = Not flowing; Dry ground

Analyte concentration exceeds the standard for:

Human Health Standard Groundwater

Source:

Montana DEQ7 May 2017
Montana DEQ7 June 2019

Station Name	Reporting Units	Human Health Standard Groundwater	DS-2	DS-2	DS-2	DS-3	DS-3	DS-3	DS-3	DS-3	DS-3	DS-3	DS-3	DS-3	DS-3	DS-3	DS-3	DS-3	DS-4	DS-4	DS-4	DS-4	DS-4	DS-4
Sample Date			10/24/19 08:45	11/12/19 11:30	12/19/19 12:00	1/10/19 12:00	2/22/19 00:00	3/26/19 11:30	4/24/19 12:00	5/29/19 16:15	6/19/19 13:00	7/24/19 15:35	7/24/19 15:45	8/20/19 15:35	9/24/19 13:00	10/24/19 14:10	11/11/19 16:30	12/19/19 13:45	1/10/19 12:12	2/22/19 00:00	3/26/19 10:00	4/24/19 12:25	5/29/19 16:40	6/19/19 13:20
Sample ID			BBC-1910-109	BBC-1911-120	BBC-1912-105	BBC-1901-115	BBC-1902-114	BBC-1903-103	BBC-1904-118	BBC-1905-112	BBC-1906-116	BBC-1907-112	BBC-1907-113	BBC-1908-111	BBC-1909-120	BBC-1910-122	BBC-1911-117	BBC-1912-127	BBC-1901-116	BBC-1902-115	BBC-1903-101	BBC-1904-119	BBC-1905-113	BBC-1906-117
Lab Name			Hydro	Hydro	Hydro	Hydro	Hydro	HYDRO	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro	Hydro	Hydro	HYDRO	Energy Labs	Energy Labs	Energy Labs
Remarks			No Sample	No Sample	No Sample	No Sample	No Sample	No Sample					Duplicate				No Sample	No Sample	No Sample	No Sample	No Sample			
Lab Sample ID									H19040763-005	H19050915-005	H19060535-003	H19070585-004	H19070585-005	H19080622-004	H19090658-001	H19100566-008						H19040763-006	H19050915-006	H19060535-004
Field Parameters																								
Dissolved Oxygen	mg/L		7.13	16.7	6.82				0	7.24	6.43	5.14		5.86	8.05	8.8						9.89	8.78	7.78
Field pH	s.u.		8.11	7.61	7.89				7.92	6.89	6.4	8.23		8.07	7.03	7.99						7.36	6.58	6.25
Field Specific Conductivity	umhos/cm		366	388	367				32	40	45	49		55.2	54	54.2						82	92	90
Flow	Gallons Per Min		0.31	0.26	0.32	NF-DRY	NF-DRY	NF-DRY	NM	12.1	13.95	13.08		7.69	1	0.32	NF-ICED	NF-DRY	NF-DRY	NF-DRY	NF-DRY	NM	NM	NM
Water Temperature	Deg C		2.1	0.98	1.7				7	4.7	7.3	9.5		12.3	10.3	4.6						5.4	5.9	6.9
Physical Parameters																								
pH	s.u.																							
pH Measurement Temp	Deg C																							
Total Dissolved Solids	mg/L								68	64	69	54	60	58	56	49						120	90	87
Total Suspended Solids	mg/L								<10	<10	<10	<10	<10	<10	<10	<10						<10	62	<10
Major Constituents - Commons Ions																								
Alkalinity as CaCO3	mg/L								14	18	20	22	22	23	24	24						37	41	40
Calcium (DIS)	mg/L								4	5	5	5	5	6	6	7						12	13	13
Chloride	mg/L								<1	<1	<1	<1	<1	<1	<1	<1						<1	<1	<1
Fluoride	mg/L	4							<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1						<0.1	<0.1	<0.1
Hardness as CaCO3	mg/L								14	19	20	22	23	21	21	25						41	43	42
Magnesium (DIS)	mg/L								1	1	2	2	2	2	2	2						3	3	3
Potassium (DIS)	mg/L								1	<1	1	1	1	1	1	<1						<1	<1	<1
Sodium (DIS)	mg/L								<1	1	1	1	1	1	1	1						1	1	1
Sulfate	mg/L								1	1	1	1	1	2	2	2						2	3	3
Nutrients																								
Nitrate + Nitrite as N	mg/L	10							0.05	0.11	0.15	0.19	0.18	0.3	0.36	0.37						0.27	0.24	0.25
Metals - Trace Constituents																								
Aluminum (DIS)	mg/L								1.15	2	1.95	1.41 J	1.44 J	0.892	0.177	0.68						2.65	1.35	1.28
Antimony (DIS)	mg/L	0.006							<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005						<0.0005	<0.0005	<0.0005
Arsenic (DIS)	mg/L	0.01							<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001						0.002	0.001	0.001
Barium (DIS)	mg/L	1							0.161	0.229	0.245	0.25	0.255	0.267	0.274	0.282						0.32	0.327	0.309
Beryllium (DIS)	mg/L	0.004							<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008						<0.0008	<0.0008	<0.0008
Cadmium (DIS)	mg/L	0.005							<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003						<0.00003	<0.00003	<0.00003
Chromium (DIS)	mg/L	0.1							<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01						<0.01	<0.01	<0.01
Cobalt (DIS)	mg/L								<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01						<0.01	<0.01	<0.01
Copper (DIS)	mg/L	1.3							0.002	0.004	0.003	0.002	0.002	<0.002	<0.002	<0.002						0.003	0.002	<0.002
Iron (DIS)	mg/L								0.67	1.2	1.24	0.78	0.8	0.41	0.21	0.35						1.64	0.82	0.77
Lead (DIS)	mg/L	0.015							<0.0003	0.0003	0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003						0.0007	<0.0003	<0.0003
Manganese (DIS)	mg/L								0.006	0.008	0.006	<0.005	<0.005	<0.005	<0.005	<0.005						0.011	0.005	0.006
Mercury (DIS)	ug/L								0.013	0.02 D	0.01	0.006	0.006	0.006	0.006	0.005						0.01	0.008	0.006
Molybdenum (DIS)	mg/L								<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002						<0.002	<0.002	<0.002
Nickel (DIS)	mg/L	0.1							0.002	0.004	0.004	0.003	0.003	0.003	0.002	0.003						0.003	0.002	0.002
Selenium (DIS)	mg/L	0.05							<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002						<0.0002	<0.0002	<0.0002
Silver (DIS)	mg/L	0.1							<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002						<0.0002	<0.0002	<0.0002
Strontium (DIS)	mg/L	4							0.0185	0.0231	0.0244	0.0297 L	0.0299 L	0.0292	0.0306	0.0314						0.041	0.0425	0.0396
Thallium (DIS)	mg/L	0.002							<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002						<0.0002	<0.0002	<0.0002
Uranium (DIS)	mg/L	0.03							<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002						<0.0002	<0.0002	<0.0002
Zinc (DIS)	mg/L	2							0.004	0.006	0.006	0.007 L	0.007 L	0.004	<0.002	0.004						0.006	0.004	0.006

Definitions:

J = Field Duplicate sample exceeded QA/QC comparison contro
U = Field Blank sample exceeded QA/QC comparison control l
H = Holding time exceeded QA/QC comparison control limit
D = Reporting limit increased due to sample matrix interference
L = The lowest available reporting limit was used per method u
NM = Not measured
NF-ICE = Not flowing; ice on ground
NM-ICE = Not measured; ice prohibitive
NF-DRY = Not flowing; Dry ground

Analyte concentration exceeds the standard for:

Human Health Standard Groundwate

Source:

Montana DEQ7 May 2017
Montana DEQ7 June 2019

Station Name	Reporting Units	Human Health Standard Groundwater	DS-4	DS-4	DS-4	DS-4	DS-4	DS-4	DS-5	DS-6	DS-7	DS-7	DS-7	DS-7	DS-7	DS-7	DS-7	DS-7	DS-8	DS-8	DS-8	DS-8	DS-8	DS-8
Sample Date			7/24/19 16:45	8/20/19 16:00	9/24/19 13:20	10/24/19 14:25	11/12/19 14:40	12/19/19 13:55	9/24/19 11:50	9/24/19 12:05	4/24/19 13:15	5/30/19 12:00	6/19/19 14:10	7/25/19 08:40	8/20/19 16:15	9/24/19 14:05	10/24/19 15:15	11/12/19 15:55	12/19/19 14:30	4/23/19 10:30	5/29/19 12:20	6/18/19 12:30	7/24/19 11:50	8/20/19 11:00	9/24/19 15:00
Sample ID			BBC-1907-115	BBC-1908-112	BBC-1909-122	BBC-1910-123	BBC-1911-127	BBC-1912-128	BBC-1909-117	BBC-1909-119	BBC-1904-121	BBC-1905-122	BBC-1906-119	BBC-1907-116	BBC-1908-114	BBC-1909-124	BBC-1910-125	BBC-1911-128	BBC-1912-107	BBC-1904-100	BBC-1905-102	BBC-1906-100	BBC-1907-104	BBC-1908-101	BBC-1909-128
Lab Name			Energy Labs	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
Remarks				No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample
Lab Sample ID			H19070585-007																						
Field Parameters																									
Dissolved Oxygen	mg/L		7.26							8.66	9.86	11.63	9.3	8.81	9.07	9.34	9.53	13.12	9.2	10.1	10.13	9.71	9.19	8.93	10.15
Field pH	s.u.		7.7							7.26	7.42	7.66	7.28	6.81	7.72	7.49	7.57	7.41	7.75	7.69	7.81	7.81	7.73	7.75	7.89
Field Specific Conductivity	umhos/cm		98							127	229	250	228	260	256	264	265	263	233.2	318	395	420	439	429	456
Flow	Gallons Per Min		NM	NF-DRY	NF-DRY	NF-DRY	NF-DRY	NF-DRY	NF-DRY	NM	9.7	8	7.79	10.51	6.24	6.78	6.27	4.78	5.2	8.7	8.1	8	5.44	3.12	3.77
Water Temperature	Deg C		12.3							10.3	4.9	7	7.6	8.5	10	8.4	5.7	6	8.3	5.4	4.3	5.4	6.83	9	8.3
Physical Parameters																									
pH	s.u.																								
pH Measurement Temp	Deg C																								
Total Dissolved Solids	mg/L		69																						
Total Suspended Solids	mg/L		<10																						
Major Constituents - Commons Ions																									
Alkalinity as CaCO3	mg/L		42																						
Calcium (DIS)	mg/L		12																						
Chloride	mg/L		<1																						
Fluoride	mg/L	4	<0.1																						
Hardness as CaCO3	mg/L		45																						
Magnesium (DIS)	mg/L		3																						
Potassium (DIS)	mg/L		<1																						
Sodium (DIS)	mg/L		1																						
Sulfate	mg/L		2																						
Nutrients																									
Nitrate + Nitrite as N	mg/L	10	0.31																						
Metals - Trace Constituents																									
Aluminum (DIS)	mg/L		0.71 J																						
Antimony (DIS)	mg/L	0.006	<0.0005																						
Arsenic (DIS)	mg/L	0.01	0.001																						
Barium (DIS)	mg/L	1	0.315																						
Beryllium (DIS)	mg/L	0.004	<0.0008																						
Cadmium (DIS)	mg/L	0.005	<0.00003																						
Chromium (DIS)	mg/L	0.1	<0.01																						
Cobalt (DIS)	mg/L		<0.01																						
Copper (DIS)	mg/L	1.3	<0.002																						
Iron (DIS)	mg/L		0.38																						
Lead (DIS)	mg/L	0.015	<0.0003																						
Manganese (DIS)	mg/L		<0.005																						
Mercury (DIS)	ug/L		<0.005																						
Molybdenum (DIS)	mg/L		<0.002																						
Nickel (DIS)	mg/L	0.1	0.002																						
Selenium (DIS)	mg/L	0.05	<0.0002																						
Silver (DIS)	mg/L	0.1	<0.0002																						
Strontium (DIS)	mg/L	4	0.0456 L																						
Thallium (DIS)	mg/L	0.002	<0.0002																						
Uranium (DIS)	mg/L	0.03	<0.0002																						
Zinc (DIS)	mg/L	2	<0.005																						

Definitions:

J = Field Duplicate sample exceeded QA/QC comparison contr
U = Field Blank sample exceeded QA/QC comparison control l
H = Holding time exceeded QA/QC comparison control limit
D = Reporting limit increased due to sample matrix interferenc
L = The lowest available reporting limit was used per method u
NM = Not measured
NF-ICE = Not flowing; ice on ground
NM-ICE = Not measured; ice prohibitive
NF-DRY = Not flowing; Dry ground

Analyte concentration exceeds the standard for:

Human Health Standard Groundwate

Source:

Montana DEQ7 May 2017
Montana DEQ7 June 2019

Station Name	Reporting Units	Human Health Standard Groundwater	DS-8	DS-8	DS-8	DS-9	DS-9	DS-9	DS-9	DS-9	DS-9	DS-9	DS-9	DS-9	DS-9	DS-10	DS-10	DS-10	DS-10	DS-10	DS-10	DS-10	DS-10	DS-10	DS-10
Sample Date			10/24/19 09:10	11/12/19 12:40	12/19/19 11:40	4/23/19 10:55	5/29/19 12:40	6/2/19 06:40	6/18/19 12:50	7/24/19 11:30	8/20/19 11:20	9/24/19 15:24	10/24/19 09:25	11/12/19 12:55	12/19/19 11:30	4/23/19 11:10	5/29/19 13:00	6/2/19 06:40	6/18/19 13:10	7/24/19 11:15	8/20/19 11:35	9/24/19 15:40	10/24/19 09:45	11/12/19 13:10	12/19/19 11:15
Sample ID			BBC-1910-110	BBC-1911-121	BBC-1912-104	BBC-1904-101	BBC-1905-103	BBC-1905-103	BBC-1906-101	BBC-1907-103	BBC-1908-102	BBC-1909-129	BBC-1910-111	BBC-1911-122	BBC-1912-103	BBC-1904-102	BBC-1905-104	BBC-1905-104	BBC-1906-102	BBC-1907-102	BBC-1908-103	BBC-1909-130	BBC-1910-112	BBC-1911-123	BBC-1912-102
Lab Name			Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
Remarks			No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample
Lab Sample ID																									
Field Parameters																									
Dissolved Oxygen	mg/L		9.62	10.5	10.21	9.41	9.69	9.69	8.73	8.1	8.03	8.94	10.3	14.92	10.4	9.92	9.26	9.26	7.67	8.55	8.85	9	9.16	13.51	9.15
Field pH	s.u.		7.99	7.93	7.88	7.78	7.87	7.87	7.73	7.84	7.85	7.98	8.07	7.89	7.92	7.87	7.52	7.52	7.36	7.68	7.63	7.8	7.78	7.51	7.87
Field Specific Conductivity	umhos/cm		463	457	467	328	358	358	360	355	367	375	375	372	385	307	401	401	400	338	384	391	393	389	379
Flow	Gallons Per Min		2.28	2.23	1.86	12.5	4	4	6.74	10.88	7.26	4.75	3.82	3.54	2.18	7.9	6.8	6.8	5	3.97	3.71	2.89	1.81	1.26	1.06
Water Temperature	Deg C		4.5	4.3	2.9	4.3	6.1	6.1	7.5	10.9	9.4	7.9	2.3	2.4	1.7	3.6	5.9	5.9	7	9.7	7.9	7.6	4.5	3.9	5.7
Physical Parameters																									
pH	s.u.																								
pH Measurement Temp	Deg C																								
Total Dissolved Solids	mg/L																								
Total Suspended Solids	mg/L																								
Major Constituents - Commons Ions																									
Alkalinity as CaCO3	mg/L																								
Calcium (DIS)	mg/L																								
Chloride	mg/L																								
Fluoride	mg/L	4																							
Hardness as CaCO3	mg/L																								
Magnesium (DIS)	mg/L																								
Potassium (DIS)	mg/L																								
Sodium (DIS)	mg/L																								
Sulfate	mg/L																								
Nutrients																									
Nitrate + Nitrite as N	mg/L	10																							
Metals - Trace Constituents																									
Aluminum (DIS)	mg/L																								
Antimony (DIS)	mg/L	0.006																							
Arsenic (DIS)	mg/L	0.01																							
Barium (DIS)	mg/L	1																							
Beryllium (DIS)	mg/L	0.004																							
Cadmium (DIS)	mg/L	0.005																							
Chromium (DIS)	mg/L	0.1																							
Cobalt (DIS)	mg/L																								
Copper (DIS)	mg/L	1.3																							
Iron (DIS)	mg/L																								
Lead (DIS)	mg/L	0.015																							
Manganese (DIS)	mg/L																								
Mercury (DIS)	ug/L																								
Molybdenum (DIS)	mg/L																								
Nickel (DIS)	mg/L	0.1																							
Selenium (DIS)	mg/L	0.05																							
Silver (DIS)	mg/L	0.1																							
Strontium (DIS)	mg/L	4																							
Thallium (DIS)	mg/L	0.002																							
Uranium (DIS)	mg/L	0.03																							
Zinc (DIS)	mg/L	2																							

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Analyte concentration exceeds the standard for:

Human Health Standard Groundwate

Source:

Montana DEQ7 May 2017
Montana DEQ7 June 2019

Station Name	Reporting Units	Human Health Standard Groundwater	DS-11	DS-11	DS-11	DS-11	DS-11	DS-11	DS-11	DS-11	DS-11	SEEP-1	SEEP-2	SEEP-3	SEEP-4	SEEP-5	SEEP-6	SEEP-7	SEEP-8	SEEP-9	SEEP-10	SP-1	SP-2	SP-3	SP-3
Sample Date			4/23/19 12:15	5/29/19 11:25	6/18/19 15:05	7/24/19 10:45	8/20/19 12:00	9/24/19 16:00	10/24/19 10:10	11/12/19 13:40	12/19/19 10:30	9/24/19 13:55	9/24/19 17:15	9/25/19 14:55	9/25/19 11:40	9/25/19 12:05	9/25/19 11:55	9/25/19 12:30	9/24/19 18:00	9/24/19 11:55	9/25/19 10:05	9/24/19 17:35	9/24/19 14:30	1/10/19 12:20	2/22/19 00:00
Sample ID			BBC-1904-103	BBC-1905-100	BBC-1906-105	BBC-1907-101	BBC-1908-104	BBC-1909-131	BBC-1910-113	BBC-1911-124	BBC-1912-100	BBC-1909-121	BBC-1909-133	BBC-1909-151	BBC-1909-142	BBC-1909-144	BBC-1909-143	BBC-1909-145	BBC-1909-135	BBC-1909-118	BBC-1909-139	BBC-1909-134	BBC-1909-126	BBC-1901-117	BBC-1902-122
Lab Name			Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
Remarks			No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample	No Sample
Lab Sample ID																									
Field Parameters																									
Dissolved Oxygen	mg/L		9.94	11.48	9.78	10.09	9.29	10.25	9.89	14.8	9.6		0.78		7.84	9.92	3.35			6.28	7.29	2.63			
Field pH	s.u.		7.85	7.77	7.82	7.74	7.85	7.92	7.86	7.68	7.72		7.86		7.96	6.59	7.04			7.53	7.72	7.66			
Field Specific Conductivity	umhos/cm		415	421	429	427	418	445	452	447	439		411		67	76	84			148	376	441			
Flow	Gallons Per Min		20.1	18.2	13.04	7.38	3.75	2.09	2.51	2.6	0.93	NF-DRY	NF	NF-DRY	NF	NM	NF	NF	NF-DRY	NM	2.6	NM	NF-DRY	NF-ICE	NF-ICE
Water Temperature	Deg C		4.7	4.8	5.2	7.5	10.2	7.3	3.3	2.3	3		8.9		10.7	10.1	9.1			9.6	7.8	8.4			
Physical Parameters																									
pH	s.u.																								
pH Measurement Temp	Deg C																								
Total Dissolved Solids	mg/L																								
Total Suspended Solids	mg/L																								
Major Constituents - Commons Ions																									
Alkalinity as CaCO3	mg/L																								
Calcium (DIS)	mg/L																								
Chloride	mg/L																								
Fluoride	mg/L	4																							
Hardness as CaCO3	mg/L																								
Magnesium (DIS)	mg/L																								
Potassium (DIS)	mg/L																								
Sodium (DIS)	mg/L																								
Sulfate	mg/L																								
Nutrients																									
Nitrate + Nitrite as N	mg/L	10																							
Metals - Trace Constituents																									
Aluminum (DIS)	mg/L																								
Antimony (DIS)	mg/L	0.006																							
Arsenic (DIS)	mg/L	0.01																							
Barium (DIS)	mg/L	1																							
Beryllium (DIS)	mg/L	0.004																							
Cadmium (DIS)	mg/L	0.005																							
Chromium (DIS)	mg/L	0.1																							
Cobalt (DIS)	mg/L																								
Copper (DIS)	mg/L	1.3																							
Iron (DIS)	mg/L																								
Lead (DIS)	mg/L	0.015																							
Manganese (DIS)	mg/L																								
Mercury (DIS)	ug/L																								
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Nickel (DIS)	mg/L	0.1																							
Selenium (DIS)	mg/L	0.05																							
Silver (DIS)	mg/L	0.1																							
Strontium (DIS)	mg/L	4																							
Thallium (DIS)	mg/L	0.002																							
Uranium (DIS)	mg/L	0.03																							
Zinc (DIS)	mg/L	2																							

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Analyte concentration exceeds the standard for:

Human Health Standard Groundwate

Source:

Montana DEQ7 May 2017
Montana DEQ7 June 2019

Station Name	Reporting Units	Human Health Standard Groundwater	SP-3	SP-3	SP-3	SP-3	SP-3	SP-3	SP-3	SP-3	SP-3	SP-3	SP-4	SP-4	SP-4	SP-4	SP-4	SP-4	SP-4	SP-4	SP-4	SP-4	SP-4
Sample Date			3/26/19 10:45	4/24/19 12:45	5/29/19 17:00	6/19/19 13:45	7/24/19 16:20	8/20/19 16:15	9/24/19 13:35	10/24/19 14:45	11/12/19 15:30	12/19/19 14:05	1/10/19 12:45	2/22/19 14:50	2/22/19 15:05	3/26/19 09:25	4/24/19 14:00	5/30/19 12:25	6/19/19 14:40	7/25/19 09:15	8/21/19 08:30	9/24/19 14:40	10/24/19 13:50
Sample ID			BBC-1903-102	BBC-1904-120	BBC-1905-114	BBC-1906-118	BBC-1907-114	BBC-1908-113	BBC-1909-123	BBC-1910-124	BBC-1911-126	BBC-1912-129	BBC-1901-109	BBC-1902-111	BBC-1902-112	BBC-1903-100	BBC-1904-123	BBC-1905-124	BBC-1906-121	BBC-1907-118	BBC-1908-117	BBC-1909-127	BBC-1910-121
Lab Name			HYDRO	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
Remarks			No Sample									No Sample			Duplicate								
Lab Sample ID				H19040763-007	H19050915-007	H19060535-005	H19070585-006	H19080622-005	H19090658-002	H19100566-009	H19110279-003		H19010186-001	H19020364-003	H19020364-004	H19030475-001	H19040763-009	H19050915-009	H19060535-007	H19070585-009	H19080622-007	H19090658-004	H19100566-007
Field Parameters																							
Dissolved Oxygen	mg/L			9.92	9.39	9.07	8.66	5.02	8.87	10.27	14.2		9.7	9.92		9.66	9.8	11.12	9.1	9.13	9.84	9.48	9.66
Field pH	s.u.			7.21	7.16	7.26	7.79	7.73	7.2	7.62	7.78		8.14	7.86 A		8.02	7.75	7.84	7.7	7.59	7.85	7.72	7.78
Field Specific Conductivity	umhos/cm			91	111	129	155	168	195	198	183		406	428		438	442	430	422	428	415	416	429
Flow	Gallons Per Min		NF-ICE	NM-ICE	8.1	2.6	1.93	0.94	0.31	0.18	<0.009	NF-DRY	3.4	NM-ICE		2.6	42.2	34.56	25.13	15.26	11.2	6.73	4.35
Water Temperature	Deg C			3.5	5.4	7.3	9.9	17	9.4	3.6	1.4		5.2	3.6		5.6	6.7	7.8	7.2	6.7	7.1	7.3	7
Physical Parameters																							
pH	s.u.													7.8 H	8 H								
pH Measurement Temp	Deg C													16	16.2								
Total Dissolved Solids	mg/L			157	119	118	113	123	134	123	136		222	234	237	234	248	235	241	236	229	238	231
Total Suspended Solids	mg/L			<10	<10	<10	20 J	61	<10	<10	<10		10	11	20	<10	<10	<10	<10	10 J	<10	14	<10
Major Constituents - Commons Ions																							
Alkalinity as CaCO3	mg/L			37	48	54	69	83	93	96	95		210	200	200	200	200	200	190	190	200	200	200
Calcium (DIS)	mg/L			13	17	17	22	25	27	29	28		53	53	53	50	50	46	47	47	47	47	49
Chloride	mg/L			1	1	<1	<1	1	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Fluoride	mg/L	4		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Hardness as CaCO3	mg/L			46	57	58	75	83	90	98	96		248	246	245	231	231	214	216	219	217	216	227
Magnesium (DIS)	mg/L			3	4	4	5	5	6	6	6		28	28	27	26	26	24	24	25	24	24	25
Potassium (DIS)	mg/L			2	1	2	1	1	1	1	1		2	2	2	2	2	2	2	2	2	2	2
Sodium (DIS)	mg/L			2	2	2	2	3	3	3	3		2	2	2	2	2	2	2	2	2	2	2
Sulfate	mg/L			4	7	6	6	7	6	6	6		38	38	38	40	39	34	33	26	32	31	30
Nutrients																							
Nitrate + Nitrite as N	mg/L	10		0.14	0.1	0.17	0.19	0.22	0.22	0.28	0.3		0.25	0.25	0.24	0.24	0.25	0.24	0.3	0.28	0.32	0.29	0.27
Metals - Trace Constituents																							
Aluminum (DIS)	mg/L			2.18	1.2	0.198	0.396 J	0.156	0.065	0.114	0.178		0.013	<0.009	<0.009	<0.009	<0.009	<0.009	0.01	<0.009	<0.009	<0.009	<0.009
Antimony (DIS)	mg/L	0.006		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (DIS)	mg/L	0.01		0.003	0.002	0.002	0.002	0.002	0.001	0.001	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Barium (DIS)	mg/L	1		0.201	0.214	0.229	0.262	0.29	0.315	0.312	0.29		0.114	0.114	0.114	0.113	0.112	0.108	0.109	0.113	0.112	0.115	0.117
Beryllium (DIS)	mg/L	0.004		<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008		<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Cadmium (DIS)	mg/L	0.005		<0.00003	0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003		<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Chromium (DIS)	mg/L	0.1		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt (DIS)	mg/L			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper (DIS)	mg/L	1.3		0.006	0.004	0.003	<0.002	<0.002	<0.002	<0.002	<0.002		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Iron (DIS)	mg/L			1.42	0.81	0.45	0.06	0.1	0.03	0.07	0.09		0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	0.08	<0.02	<0.02	0.03
Lead (DIS)	mg/L	0.015		0.0005	0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003		<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Manganese (DIS)	mg/L			0.009	0.005	<0.005	<0.005	0.011	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.007	0.018	0.008	0.006	<0.005
Mercury (DIS)	ug/L			0.026	0.02	0.009	0.006	0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Molybdenum (DIS)	mg/L			<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Nickel (DIS)	mg/L	0.1		0.004	0.003	0.002	0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium (DIS)	mg/L	0.05		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		0.0004	0.0004	0.0004	0.0003	0.0003	0.0003	0.0003	0.0003	0.0004	0.0004	0.0003
Silver (DIS)	mg/L	0.1		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Strontium (DIS)	mg/L	4		0.0398	0.0473	0.0546	0.0602	0.0724	0.0851	0.0848	0.0809		0.0742	0.0753	0.0749	0.0725	0.0718	0.0698	0.0704	0.0641	0.0706	0.0738	0.0722
Thallium (DIS)	mg/L	0.002		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		0.0004	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0002	0.0002	0.0003	0.0003
Uranium (DIS)	mg/L	0.03		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	0.0002		0.0005	0.0005	0.0005	0.0005	0.0005	0.0004	0.0005	0.0005	0.0004	0.0005	0.0005
Zinc (DIS)	mg/L	2		0.006	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.003

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Analyte concentration exceeds the standard for:

Human Health Standard Groundwate

Source:

Montana DEQ7 May 2017
Montana DEQ7 June 2019

Station Name	Reporting Units	Human Health Standard Groundwater	SP-4	SP-4	SP-5	SP-5	SP-5	SP-5	SP-5	SP-5	SP-5	SP-5	SP-5	SP-5	SP-5	SP-5	SP-5	SP-6	SP-6	SP-6	SP-6	SP-6	SP-6
Sample Date			11/13/19 09:45	12/19/19 15:00	1/10/19 16:30	2/22/19 15:20	3/26/19 14:50	4/23/19 15:15	5/29/19 15:15	6/20/19 12:25	6/20/19 12:50	7/24/19 14:20	8/20/19 14:35	9/25/19 10:45	10/24/19 12:40	11/12/19 10:25	12/19/19 13:10	1/10/19 12:30	2/22/19 00:00	3/26/19 13:55	4/24/19 13:30	5/30/19 12:15	6/19/19 14:30
Sample ID			BBC-1911-130	BBC-1912-109	BBC-1901-122	BBC-1902-117	BBC-1903-110	BBC-1904-108	BBC-1905-109	BBC-1906-133	BBC-1906-134	BBC-1907-109	BBC-1908-109	BBC-1909-141	BBC-1910-118	BBC-1911-119	BBC-1912-123	BBC-1901-118	BBC-1902-113	BBC-1903-107	BBC-1904-122	BBC-1905-123	BBC-1906-120
Lab Name			Energy Labs	Energy Labs	Hydro	Hydro	HYDRO	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs
Remarks					No Sample	No Sample	No Sample				Duplicate					No Sample	No Sample	No Sample	No Sample				
Lab Sample ID			H19110279-006	H19120486-002				H19040763-003	H19050915-004	H19060535-012	H19060535-013	H19070585-003	H19080622-003	H19090658-007	H19100566-005					H19030475-002	H19040763-008	H19050915-008	H19060535-006
Field Parameters																							
Dissolved Oxygen	mg/L		12.09	9.89				8.8	8.67	8.03		6.5	6.29	7.85	8.37					9.68	9.62	11.61	9.2
Field pH	s.u.		7.61	7.78				7.8	7.84	7.76		8.09	7.99	7.82	7.81					8.17	7.6	7.96	7.67
Field Specific Conductivity	umhos/cm		425	430				344	409	406		391	412	377	389					256	253	248	188
Flow	Gallons Per Min		8.08	5.4	NF-DRY	NF-DRY	NF-DRY	42.2	25.1	9.43		2.6	1.93	0.18	NF	NF-DRY	NF-DRY	NM-ICE	NM-ICE	0.83	4.12	3.5	3.36
Water Temperature	Deg C		6.5	5.8				5.3	9.3	8.4		16.6	16.8	10.2	3.4					4.7	5.5	6.8	7.2
Physical Parameters																							
pH	s.u.																						
pH Measurement Temp	Deg C																						
Total Dissolved Solids	mg/L		248	229				192	214	228	229	223	233	239	212					163	153	149	164
Total Suspended Solids	mg/L		<10	<10				15 J	10	<10	<10	52 J	89	21	20 J					<10	<10	<10	<10
Major Constituents - Commons Ions																							
Alkalinity as CaCO3	mg/L		200	200				180	220	210	210	220	230	230	210					140	130	130	130
Calcium (DIS)	mg/L		53	48				49	55	60	59	63	57	61	56					35	33	32	33
Chloride	mg/L		<1	<1				<1	<1	<1	<1	<1	<1	<1	<1					<1	<1	<1	<1
Fluoride	mg/L	4	0.2	0.2				0.1	0.1	<0.1	<0.1	0.1	<0.1	<0.1	0.1					0.2	0.1	0.1	0.1
Hardness as CaCO3	mg/L		247	233				184	209	227	221	237	216	231	218					142	133	129	133
Magnesium (DIS)	mg/L		28	27				15	17	19	18	19	18	19	19					13	12	12	12
Potassium (DIS)	mg/L		2	2				<1	<1	<1	<1	<1	<1	<1	1					<1	1	<1	<1
Sodium (DIS)	mg/L		2	2				1	2	2	2	2	2	2	2					2	2	2	2
Sulfate	mg/L		33	34				9	10	10	10	9	10	8	9					9	7	10	10
Nutrients																							
Nitrate + Nitrite as N	mg/L	10	0.28	0.28				0.08	0.04	0.06	0.06	0.03	0.02	<0.01	<0.01					0.39	0.65	0.41	0.41
Metals - Trace Constituents																							
Aluminum (DIS)	mg/L		<0.009	<0.009				0.018	<0.009	<0.009	<0.009	<0.009	0.029	<0.009	<0.009					0.045	0.052	<0.009	<0.009
Antimony (DIS)	mg/L	0.006	<0.0005	<0.0005				<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005					<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (DIS)	mg/L	0.01	<0.001	<0.001				<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					<0.001	<0.001	<0.001	<0.001
Barium (DIS)	mg/L	1	0.11	0.113				0.042	0.049	0.05	0.05	0.057	0.058	0.068	0.054					0.188	0.186	0.185	0.192
Beryllium (DIS)	mg/L	0.004	<0.0008	<0.0008				<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008					<0.0008	<0.0008	<0.0008	<0.0008
Cadmium (DIS)	mg/L	0.005	<0.00003	<0.00003				<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003					<0.00003	<0.00003	<0.00003	<0.00003
Chromium (DIS)	mg/L	0.1	<0.01	<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					<0.01	<0.01	<0.01	<0.01
Cobalt (DIS)	mg/L		<0.01	<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					<0.01	<0.01	<0.01	<0.01
Copper (DIS)	mg/L	1.3	<0.002	<0.002				<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002					<0.002	<0.002	<0.002	<0.002
Iron (DIS)	mg/L		0.06 B	<0.02				<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.03					0.03	0.03	<0.02	<0.02
Lead (DIS)	mg/L	0.015	<0.0003	<0.0003				<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003					<0.0003	<0.0003	<0.0003	<0.0003
Manganese (DIS)	mg/L		<0.005	<0.005				<0.005	<0.005	<0.005	<0.005	<0.005	0.017	0.013	0.016					<0.005	<0.005	<0.005	<0.005
Mercury (DIS)	ug/L		<0.005	<0.005				<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005					<0.005	<0.005	<0.005	<0.005
Molybdenum (DIS)	mg/L		<0.002	<0.002				<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002					<0.002	<0.002	<0.002	<0.002
Nickel (DIS)	mg/L	0.1	<0.001	<0.001				<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					<0.001	<0.001	<0.001	<0.001
Selenium (DIS)	mg/L	0.05	0.0004	0.0005				<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002					<0.0002	<0.0002	<0.0002	<0.0002
Silver (DIS)	mg/L	0.1	<0.0002	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002					<0.0002	<0.0002	<0.0002	<0.0002
Strontium (DIS)	mg/L	4	0.0718	0.072				0.105	0.131	0.132	0.133	0.126	0.136	0.147	0.136					0.0734	0.0673	0.0697	0.0722
Thallium (DIS)	mg/L	0.002	0.0003	0.0003				<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002					0.0005	0.0005	0.0004	0.0005
Uranium (DIS)	mg/L	0.03	0.0005	0.0005				0.0004	0.0006	0.0006	0.0006	0.0006	0.0005	0.0006	0.0007					0.0004	0.0004	0.0004	0.0004
Zinc (DIS)	mg/L	2	0.004	<0.002				<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002					<0.002	<0.002	<0.002	<0.002

Definitions:

J = Field Duplicate sample exceeded QA/QC comparison contro
U = Field Blank sample exceeded QA/QC comparison control li
H = Holding time exceeded QA/QC comparison control limits
D = Reporting limit increased due to sample matrix interferenc
L = The lowest available reporting limit was used per method us
NM = Not measured
NF-ICE = Not flowing; ice on ground
NM-ICE = Not measured; ice prohibitive
NF-DRY = Not flowing; Dry ground

Analyte concentration exceeds the standard for:

Human Health Standard Groundwater

Source:

Montana DEQ7 May 2017
Montana DEQ7 June 2019

Station Name	Reporting Units	Human Health Standard Groundwater	SP-6	SP-6	SP-6	SP-6	SP-6	SP-6	SP-6	SP-7	SP-7	SP-7	SP-7	SP-7	SP-7	SP-7	SP-7	SP-7	SP-7	SP-7	SP-7	SP-7
Sample Date			7/25/19 08:55	8/20/19 17:00	9/24/19 14:15	10/24/19 15:30	11/12/19 16:00	11/12/19 16:10	12/19/19 14:45	1/10/19 14:20	1/10/19 14:45	2/22/19 14:20	3/27/19 10:50	4/24/19 14:30	4/24/19 15:00	5/30/19 13:10	6/19/19 16:40	7/25/19 09:35	8/21/19 09:30	9/25/19 14:00	10/24/19 15:50	11/13/19 10:30	12/19/19 15:20
Sample ID			BBC-1907-117	BBC-1908-115	BBC-1909-125	BBC-1910-126	BBC-1911-129	BBC-1911-135	BBC-1912-108	BBC-1901-112	BBC-1901-113	BBC-1902-110	BBC-1903-123	BBC-1904-124	BBC-1904-125	BBC-1905-126	BBC-1906-125	BBC-1907-119	BBC-1908-119	BBC-1909-149	BBC-1910-127	BBC-1911-131	BBC-1912-110
Lab Name			Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
Remarks								Duplicate			Duplicate				Duplicate								
Lab Sample ID			H19070585-008	H19080622-006	H19090658-003	H19100566-010	H19110279-004	H19110279-005	H19120486-001	H19010186-004	H19010186-005	H19020364-002	H19030475-008	H19040763-010	H19040763-011	H19050915-011	H19060535-009	H19070585-010	H19080622-009	H19090658-011	H19100566-011	H19110279-007	H19120486-003
Field Parameters																							
Dissolved Oxygen	mg/L		8.75	8.73	9.08	9.43	5.51		9.57	5.83		4.59	2.46	2.7		4.08	2.7	2	2.87	2.92	2.03	3.97	2.87
Field pH	s.u.		7.1	7.75	7.6	7.67	7.7		7.9	7.54		7.37 A	7.1	7.65		7.36	7.24	7.43	7.79	7.26	7.39	7.01	7.29
Field Specific Conductivity	umhos/cm		279	284	292	292	287		285	311		330	341	330		334	329	336	325	336	334	334	340
Flow	Gallons Per Min		2.46	0.98	1.3	0.93	0.94		0.83	15.3		8.08	13.02	59.7		19.7	50.27	99.64	17.1	15.26	13.02	19.75	22.4
Water Temperature	Deg C		8	9.1	8.2	6.8	6.5		6.8	5.07		6.14	6.6	7.4		7	7	7.3	7.9	7.4	7.2	7	6.7
Physical Parameters																							
pH	s.u.											7.4 H											
pH Measurement Temp	Deg C											16.1											
Total Dissolved Solids	mg/L		160	169	176	165	175	176	165	174	168	176	186	188	189	180	196	188	190	192	185	195	184
Total Suspended Solids	mg/L		<10	73	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Major Constituents - Commons Ions																							
Alkalinity as CaCO3	mg/L		130	150	150	150	140	140	140	170	170	170	170	160	170	170	160	160	170	170	170	170	170
Calcium (DIS)	mg/L		36	36	36	37	40	41	34	43	43	42	45	42	42	41	40	42	41	43	44	43	42
Chloride	mg/L		<1	1	1	<1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Fluoride	mg/L	4	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Hardness as CaCO3	mg/L		146	146	144	149	165	165	144	171	170	166	175	163	163	161	156	162	159	168	169	167	169
Magnesium (DIS)	mg/L		13	14	13	14	15	15	14	15	15	15	15	14	14	14	13	14	14	15	14	15	16
Potassium (DIS)	mg/L		<1	1	<1	1	<1	<1	<1	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Sodium (DIS)	mg/L		2	2	2	2	2	2	2	5	5	5	5	4	5	5	5	5	5	5	5	5	5
Sulfate	mg/L		9	10	10	10	11	11	11	11	11	11	11	11	11	12	12	10	11	10	10	11	11
Nutrients																							
Nitrate + Nitrite as N	mg/L	10	0.36	0.46	0.43	0.41	0.41	0.41	0.4	0.3	0.3	0.31	0.31	0.32	0.32	0.31	0.33	0.3	0.37	0.34	0.32	0.33	0.34
Metals - Trace Constituents																							
Aluminum (DIS)	mg/L		<0.009	<0.009	<0.009	<0.009	0.042	0.044	<0.009	<0.009	<0.009	<0.009	<0.009	0.01	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009
Antimony (DIS)	mg/L	0.006	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (DIS)	mg/L	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.003	0.004	0.004	0.004	0.004	0.004
Barium (DIS)	mg/L	1	0.208	0.212	0.214	0.216	0.203	0.199	0.202	0.113	0.114	0.116	0.115	0.112	0.111	0.113	0.118	0.116	0.118	0.116	0.118	0.111	0.115
Beryllium (DIS)	mg/L	0.004	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Cadmium (DIS)	mg/L	0.005	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Chromium (DIS)	mg/L	0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt (DIS)	mg/L		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper (DIS)	mg/L	1.3	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Iron (DIS)	mg/L		<0.02	<0.02	<0.02	0.02	0.03	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	<0.02
Lead (DIS)	mg/L	0.015	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Manganese (DIS)	mg/L		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Mercury (DIS)	ug/L		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Molybdenum (DIS)	mg/L		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Nickel (DIS)	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium (DIS)	mg/L	0.05	<0.0002	0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0004	0.0003	0.0004	0.0003	0.0003	0.0002	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003
Silver (DIS)	mg/L	0.1	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Strontium (DIS)	mg/L	4	0.0696	0.0787	0.0818	0.0829	0.078	0.0775	0.0769	0.17	0.172	0.168	0.17	0.165	0.164	0.165	0.171	0.154	0.169	0.174	0.175	0.168	0.165
Thallium (DIS)	mg/L	0.002	0.0005	0.0005	0.0006	0.0006	0.0006	0.0005	0.0005	0.001	0.001	0.001	0.0011	0.001	0.001	0.001	0.001	0.001	0.001	0.0011	0.0012	0.001	0.001
Uranium (DIS)	mg/L	0.03	0.0004	0.0004	0.0005	0.0004	0.0004	0.0004	0.0004	0.0009	0.0009	0.001	0.001	0.0009	0.0008	0.0009	0.0009	0.0009	0.0008	0.0009	0.0009	0.0009	0.0009	0.0009
Zinc (DIS)	mg/L	2	<0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

Definitions:

J = Field Duplicate sample exceeded QA/QC comparison contr
U = Field Blank sample exceeded QA/QC comparison control l
H = Holding time exceeded QA/QC comparison control limit
D = Reporting limit increased due to sample matrix interferenc
L = The lowest available reporting limit was used per method u
NM = Not measured
NF-ICE = Not flowing; ice on ground
NM-ICE = Not measured; ice prohibitive
NF-DRY = Not flowing; Dry ground

Analyte concentration exceeds the standard for:

Human Health Standard Groundwate

Source:

Montana DEQ7 May 2017
Montana DEQ7 June 2019

Station Name	Reporting Units	Human Health Standard Groundwater	SP-7	SP-8	SP-9	SP-10	SP-10	SP-10	SP-10	SP-10	SP-10	SP-10	SP-10	SP-10	SP-10	SP-10	SP-10	SP-10	SP-11	SP-11	SP-11	SP-11	SP-11
Sample Date			12/19/19 15:40	9/25/19 08:20	9/25/19 08:35	1/10/19 16:00	2/22/19 00:00	3/26/19 16:30	4/23/19 14:20	5/29/19 14:20	6/18/19 16:30	7/24/19 13:10	8/20/19 13:20	9/24/19 16:45	10/24/19 11:20	10/24/19 11:45	11/12/19 14:25	12/19/19 12:55	1/10/19 13:05	2/22/19 13:40	3/27/19 08:40	5/29/19 15:30	6/19/19 11:10
Sample ID			BBC-1912-111	BBC-1909-136	BBC-1909-137	BBC-1901-120	BBC-1902-116	BBC-1903-112	BBC-1904-106	BBC-1905-106	BBC-1906-108	BBC-1907-106	BBC-1908-106	BBC-1909-132	BBC-1910-115	BBC-1910-116	BBC-1911-125	BBC-1912-106	BBC-1901-110	BBC-1902-109	BBC-1903-119	BBC-1905-110	BBC-1906-112
Lab Name			Energy Labs	Hydro	Hydro	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Energy Labs	Energy Labs	HYDRO	Hydro	Energy Labs
Remarks			Duplicate	No Sample	No Sample	No Sample	No Sample									Duplicate		No Sample			No Sample	No Sample	
Lab Sample ID			H19120486-004					H19030475-005	H19040763-001	H19050915-001	H19060535-001	H19070585-001	H19080622-001	H19090658-005	H19100566-002	H19100566-003	H19110279-002		H19010186-002	H19020364-001			H19060535-002
Field Parameters																							
Dissolved Oxygen	mg/L			6.21	7.12			7.73	10.01	8.88	7.73	7.83	7.95	7.98	7.95				8.36	6.09			6.89
Field pH	s.u.			7.04	7.61			7.83	8.03	7.98	7.69	7.8	8.1	8.13	7.7				7.98	7.59 A			7.27
Field Specific Conductivity	umhos/cm			386	371			400	326	372	395	394	402	418	421				180	183			192
Flow	Gallons Per Min			6.73	5.39	NF-DRY	NM-ICE	0.01	NM	54.8	25.13	6.73	2.6	1.93	0.06		<0.06	NF-DRY	NM	NM	NM	NM	NM
Water Temperature	Deg C			7.4	6.1			3.8	5.6	10.1	6.2	9.6	12.2	8.6	6.07				5.6	6.2			6.5
Physical Parameters																							
pH	s.u.																			7.3 H			
pH Measurement Temp	Deg C																			16.2			
Total Dissolved Solids	mg/L		182					218	162	196	216	208	235	235	225	219	239		99	108			127
Total Suspended Solids	mg/L		<10					<10	399 J	<10	<10	<10	<10	12	300 J	240	58 J		<10	10			<10
Major Constituents - Commons Ions																							
Alkalinity as CaCO3	mg/L		170					200	150	200	200	210	220	220	220	220	220		93	93			92
Calcium (DIS)	mg/L		42					55	38	51	52	58	54	55	62	57	57		23	23			23
Chloride	mg/L		2					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		<1	<1			<1
Fluoride	mg/L	4	0.3					0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		0.2	0.2			0.1
Hardness as CaCO3	mg/L		168					221	147	202	204	228	217	217	240	230	228		93	94			90
Magnesium (DIS)	mg/L		15					20	13	18	18	20	20	20	20	21	21		9	9			8
Potassium (DIS)	mg/L		3					<1	<1	<1	<1	1	1	1	1	1	1		1	1			1
Sodium (DIS)	mg/L		5					2	1	1	2	2	2	2	2	2	2		4	3			3
Sulfate	mg/L		11					16	6	11	12	12	15	15	15	15	16		7	7			7
Nutrients																							
Nitrate + Nitrite as N	mg/L	10	0.34					0.24	0.15	0.06	0.14	0.18	0.22	0.24	0.17	0.15	0.21		0.22	0.22			0.25
Metals - Trace Constituents																							
Aluminum (DIS)	mg/L		<0.009					<0.009	0.024	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009		0.022	0.022			0.079
Antimony (DIS)	mg/L	0.006	<0.0005					<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005	<0.0005			<0.0005
Arsenic (DIS)	mg/L	0.01	0.004					<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		0.005	0.005			0.007
Barium (DIS)	mg/L	1	0.115					0.048	0.03	0.046	0.05	0.052	0.052	0.055	0.055	0.054	0.051		0.28	0.276			0.303
Beryllium (DIS)	mg/L	0.004	<0.0008					<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008		<0.0008	<0.0008			<0.0008
Cadmium (DIS)	mg/L	0.005	<0.00003					<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003		<0.00003	<0.00003			<0.00003
Chromium (DIS)	mg/L	0.1	<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01			<0.01
Cobalt (DIS)	mg/L		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01			<0.01
Copper (DIS)	mg/L	1.3	<0.002					<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		<0.002	<0.002			<0.002
Iron (DIS)	mg/L		<0.02					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.08	0.08	<0.02		<0.02	<0.02			0.04
Lead (DIS)	mg/L	0.015	<0.0003					<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003		<0.0003	<0.0003			<0.0003
Manganese (DIS)	mg/L		<0.005					<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.113	0.103	0.02		<0.005	<0.005			<0.005
Mercury (DIS)	ug/L		<0.005					<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005			<0.005
Molybdenum (DIS)	mg/L		<0.002					<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		<0.002	<0.002			<0.002
Nickel (DIS)	mg/L	0.1	<0.001					<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001			<0.001
Selenium (DIS)	mg/L	0.05	0.0003					0.0003	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	0.0003	0.0003	0.0003	0.0003		<0.0002	<0.0002			<0.0002
Silver (DIS)	mg/L	0.1	<0.0002					<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002			<0.0002
Strontium (DIS)	mg/L	4	0.166					0.107	0.0748	0.102	0.109	0.104	0.113	0.12	0.12	0.119	0.114		0.102	0.1			0.104
Thallium (DIS)	mg/L	0.002	0.001					<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002			<0.0002
Uranium (DIS)	mg/L	0.03	0.0009					0.0007	0.0004	0.0007	0.0007	0.0007	0.0007	0.0008	0.0008	0.0008	0.0008		0.0003	0.0003			0.0005
Zinc (DIS)	mg/L	2	<0.002					<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		<0.002	0.002			<0.002

Definitions:

J = Field Duplicate sample exceeded QA/QC comparison contro
U = Field Blank sample exceeded QA/QC comparison control l
H = Holding time exceeded QA/QC comparison control limit
D = Reporting limit increased due to sample matrix interferenc
L = The lowest available reporting limit was used per method u
NM = Not measured
NF-ICE = Not flowing; ice on ground
NM-ICE = Not measured; ice prohibitive
NF-DRY = Not flowing; Dry ground

Analyte concentration exceeds the standard for:

Human Health Standard Groundwate

Source:

Montana DEQ7 May 2017
Montana DEQ7 June 2019

Station Name	Reporting Units	Human Health Standard Groundwater	SP-11	SP-11	SP-11	SP-11	SP-11	SP-11	SP-11	SP-12	SP-12	SP-12	SP-12	SP-12	SP-12	SP-12	SP-12	SP-12	SP-12	SP-12	SP-12	SP-12	SP-13
Sample Date			7/25/19 10:15	8/21/19 10:00	8/21/19 10:20	9/25/19 13:00	10/23/19 17:10	11/13/19 11:15	12/20/19 09:15	1/10/19 13:25	2/22/19 16:25	3/27/19 10:10	4/23/19 16:45	5/30/19 12:45	6/19/19 15:55	7/25/19 10:00	8/21/19 09:00	9/25/19 13:20	9/25/19 13:40	10/24/19 13:30	11/13/19 10:50	12/19/19 16:00	9/25/19 14:15
Sample ID			BBC-1907-121	BBC-1908-120	BBC-1908-121	BBC-1909-146	BBC-1910-106	BBC-1911-133	BBC-1912-116	BBC-1901-111	BBC-1902-119	BBC-1903-122	BBC-1904-111	BBC-1905-125	BBC-1906-124	BBC-1907-120	BBC-1908-118	BBC-1909-147	BBC-1909-148	BBC-1910-120	BBC-1911-132	BBC-1912-112	BBC-1909-150
Lab Name			Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro
Remarks					Duplicate			No Sample	No Sample										Duplicate				No Sample
Lab Sample ID			H19070585-012	H19080622-010	H19080622-011	H19090658-008	H19100566-001			H19010186-003	H19020364-005	H19030475-007	H19040763-004	H19050915-010	H19060535-008	H19070585-011	H19080622-008	H19090658-009	H19090658-010	H19100566-006	H19110279-008	H19120486-005	
Field Parameters																							
Dissolved Oxygen	mg/L		6.61	6.93		7.3	6.99			7.78	5.76	4.18	3.6	10.38	6.07	4.6	5.64	7.29	7.29	4.29	0.55	4.4	6.62
Field pH	s.u.		7.65	7.59		7.23	8.08			7.76	7.16	7.25	7.51	7.84	7.71	7.76	8.1	7.17	7.17	7.78	7.36	7.59	7.33
Field Specific Conductivity	umhos/cm		196	192		194	194			421	4.34	437	515	446	400	415	419	433	433	450	454	467	321
Flow	Gallons Per Min		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Water Temperature	Deg C		6.8	6.8		7.7	6.5			5.4	4.5	4.3	6.5	5.5	6.8	8.4	8.7	7.8	7.8	6.2	6.7	5.9	7.4
Physical Parameters																							
pH	s.u.										7.6 H												
pH Measurement Temp	Deg C										16.4												
Total Dissolved Solids	mg/L		122	117	116	120	114			235	234	245	341	246	230	244	239	255	255	243	257	254	
Total Suspended Solids	mg/L		<10	<10	<10	<10	<10			187	78	<10	16 J	115	<10	10 J	<10	<10	<10	26 J	65 J	31	
Major Constituents - Commons Ions																							
Alkalinity as CaCO3	mg/L		92	94	94	96	94			210	210	160	180	210	180	190	200	210	210	210	210	220	
Calcium (DIS)	mg/L		23	23	23	23	26			58	55	42	58	50	47	52	52	55	54	56	57	55	
Chloride	mg/L		<1	<1	<1	<1	<1			8	7	15	36	10	7	8	10	9	9	9	10	10	
Fluoride	mg/L	4	0.1	0.1	0.1	0.1	0.2			0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Hardness as CaCO3	mg/L		91	92	92	94	98			249	238	180	254	214	200	224	222	238	234	240	243	246	
Magnesium (DIS)	mg/L		8	8	8	9	8			26	24	18	26	21	20	23	23	24	24	24	25	26	
Potassium (DIS)	mg/L		1	1	1	1	1			1	1	13	5	1	1	2	1	1	1	1	1	1	
Sodium (DIS)	mg/L		3	3	3	4	4			2	2	3	4	2	2	2	2	2	2	2	2	2	
Sulfate	mg/L		6	7	7	7	7			26	25	21	30	13	19	19	21	20	20	20	22	23	
Nutrients																							
Nitrate + Nitrite as N	mg/L	10	0.22	0.26	0.26	0.24	0.23			0.31	0.29	0.15	0.08	0.12	0.33	0.42	0.26	0.24	0.24	0.23	0.22	0.2	
Metals - Trace Constituents																							
Aluminum (DIS)	mg/L		0.065 J	0.023	0.027	0.045	0.047			<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	0.026	<0.009	0.009	
Antimony (DIS)	mg/L	0.006	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
Arsenic (DIS)	mg/L	0.01	0.006	0.006	0.006	0.006	0.006			<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Barium (DIS)	mg/L	1	0.309	0.304	0.301	0.307	0.304			0.187	0.175	0.128	0.163	0.16	0.157	0.173	0.172	0.184	0.184	0.19	0.184	0.188	
Beryllium (DIS)	mg/L	0.004	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008			<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	
Cadmium (DIS)	mg/L	0.005	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003			<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	
Chromium (DIS)	mg/L	0.1	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Cobalt (DIS)	mg/L		<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Copper (DIS)	mg/L	1.3	<0.002	<0.002	<0.002	<0.002	<0.002			<0.002	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
Iron (DIS)	mg/L		0.03	<0.02	<0.02	<0.02	0.03			<0.02	<0.02	0.05	0.78	0.07	<0.02	0.29	<0.02	0.02	0.02	0.06	0.03 B	0.1	
Lead (DIS)	mg/L	0.015	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003			<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.0004	<0.0003	<0.0003	
Manganese (DIS)	mg/L		<0.005	<0.005	<0.005	<0.005	<0.005			<0.005	<0.005	<0.005	0.149	0.017	<0.005	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	
Mercury (DIS)	ug/L		<0.005	<0.005	<0.005	<0.005	<0.005			<0.005	<0.005	0.018	0.023	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
Molybdenum (DIS)	mg/L		<0.002	<0.002	<0.002	<0.002	<0.002			<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
Nickel (DIS)	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Selenium (DIS)	mg/L	0.05	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002			0.0002	0.0003	<0.0002	0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0004	
Silver (DIS)	mg/L	0.1	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Strontium (DIS)	mg/L	4	0.0951	0.102	0.102	0.109	0.108			0.115	0.107	0.081	0.112	0.103	0.0968	0.101	0.104	0.116	0.115	0.115	0.113	0.115	
Thallium (DIS)	mg/L	0.002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Uranium (DIS)	mg/L	0.03	0.0004	0.0003	0.0003	0.0004	0.0003			0.0006	0.0006	0.0003	0.0006	0.0006	0.0006	0.0006	0.0005	0.0006	0.0006	0.0006	0.0007	0.0007	
Zinc (DIS)	mg/L	2	<0.002	<0.002	<0.002	<0.002	0.006			<0.002	<0.002	0.005	0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.003	

Definitions:

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U = Field Blank sample exceeded QA/QC comparison control l
H = Holding time exceeded QA/QC comparison control limit
D = Reporting limit increased due to sample matrix interference
L = The lowest available reporting limit was used per method u
NM = Not measured
NF-ICE = Not flowing; ice on ground
NM-ICE = Not measured; ice prohibitive
NF-DRY = Not flowing; Dry ground

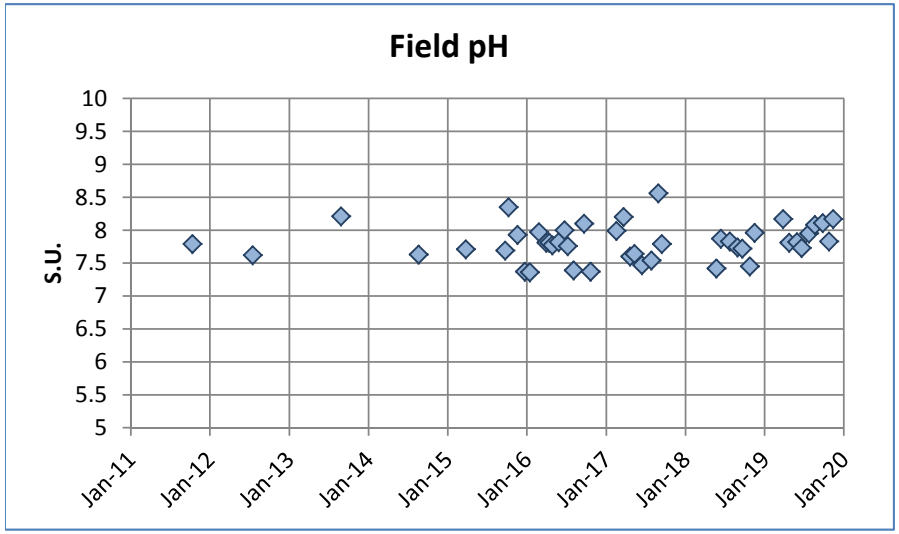
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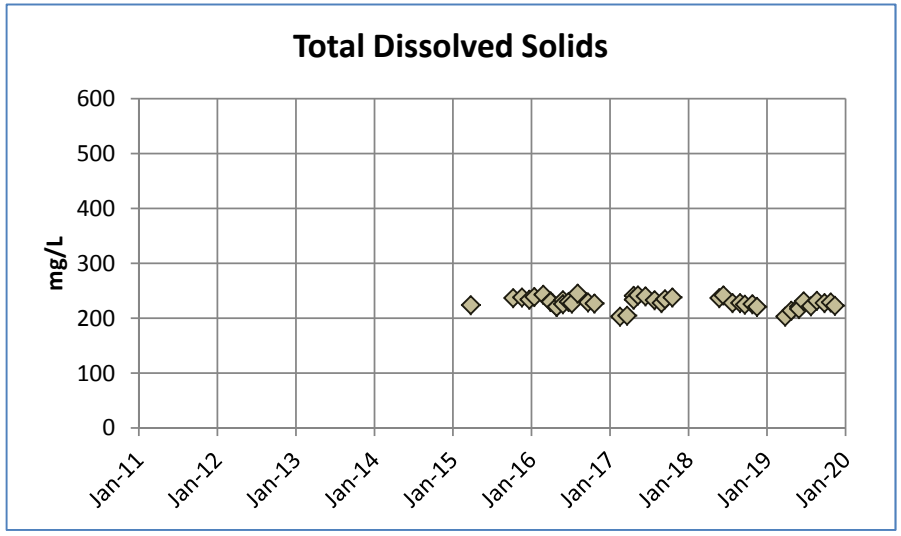
Human Health Standard Groundwate

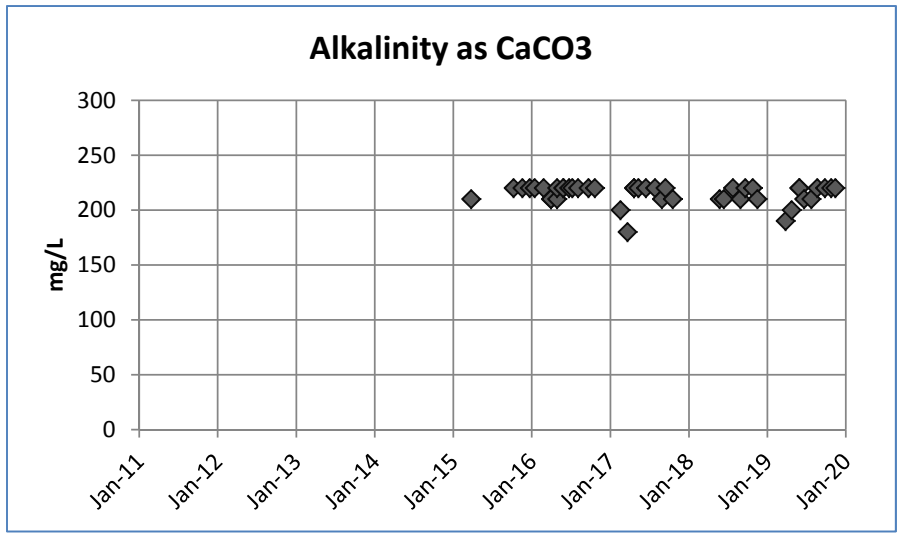
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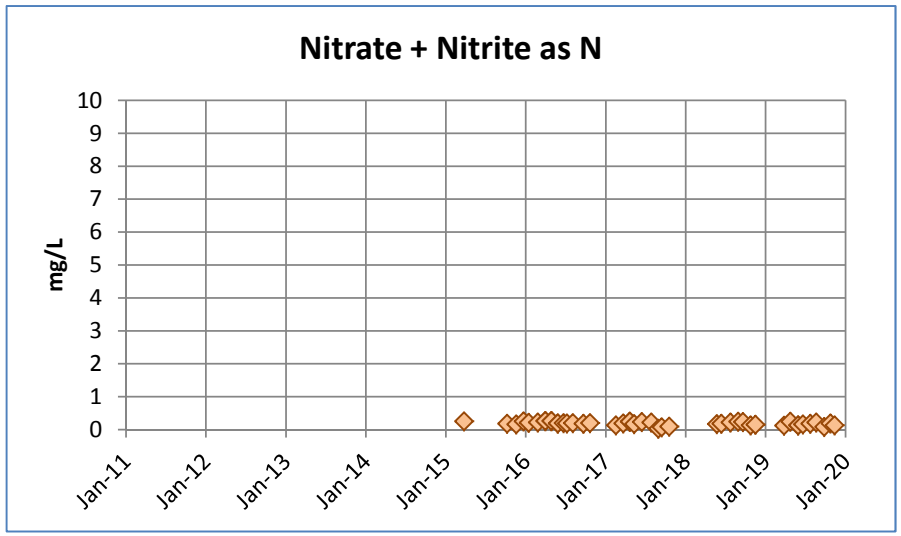
Montana DEQ7 May 2017
Montana DEQ7 June 2019

DS-1





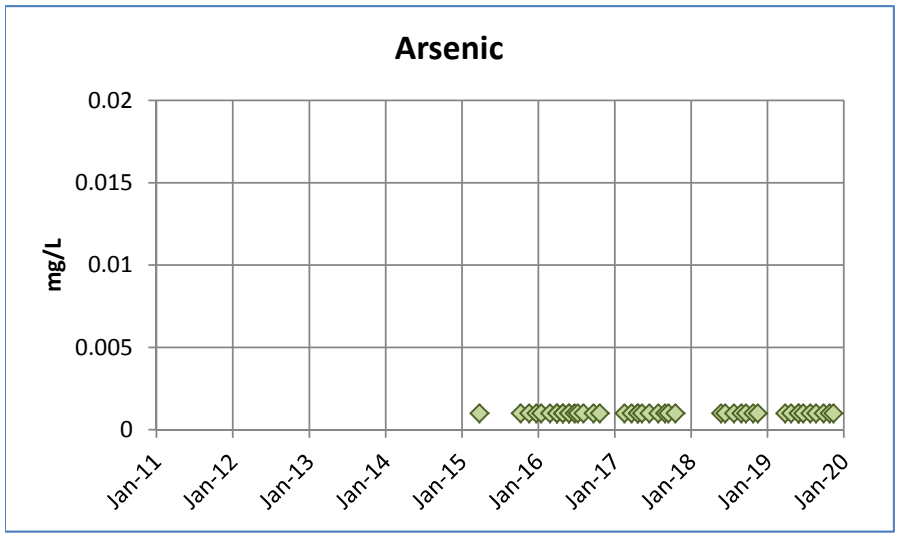


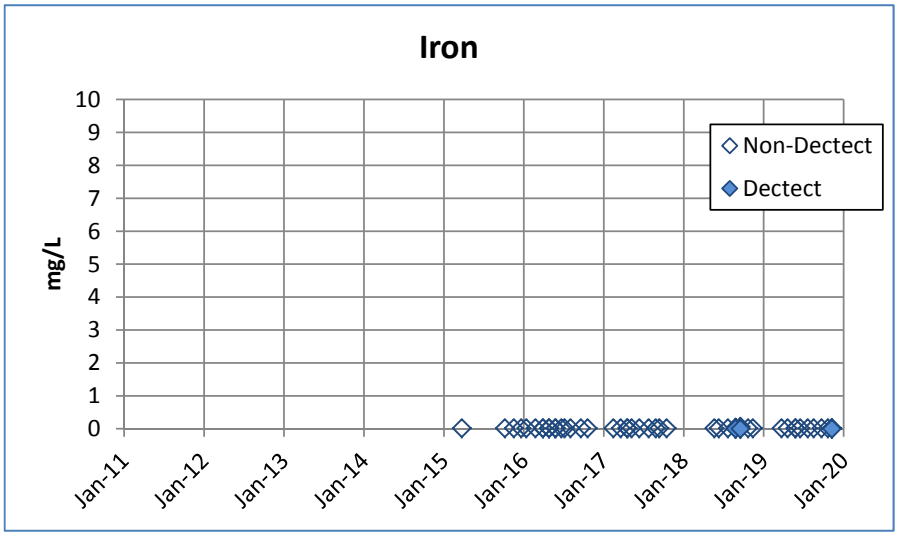


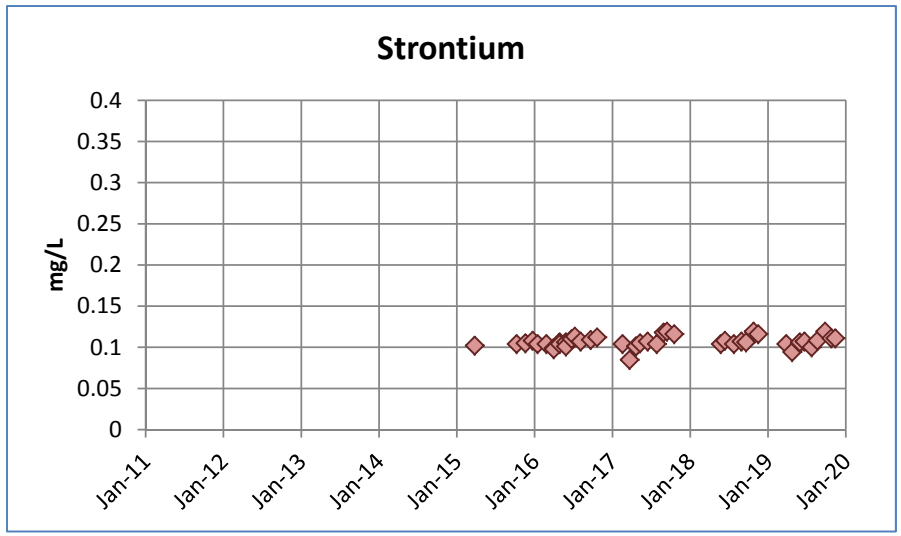
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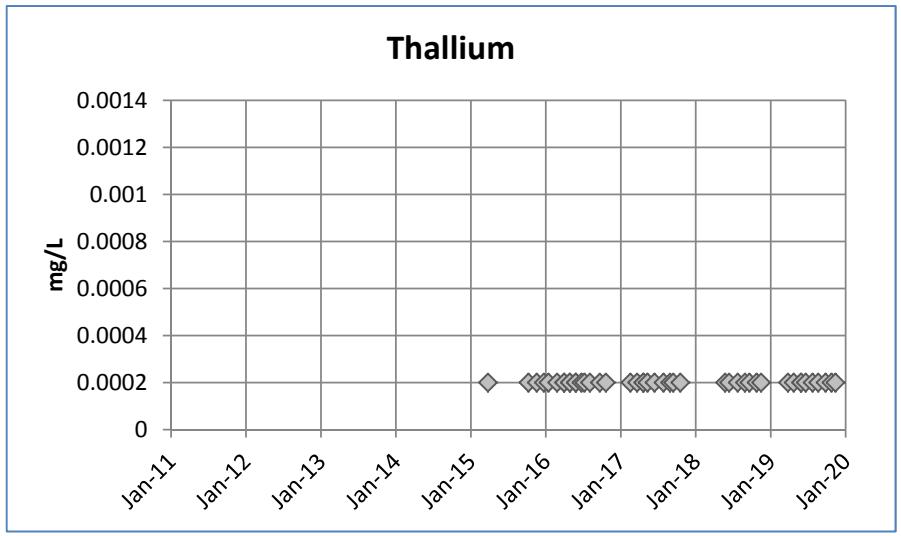
DS-1 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

DS-1





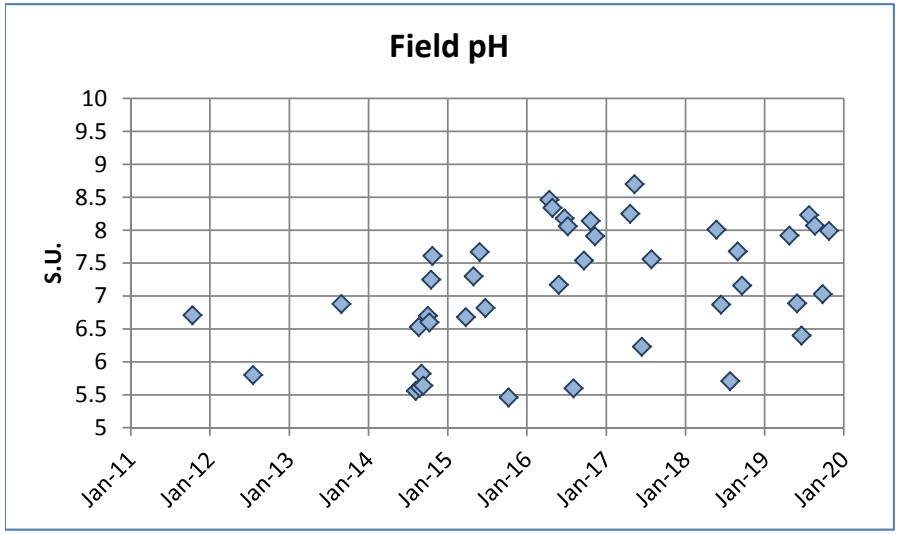


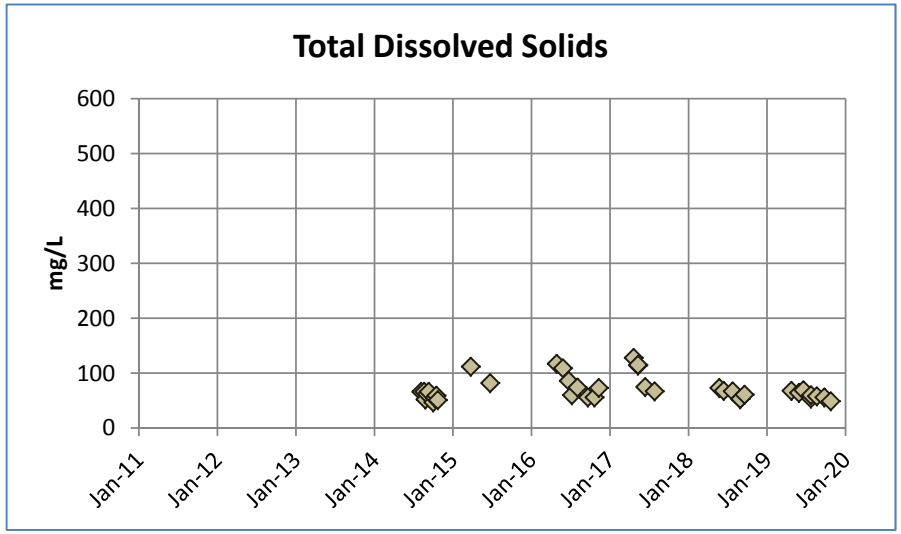


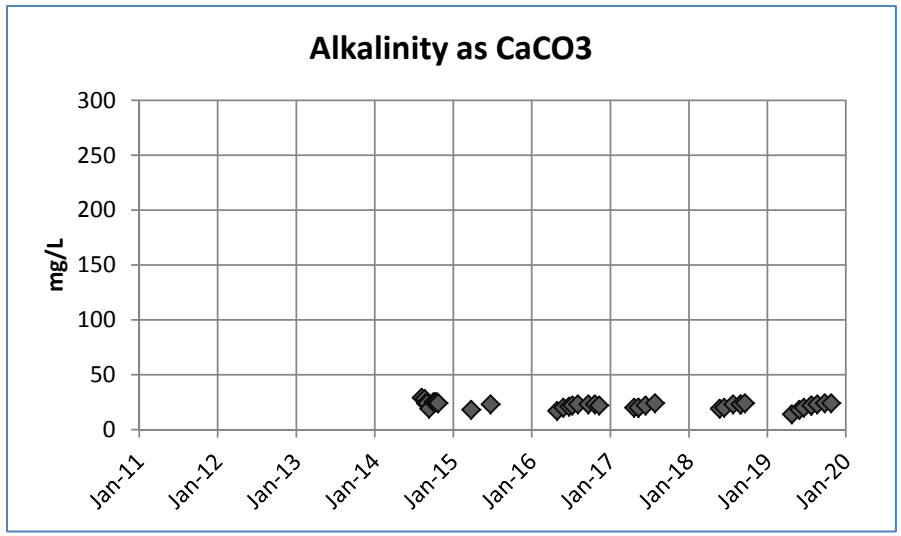
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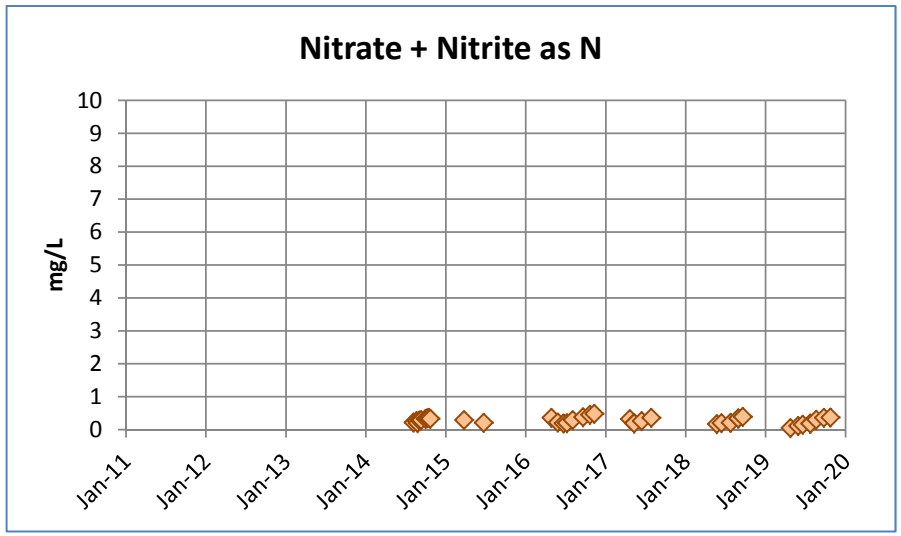
DS-1 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

DS-3





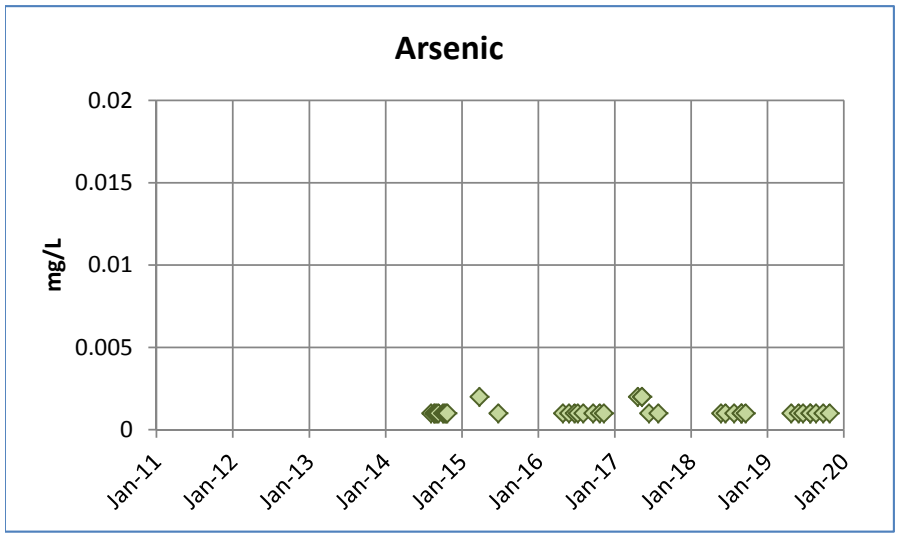


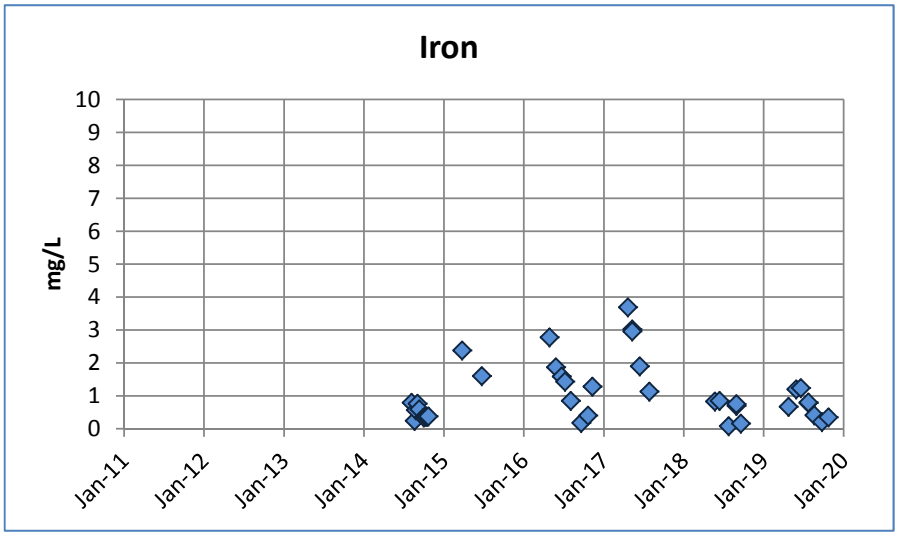


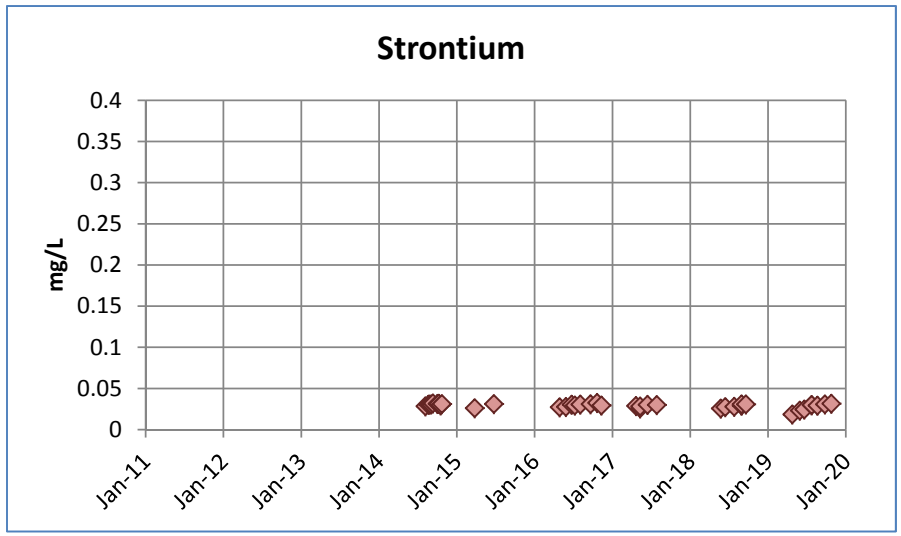
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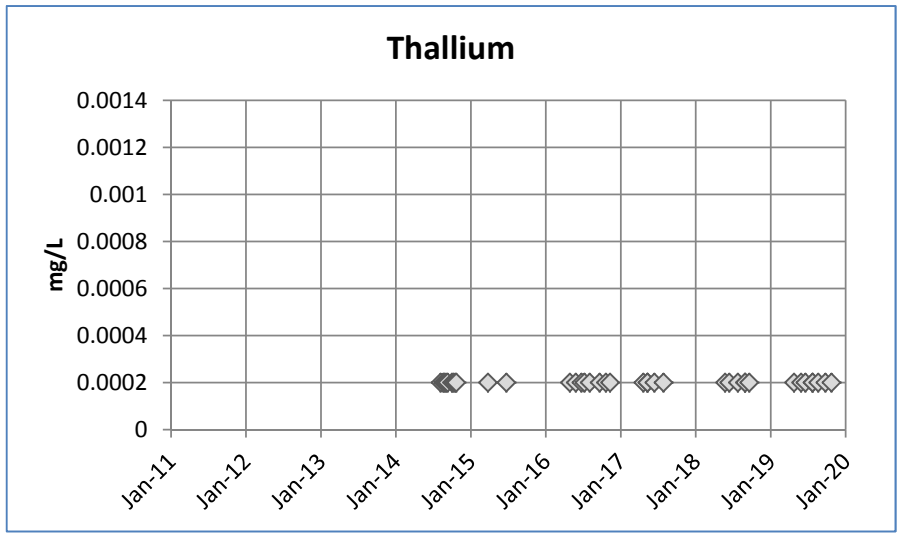
DS-3 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

DS-3





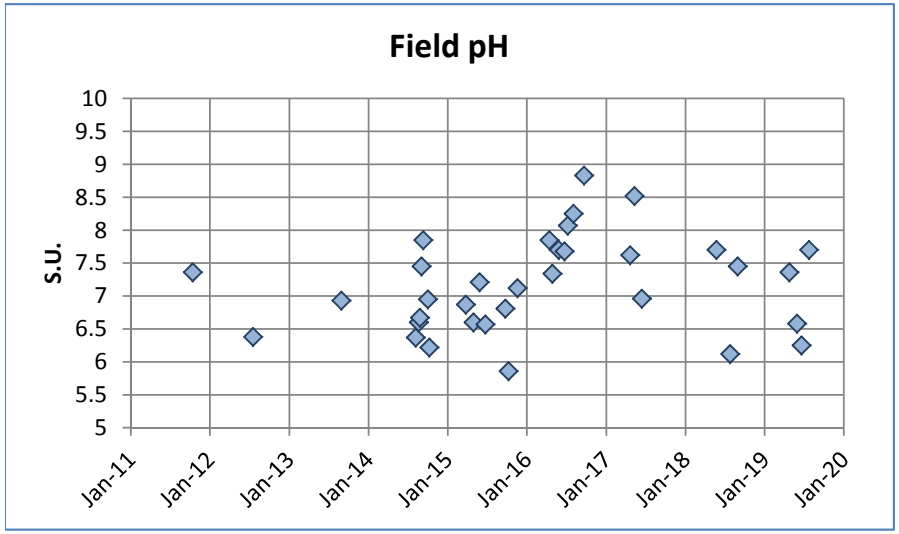


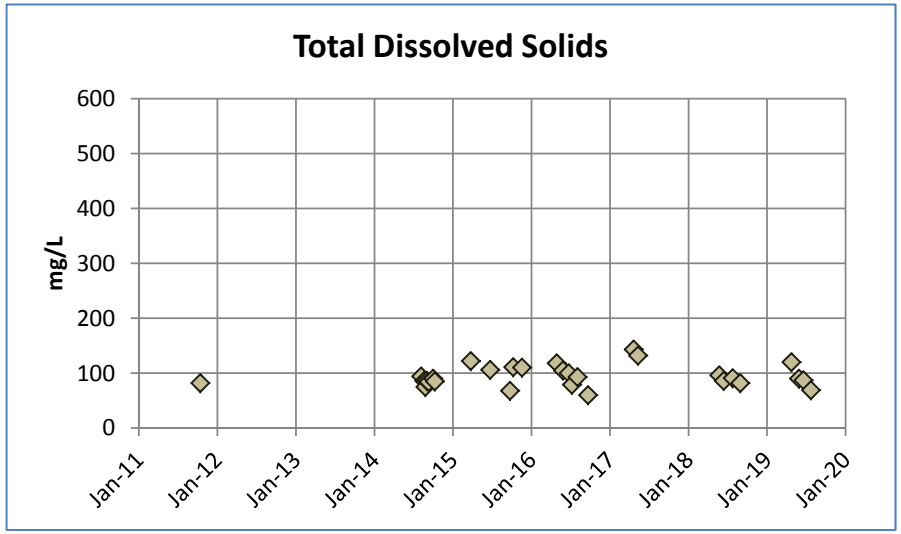


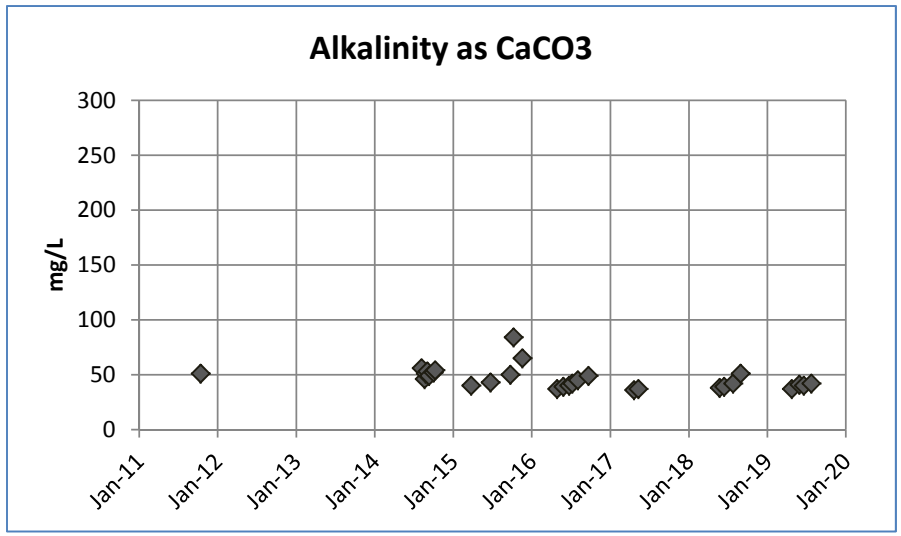
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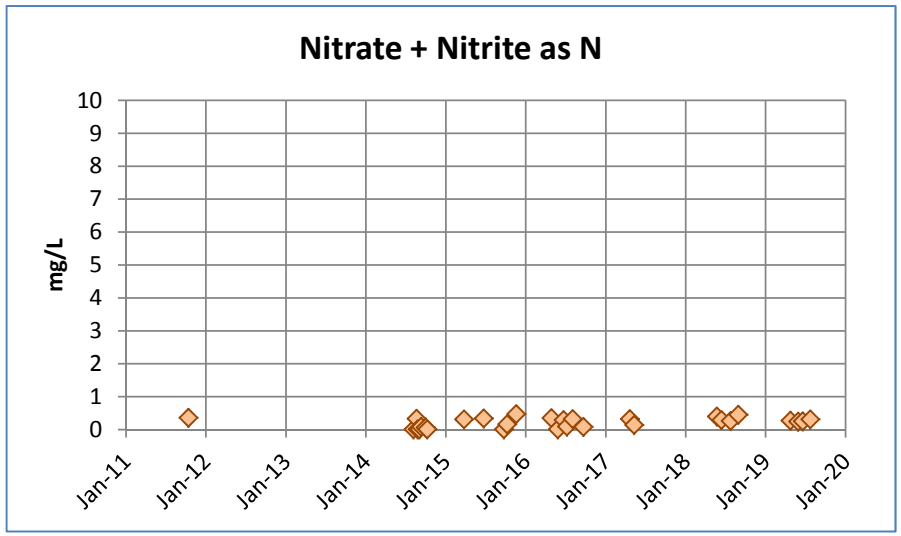
DS-3 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

DS-4





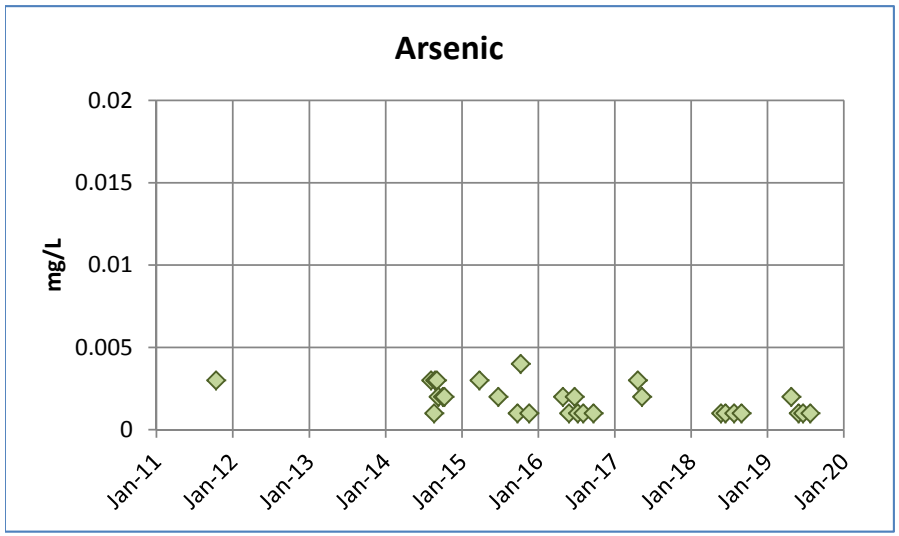


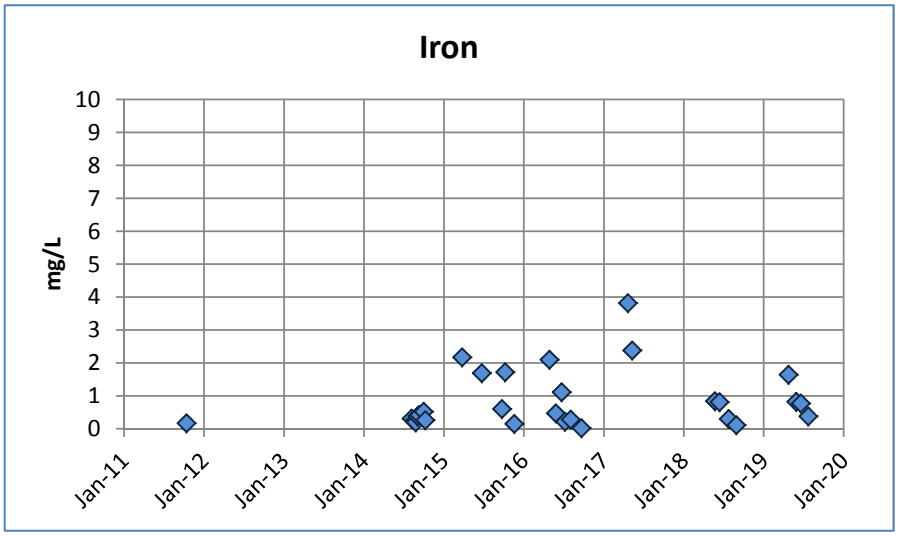


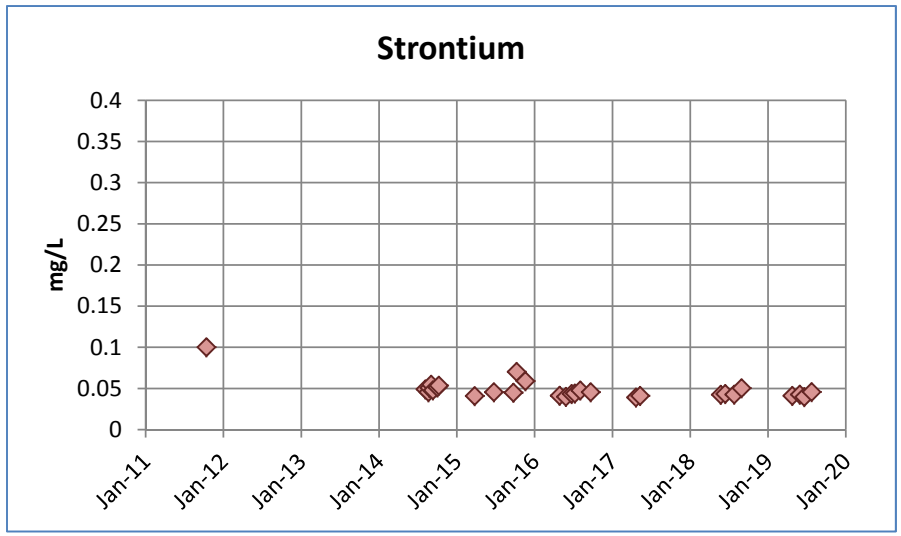
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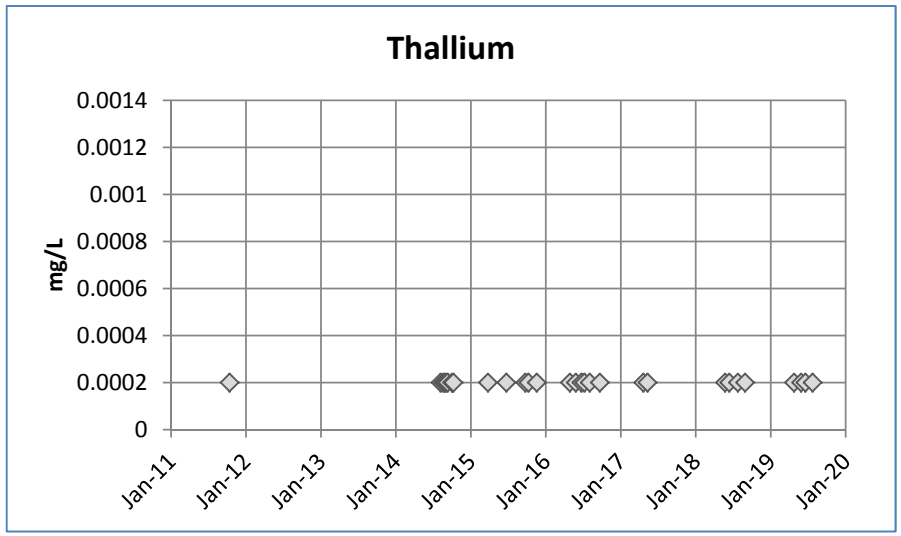
DS-4 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

DS-4





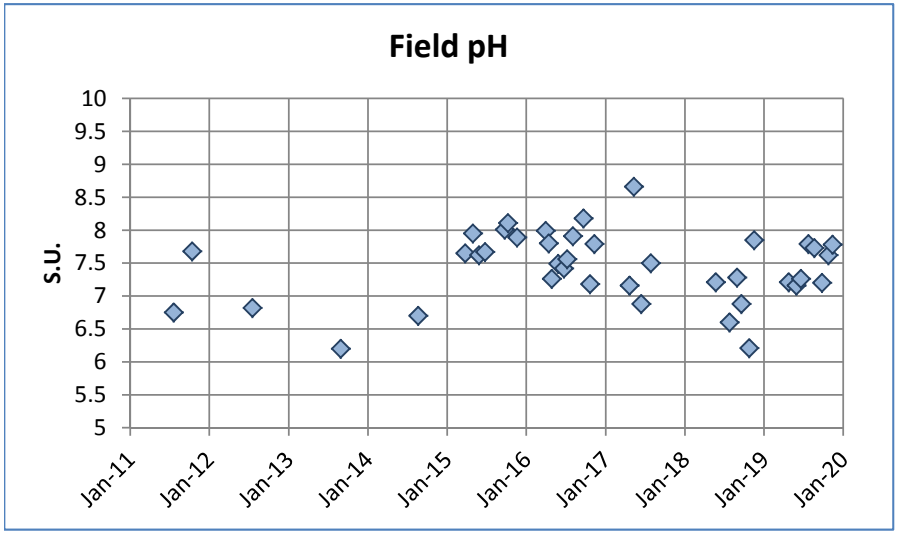


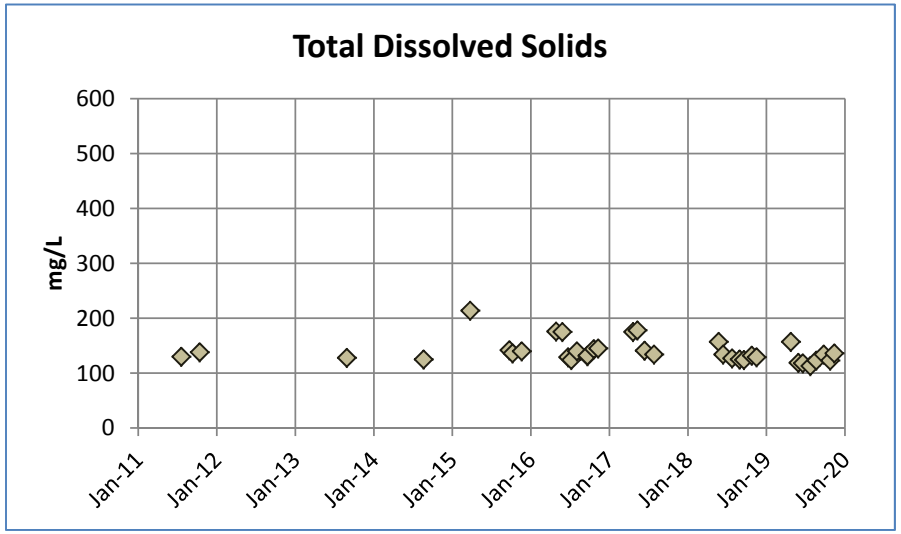


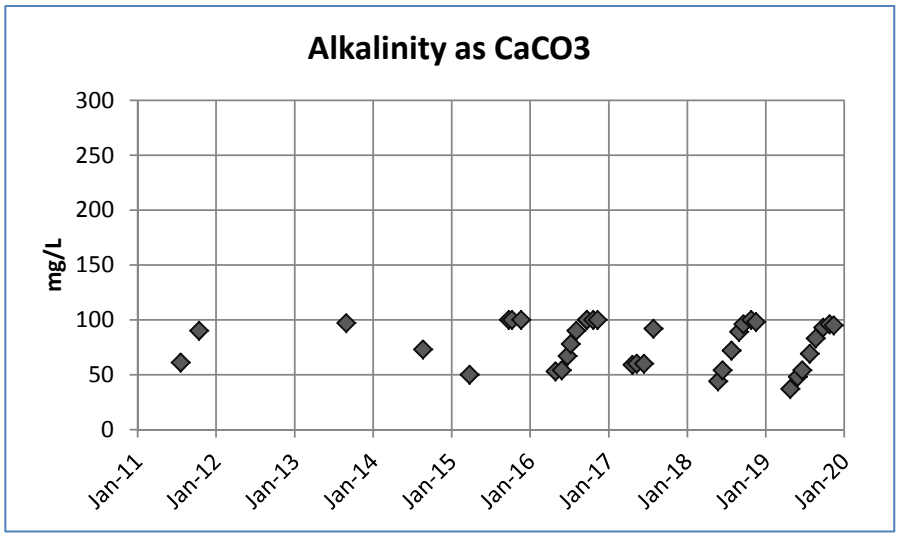
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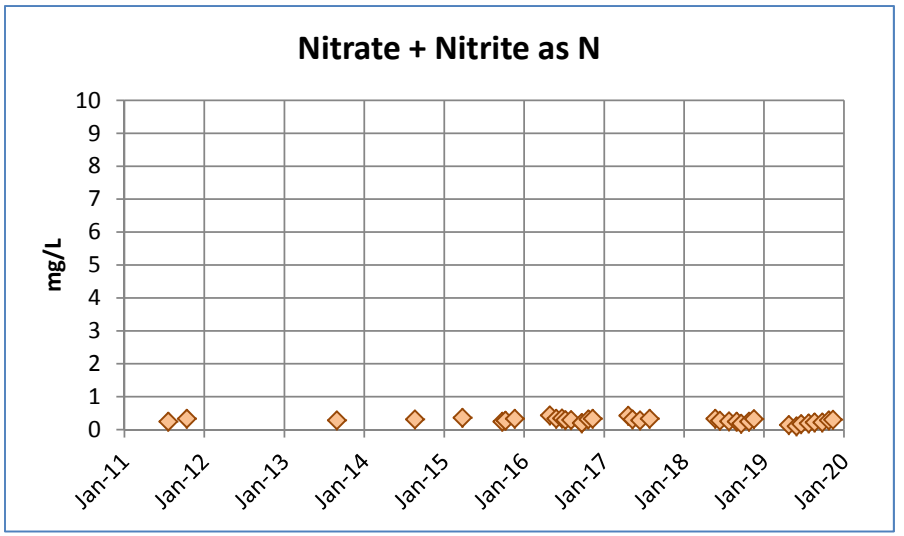
DS-4 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SP-3





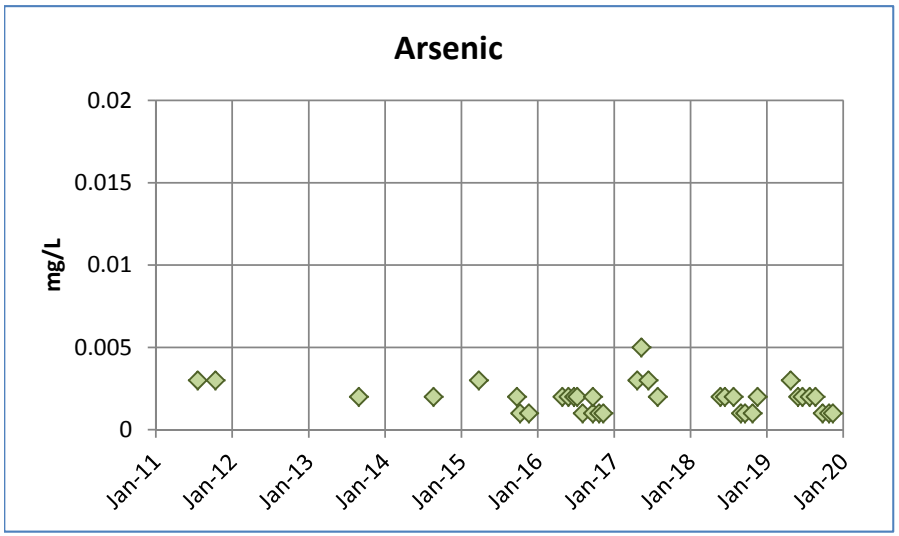


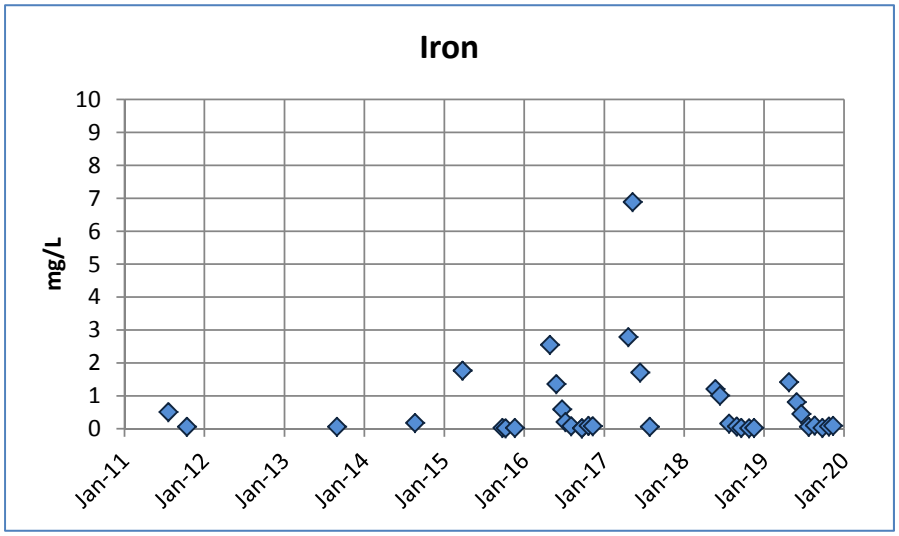


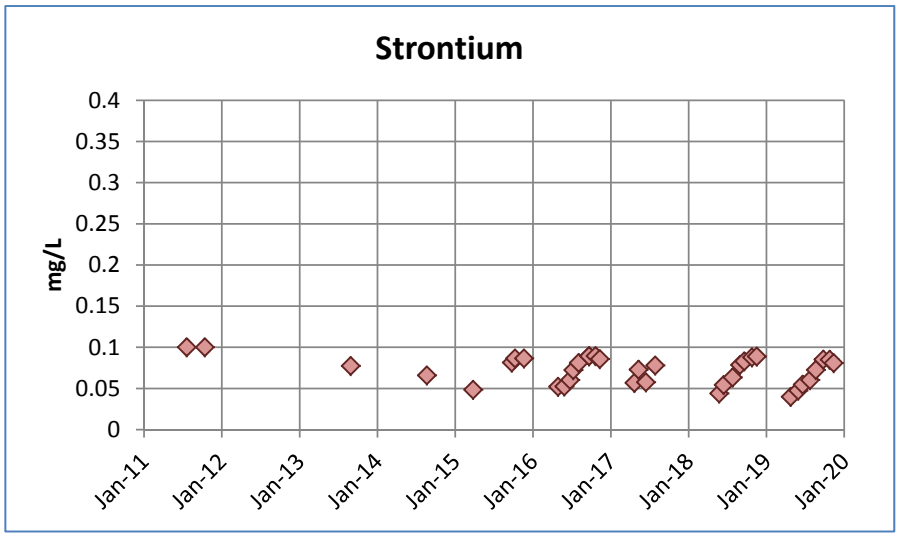
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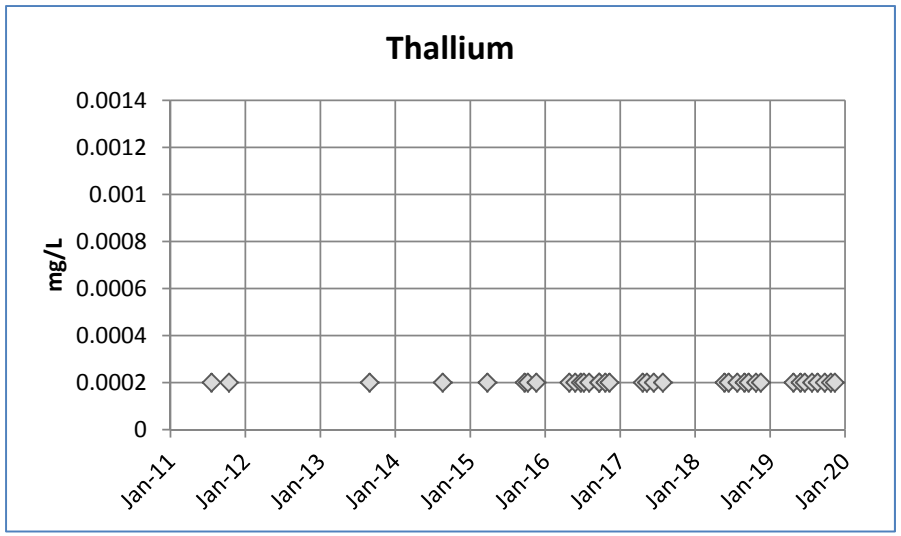
SP-3 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SP-3





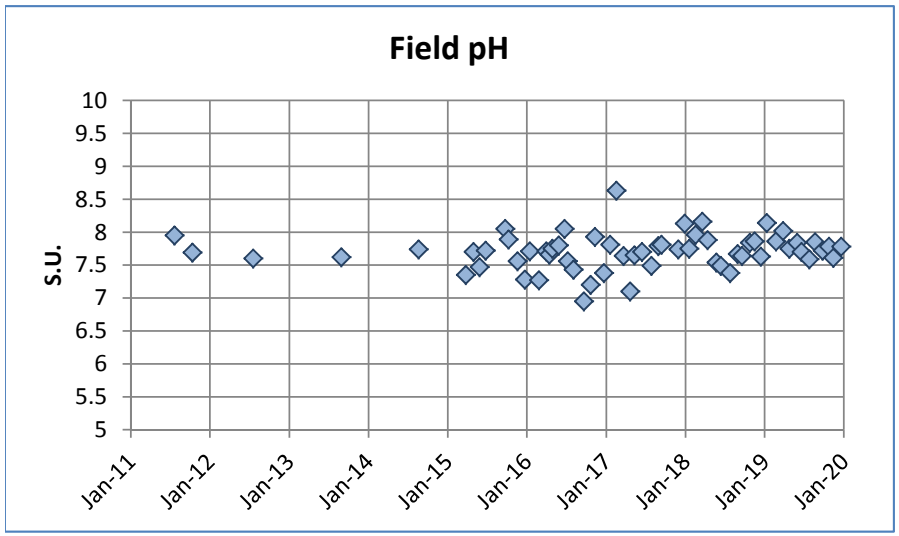


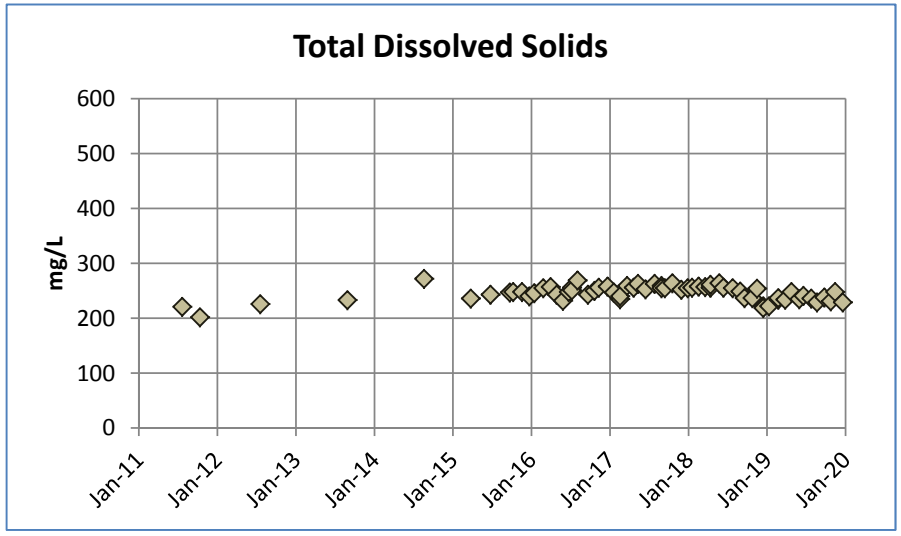


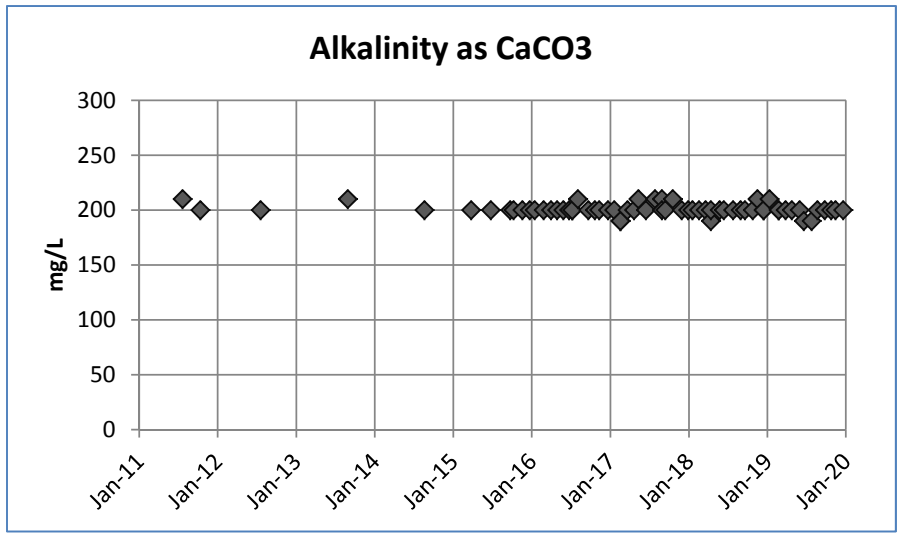
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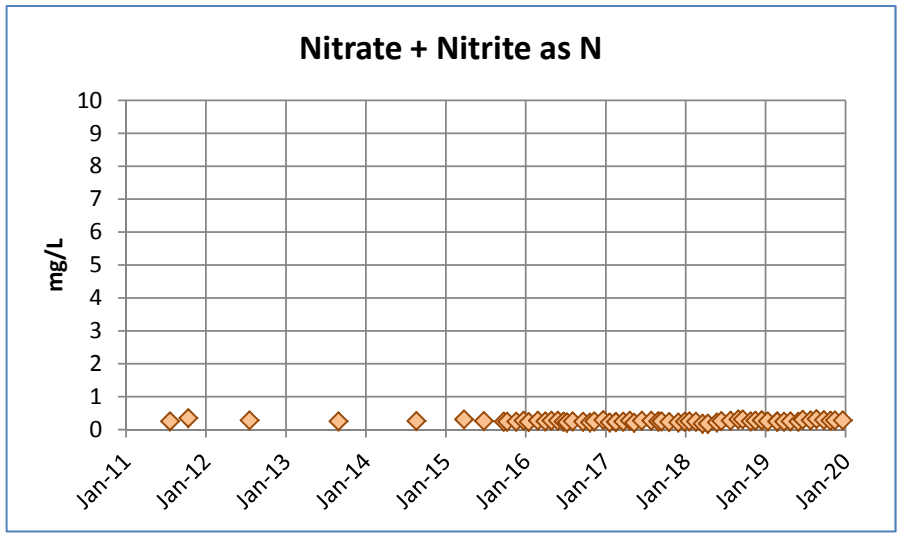
SP-3 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SP-4





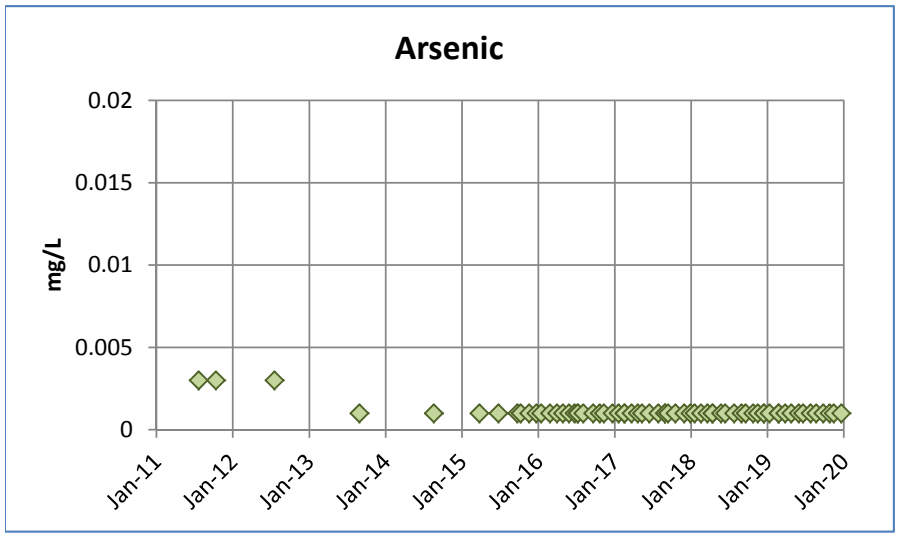


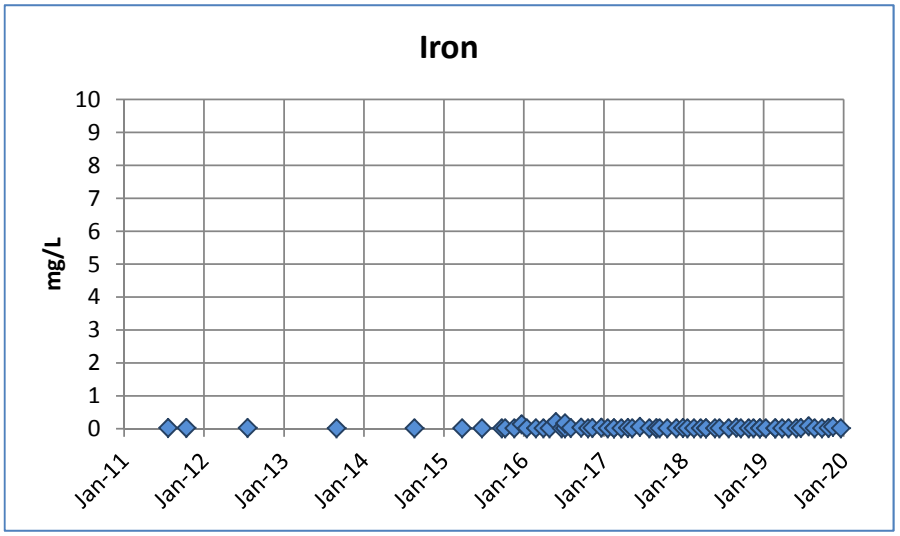


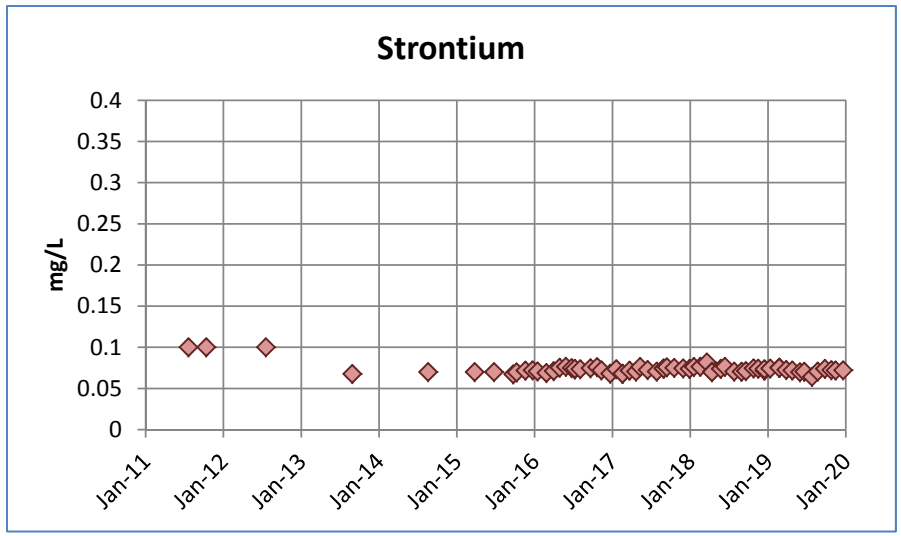
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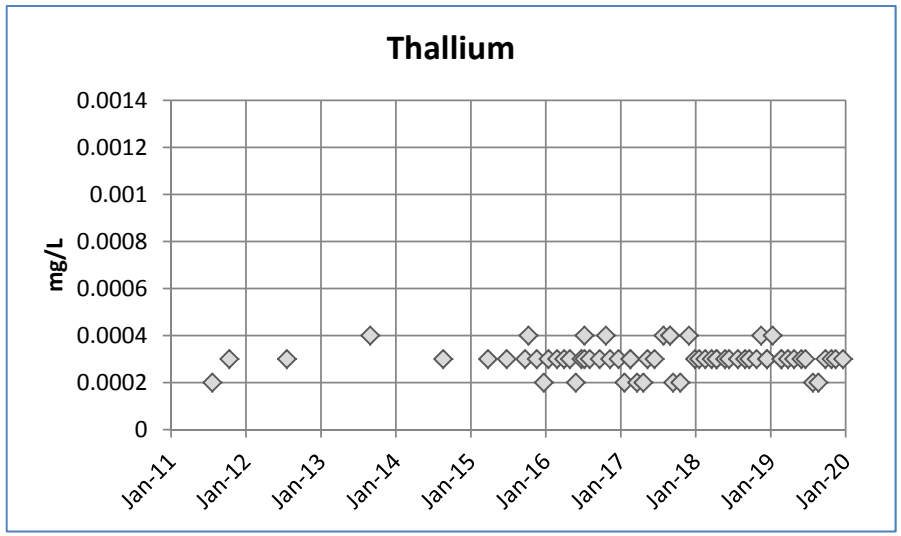
SP-4 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SP-4





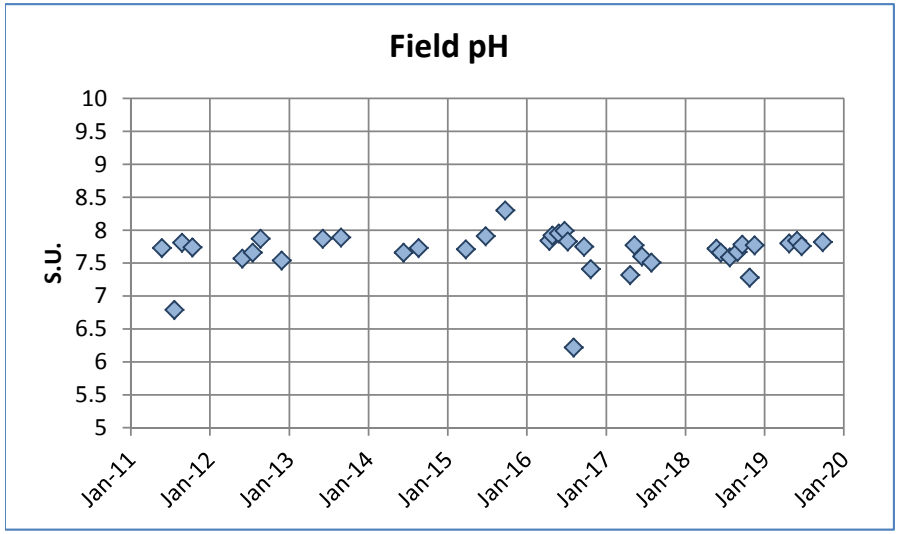


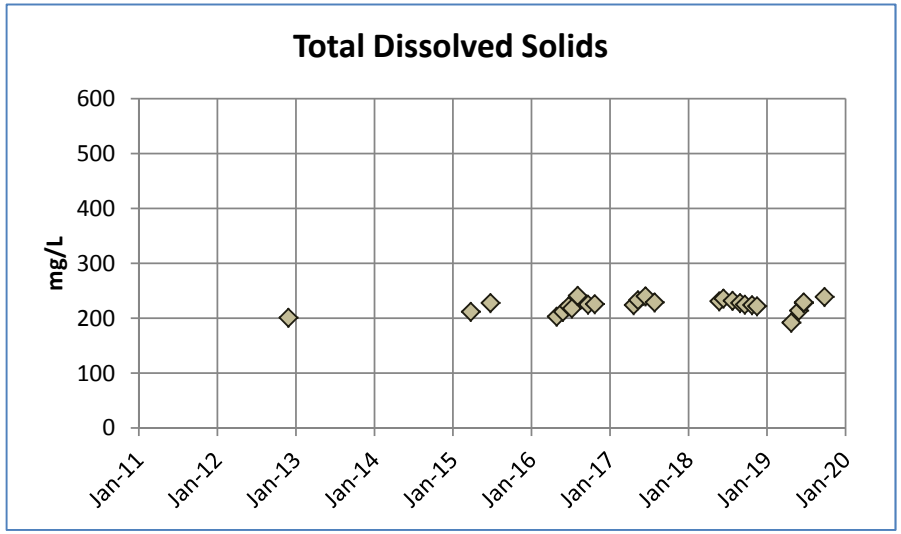


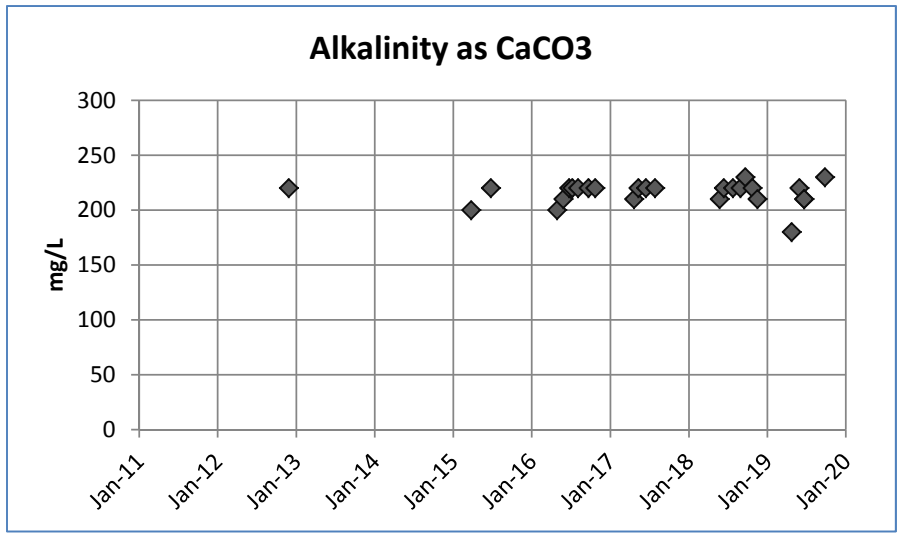
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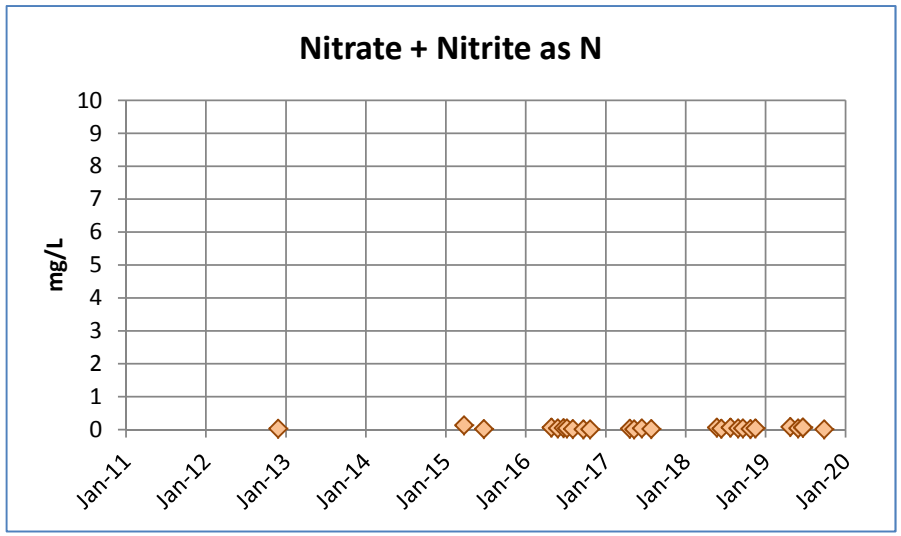
SP-4 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SP-5(SW-7)





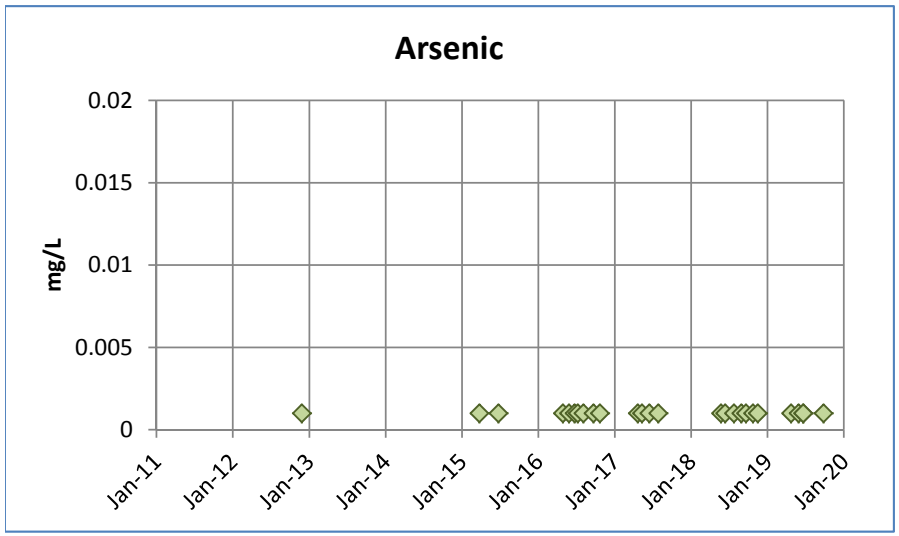


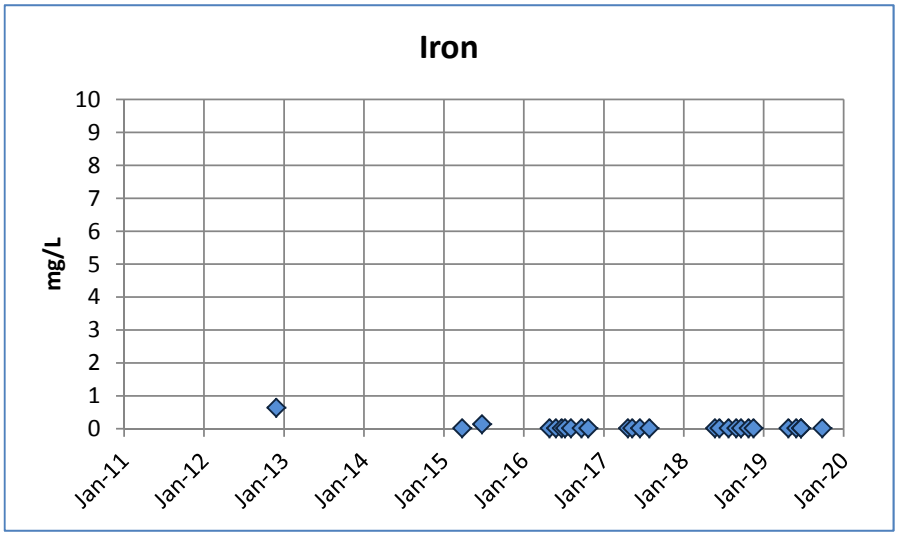


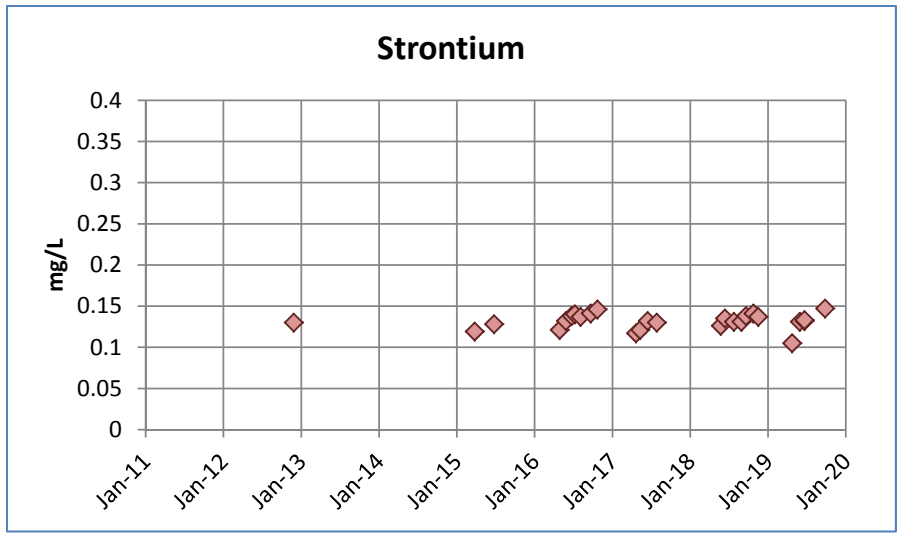
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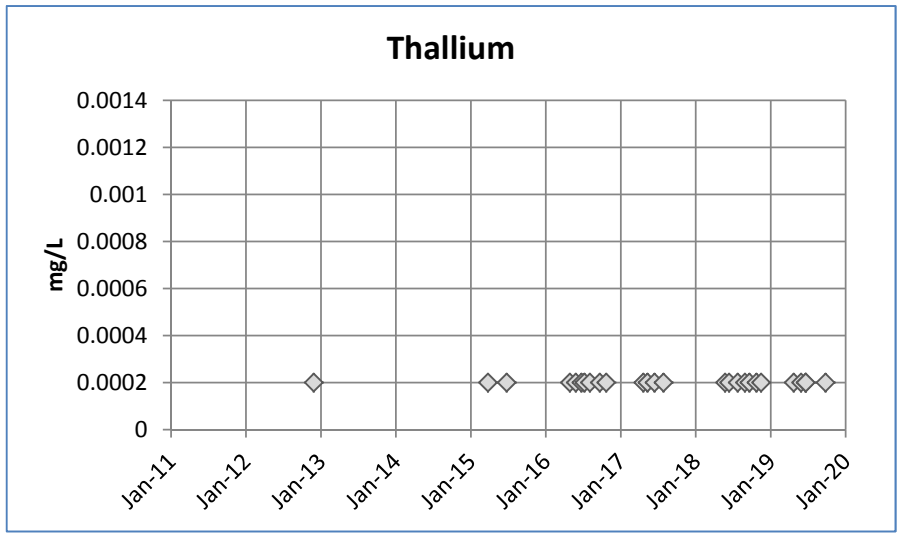
SP-5(SW-7) Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SP-5(SW-7)





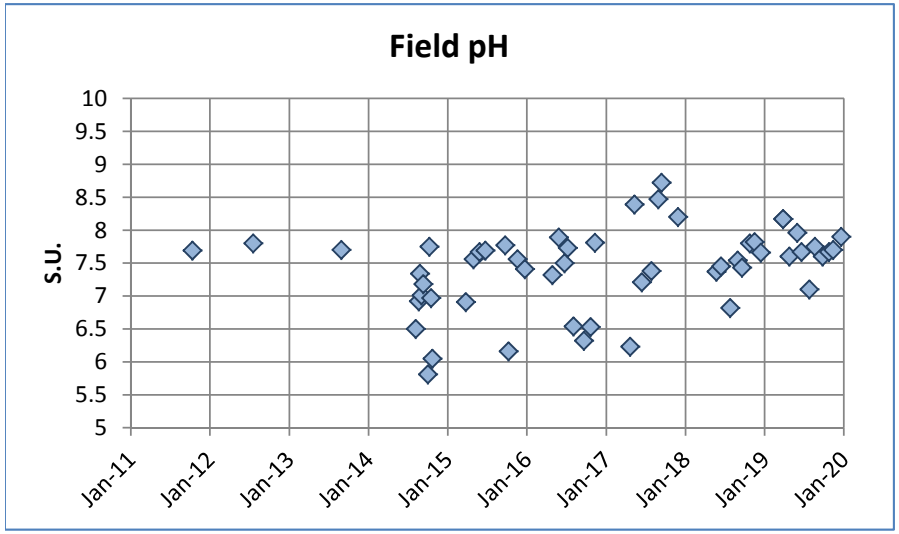


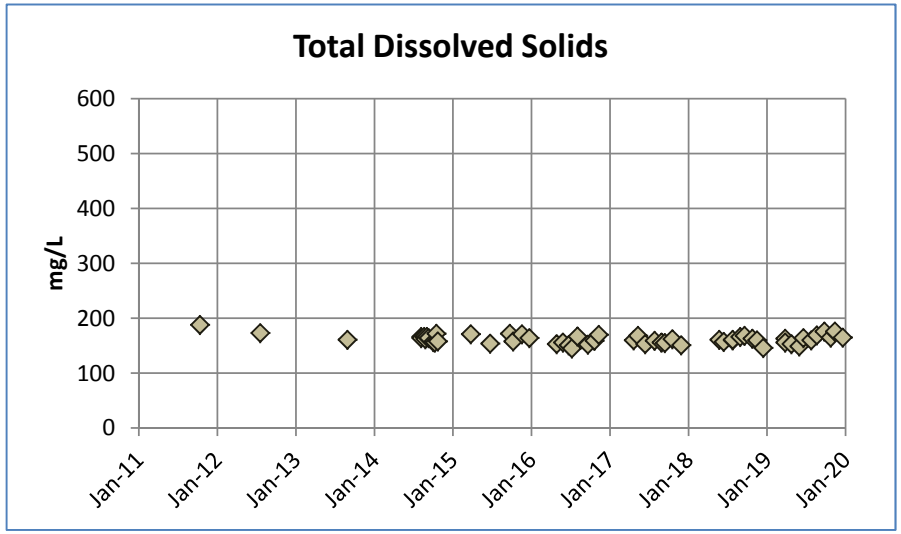


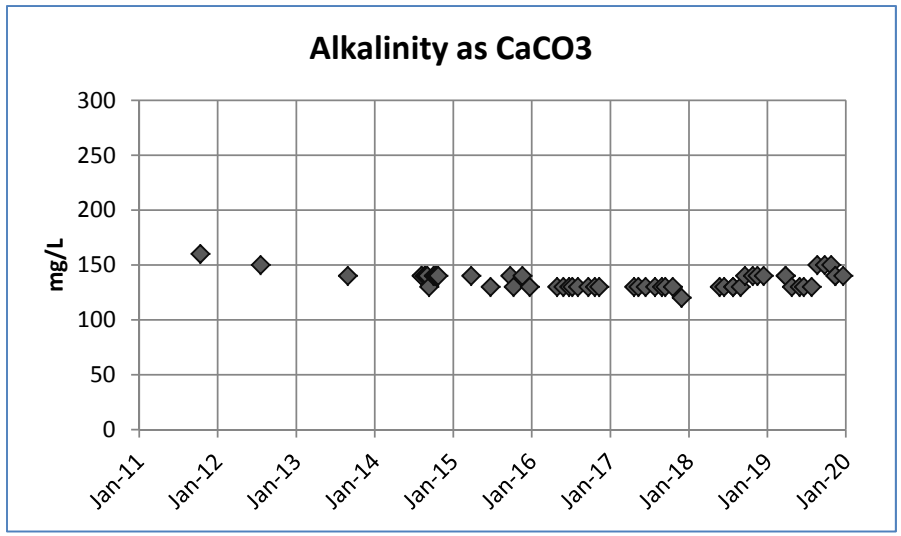
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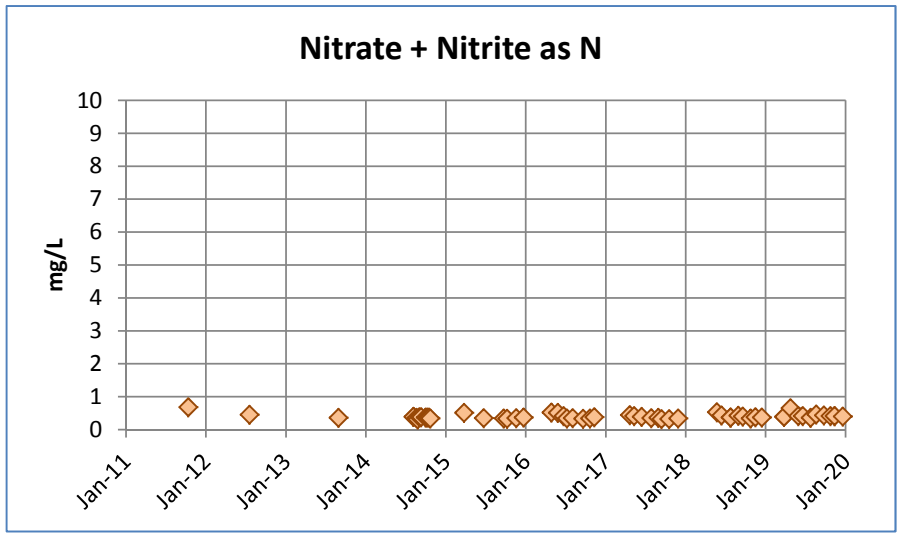
SP-5(SW-7) Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SP-6





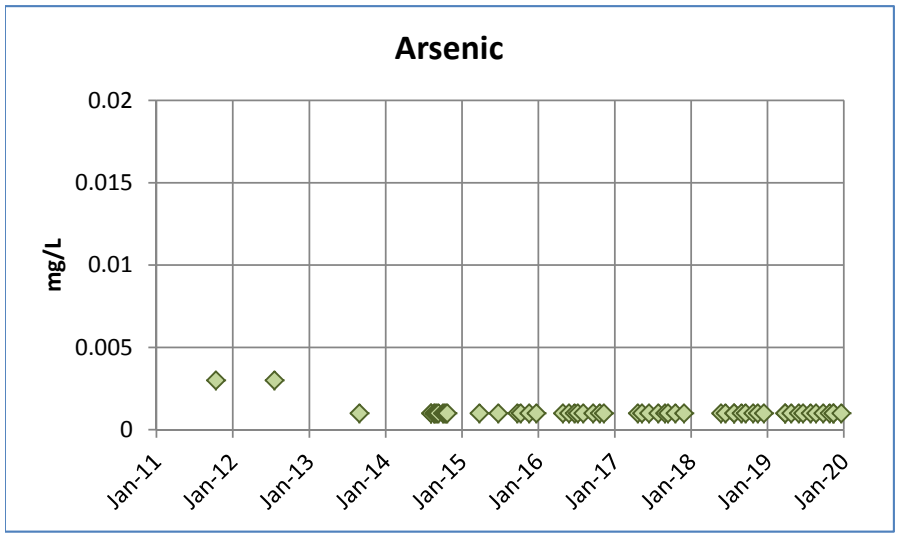


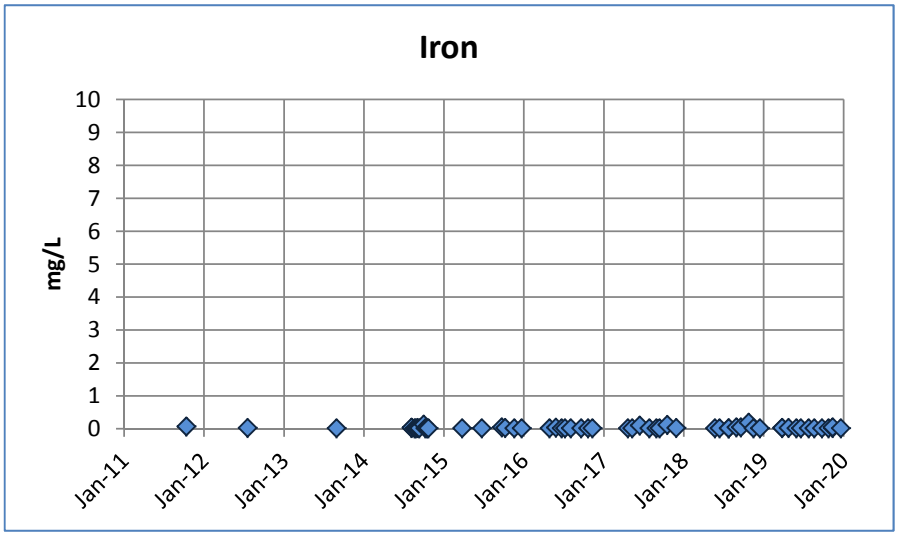


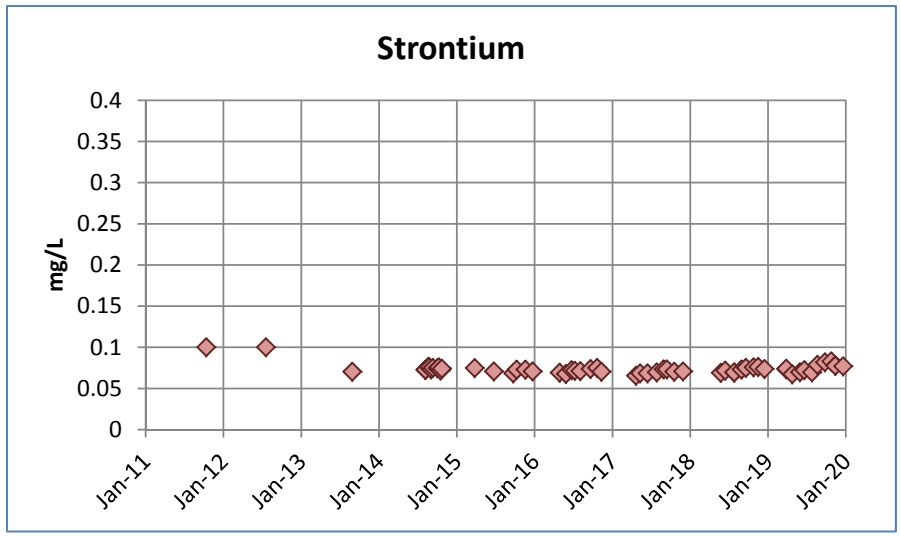
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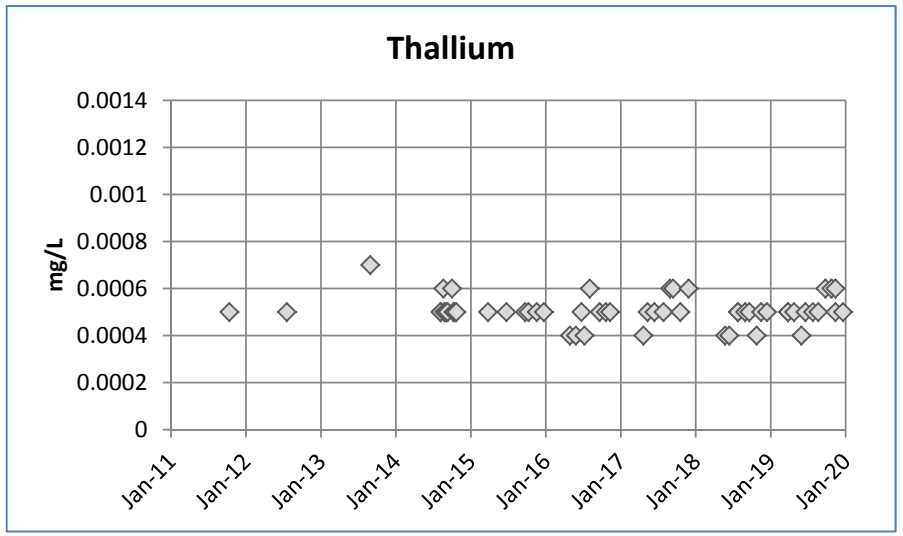
SP-6 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SP-6





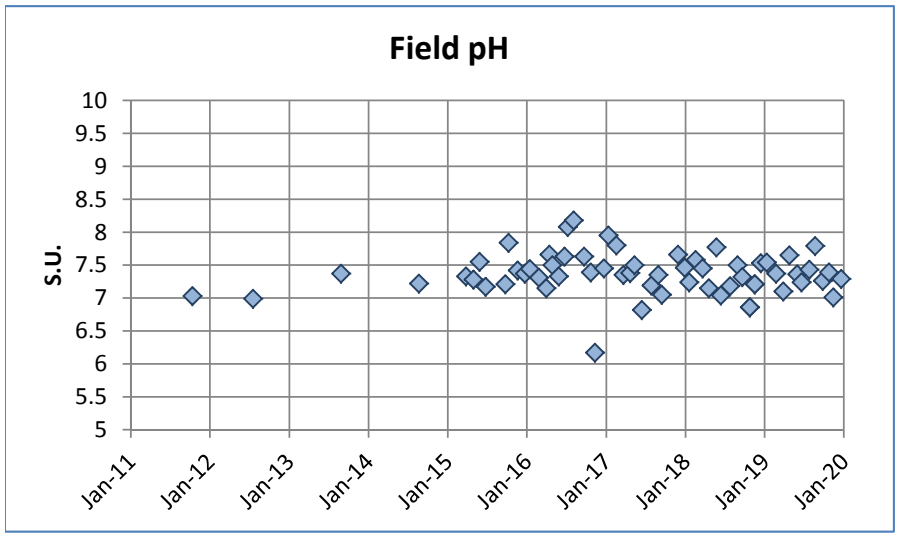


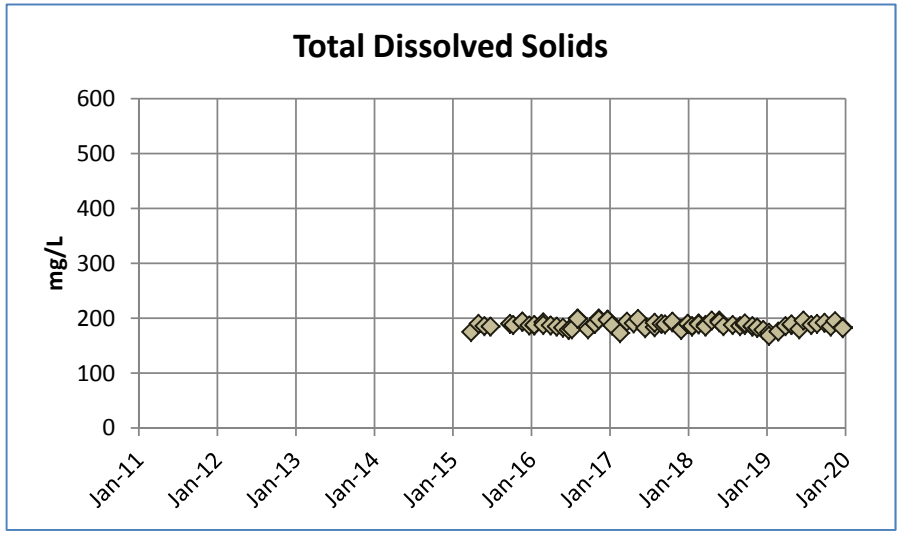


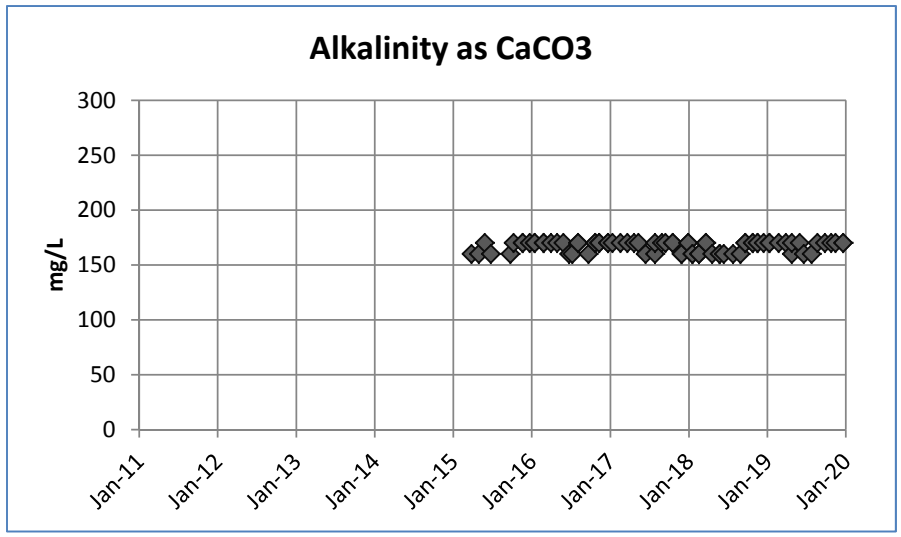
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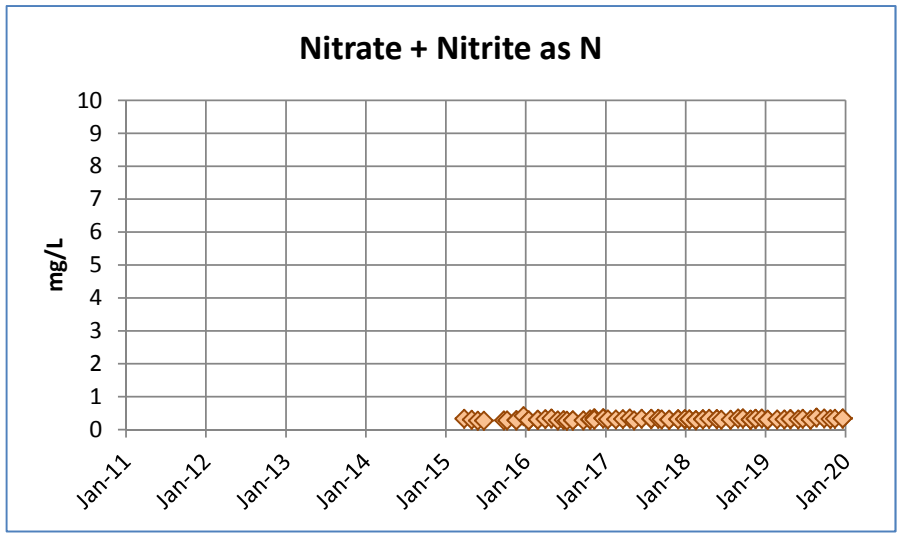
SP-6 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

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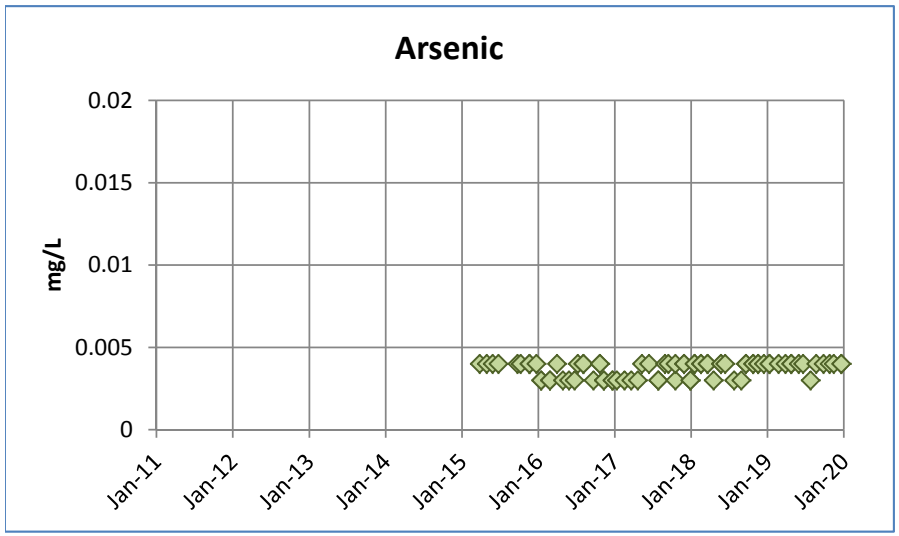


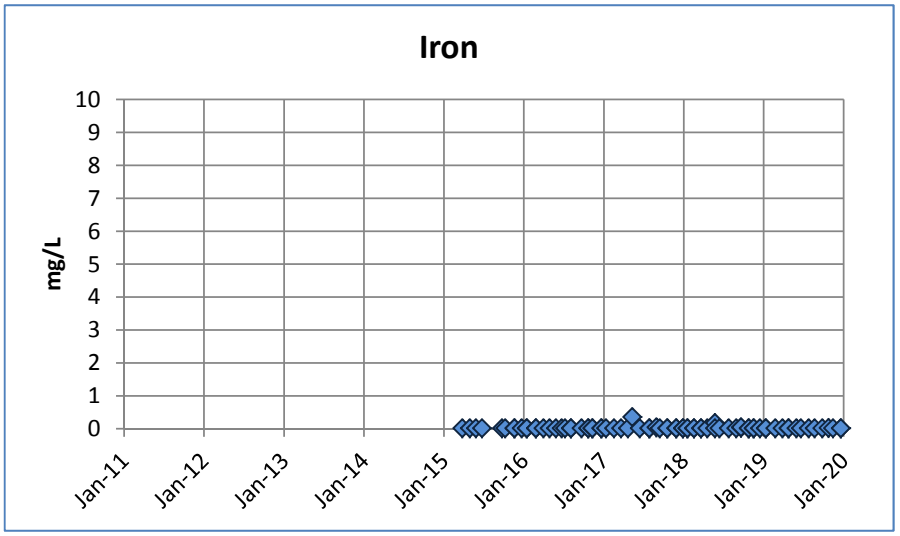


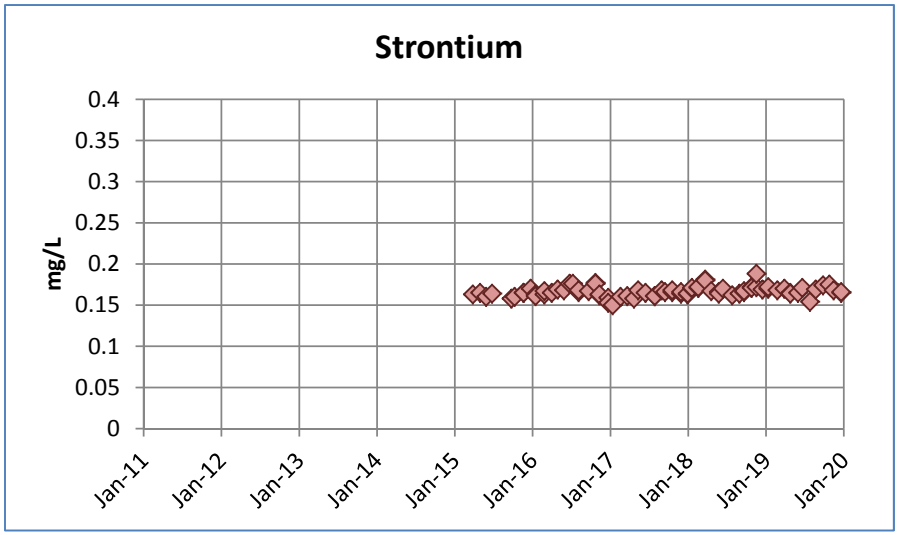
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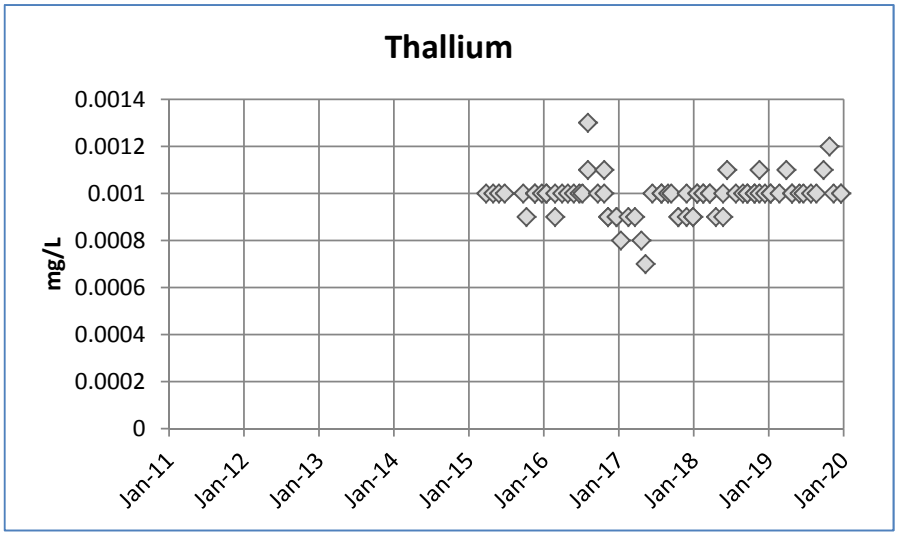
SP-7 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

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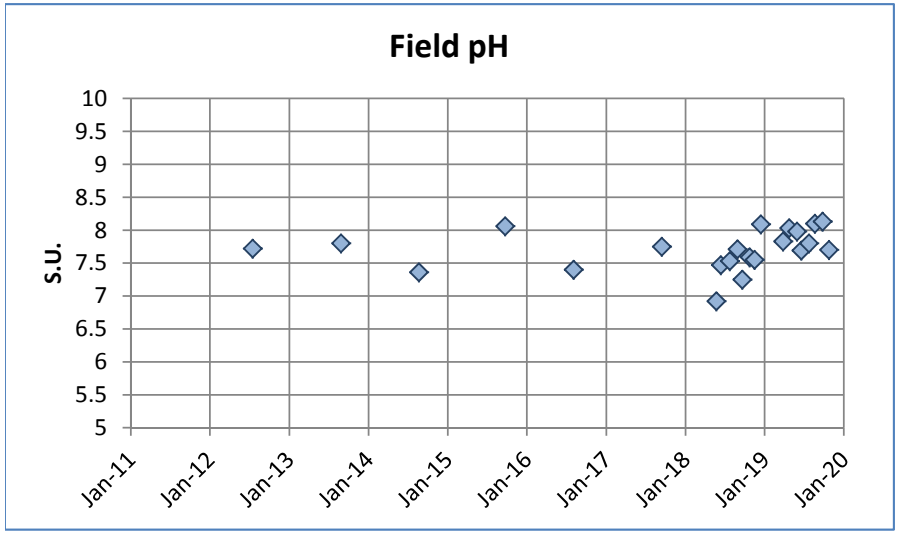


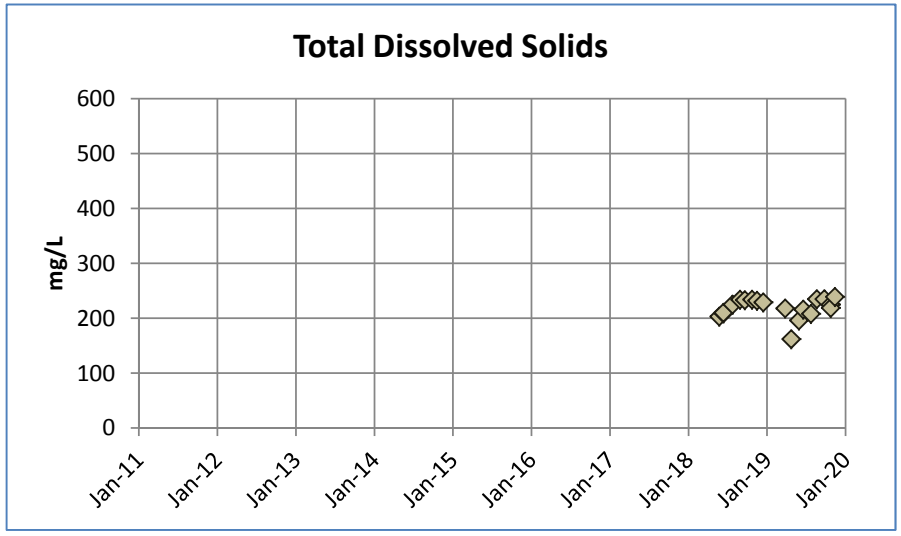


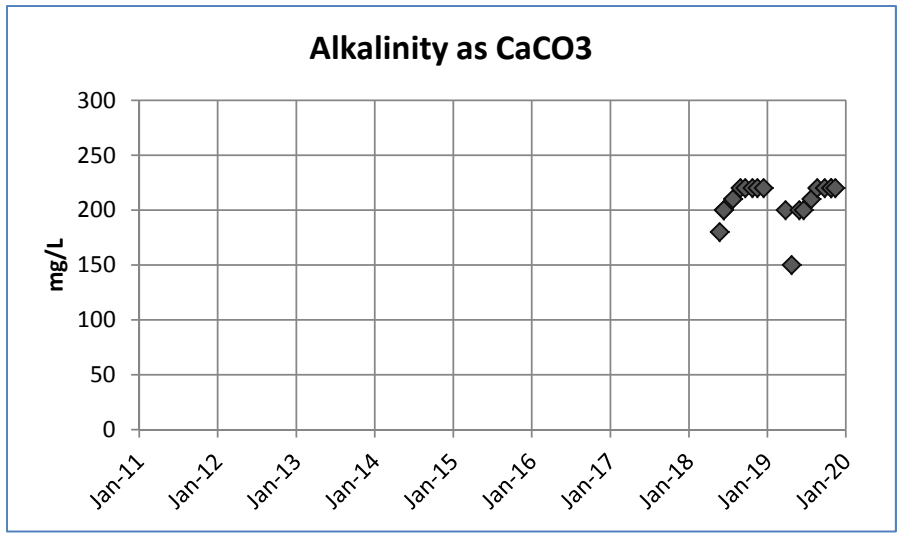
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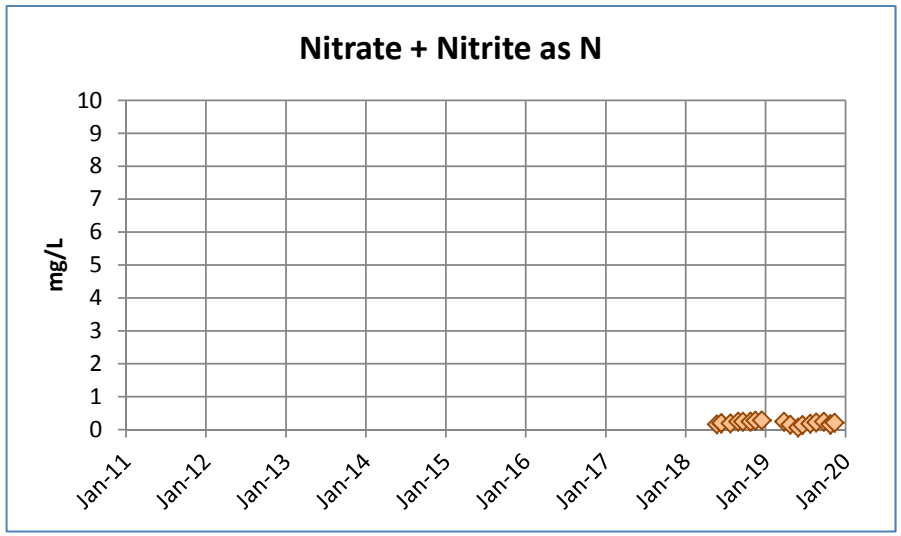
SP-7 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SP-10





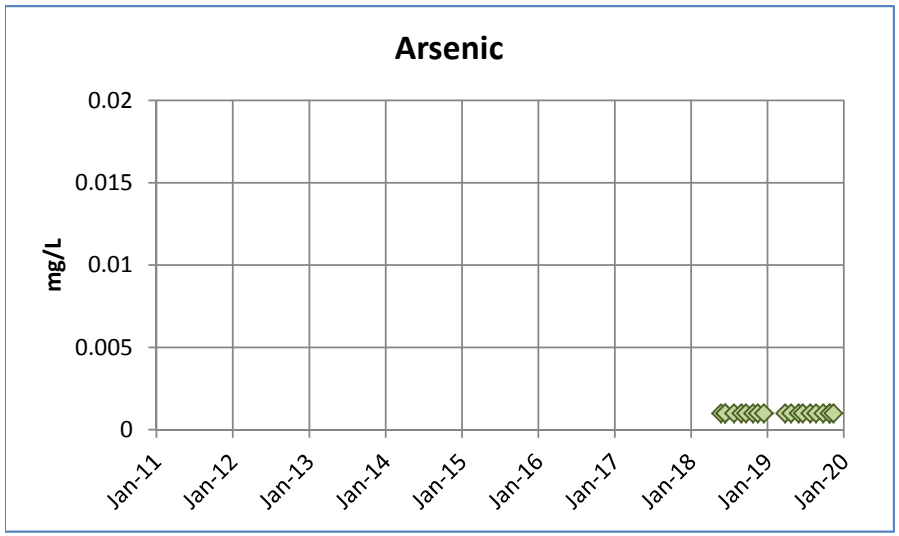


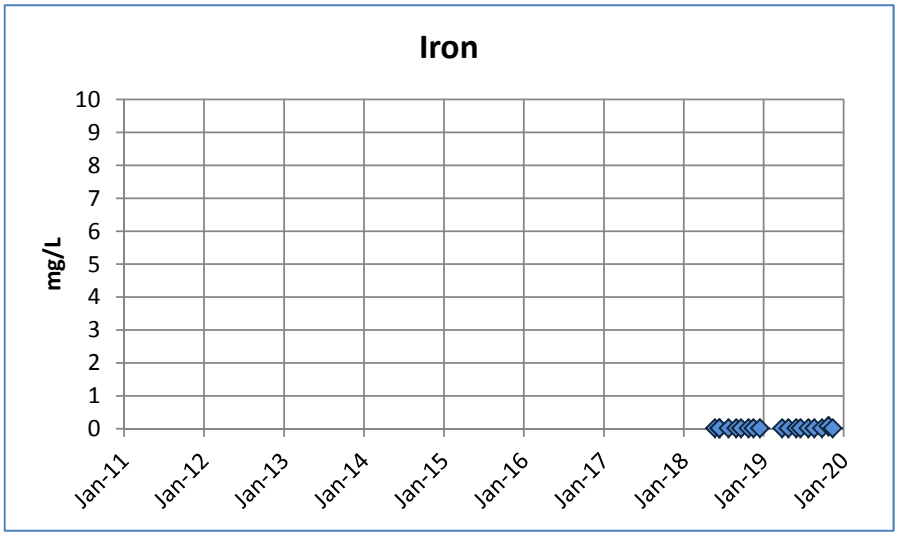


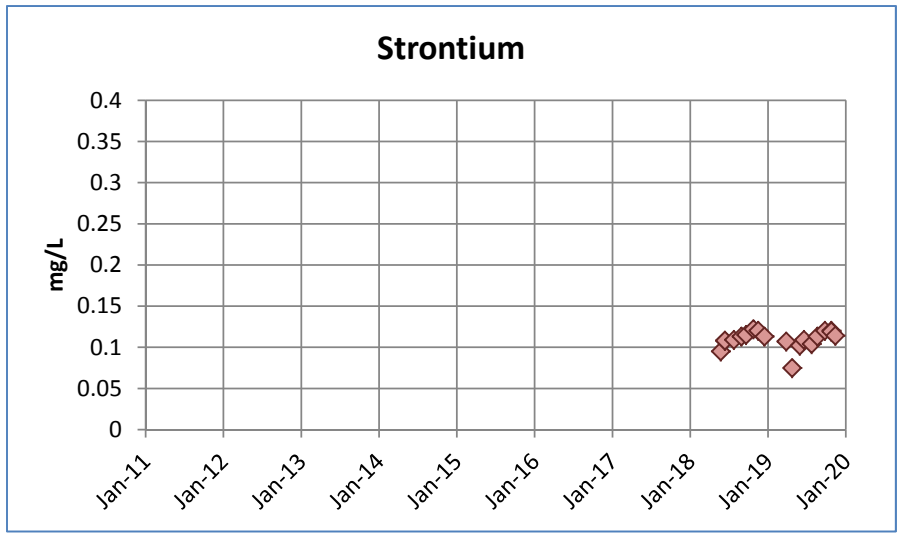
Hydrometrics, Inc.
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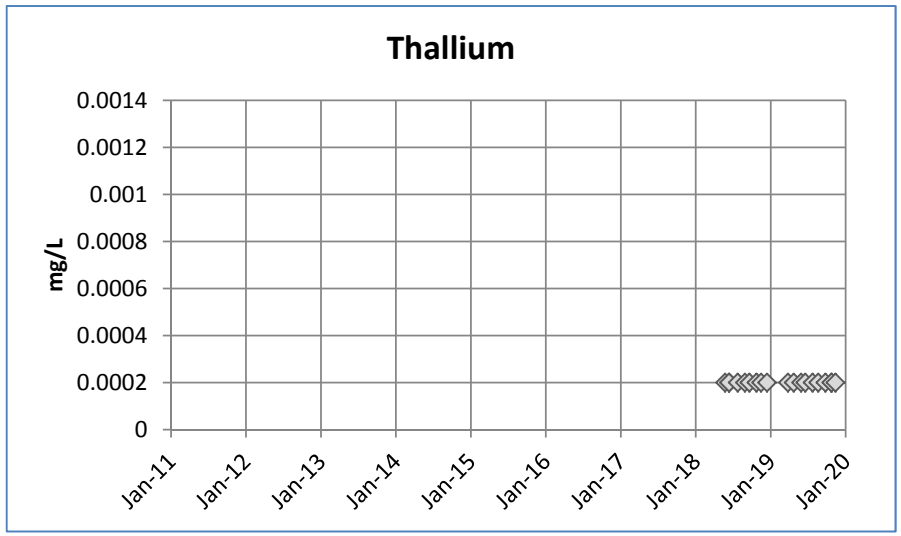
SP-10 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SP-10





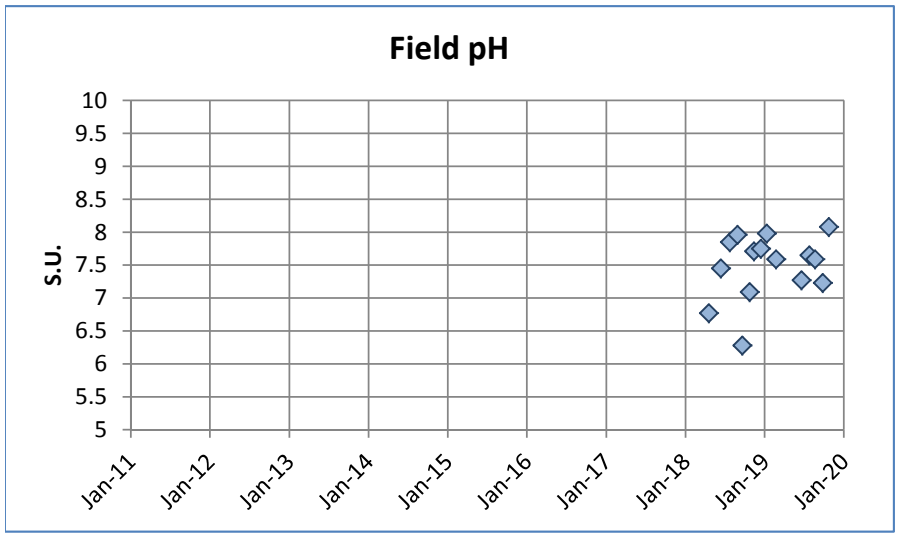


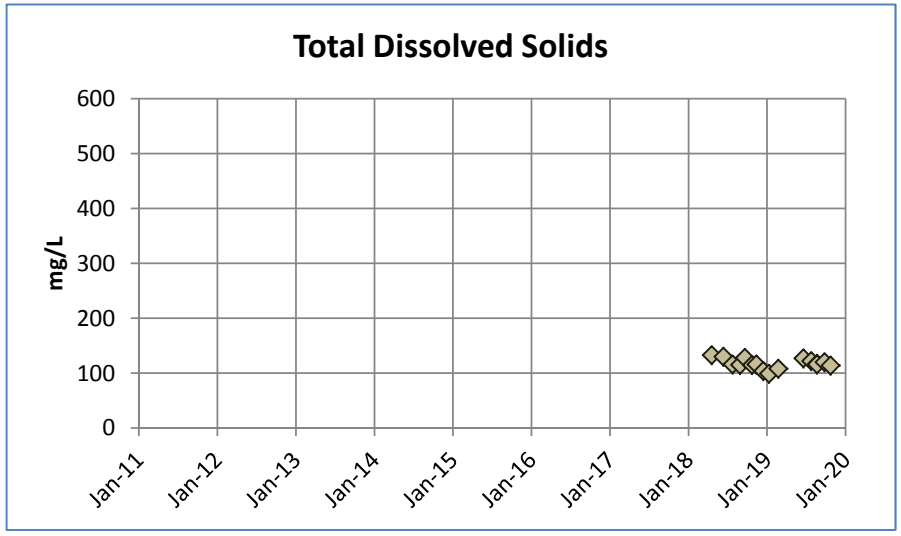


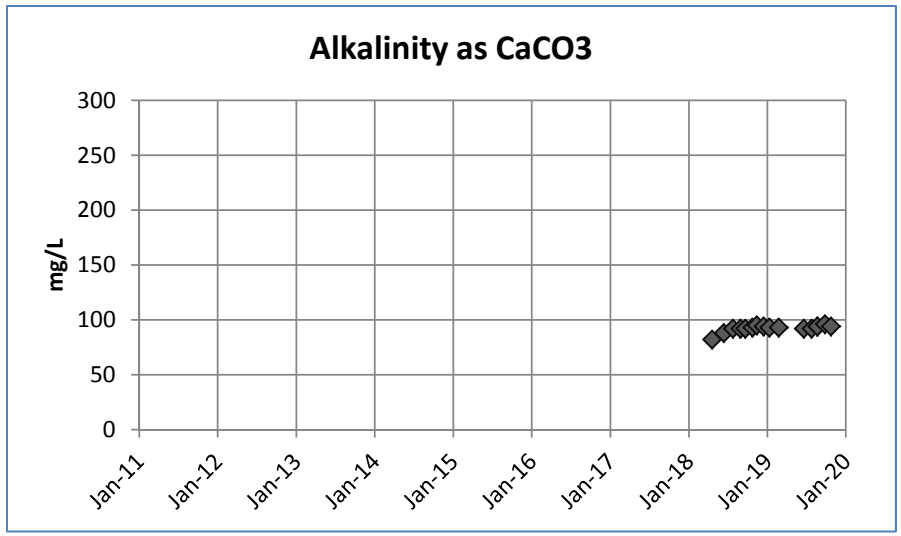
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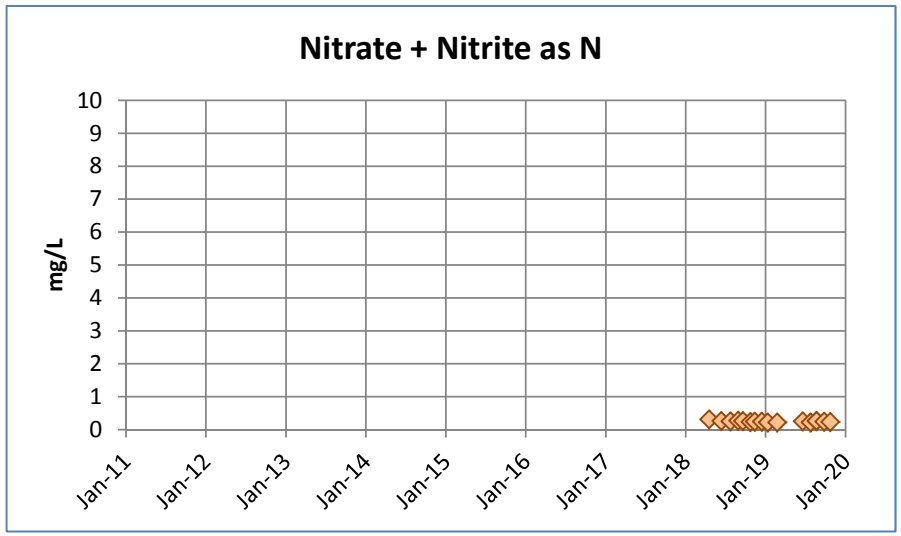
SP-10 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SP-11





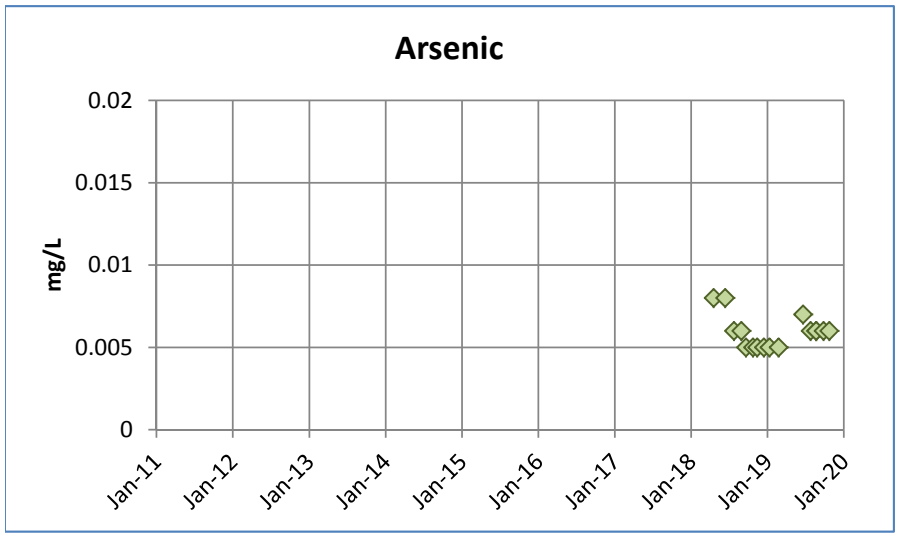


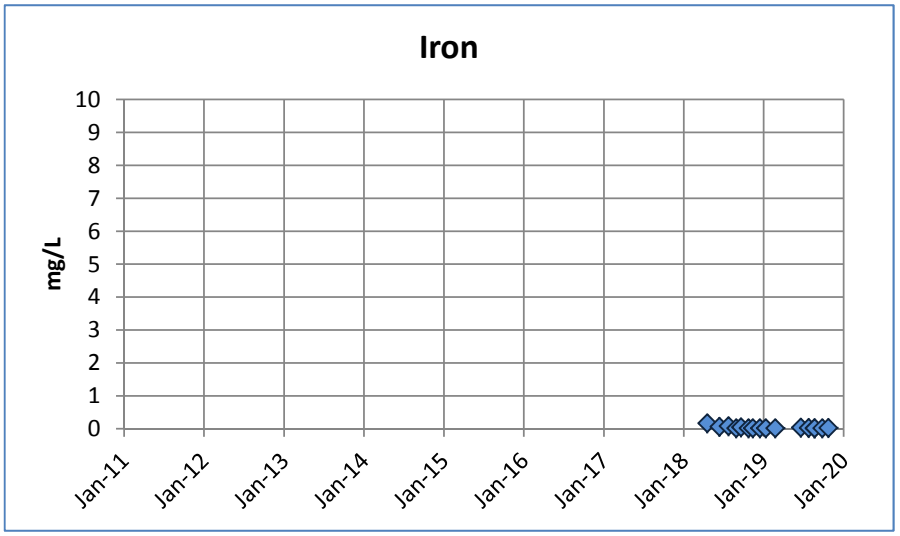


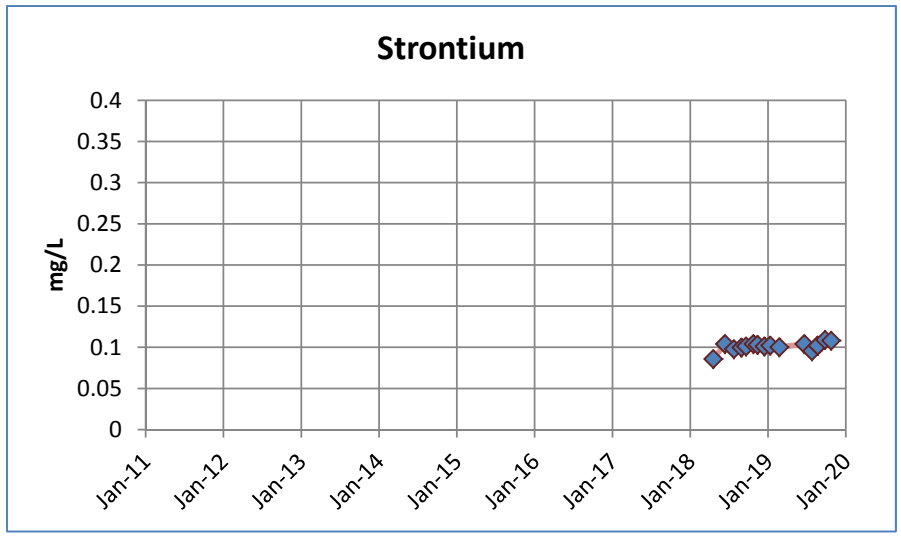
Hydrometrics, Inc.
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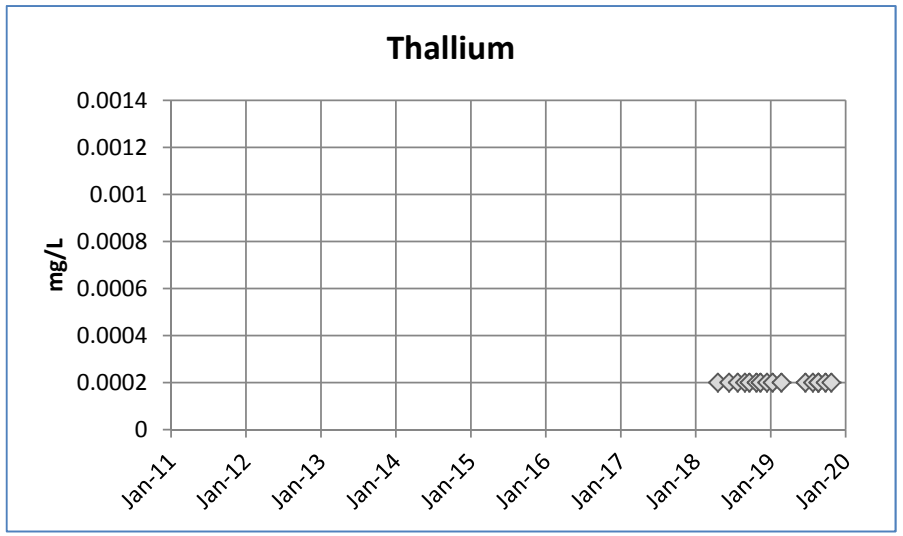
SP-11 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SP-11





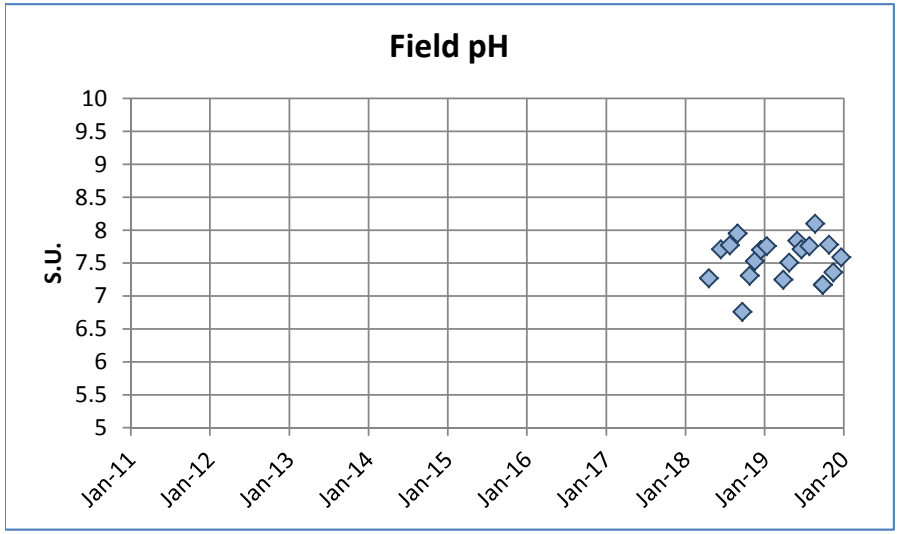


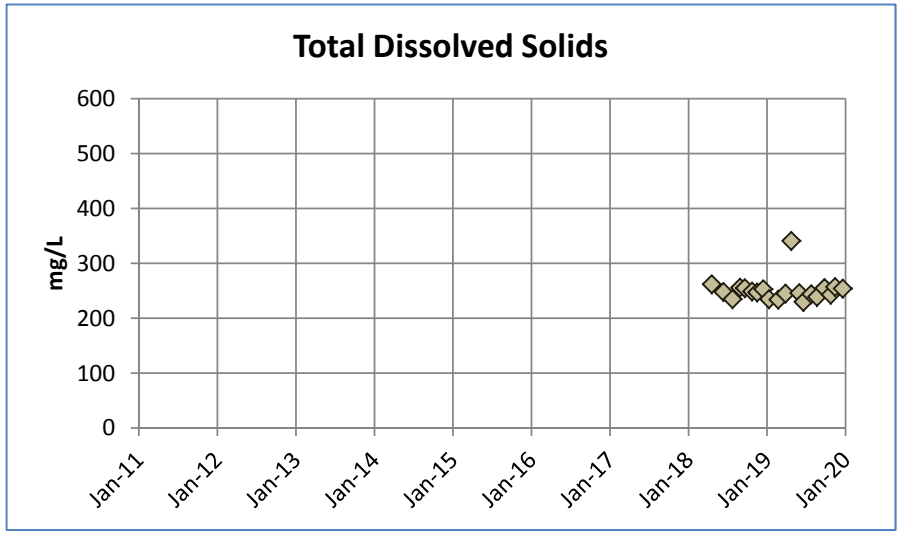


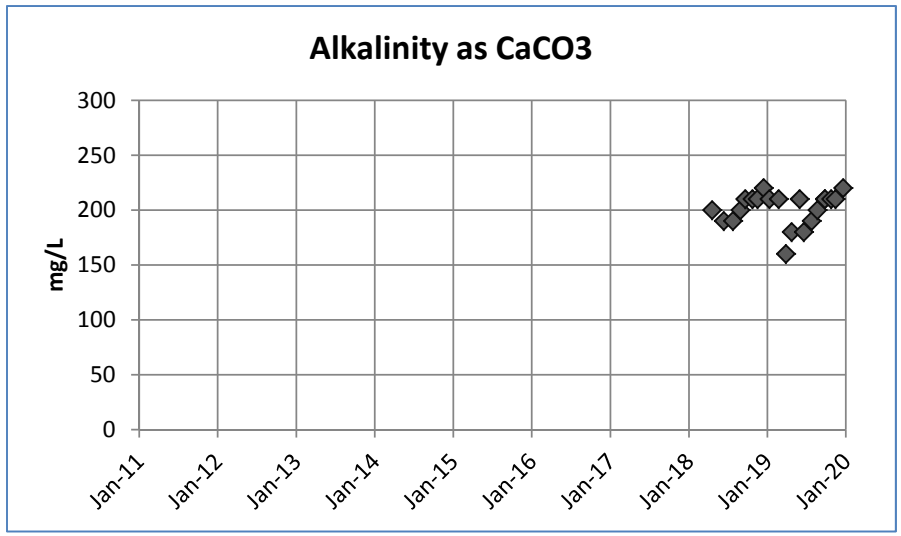
Hydrometrics, Inc.
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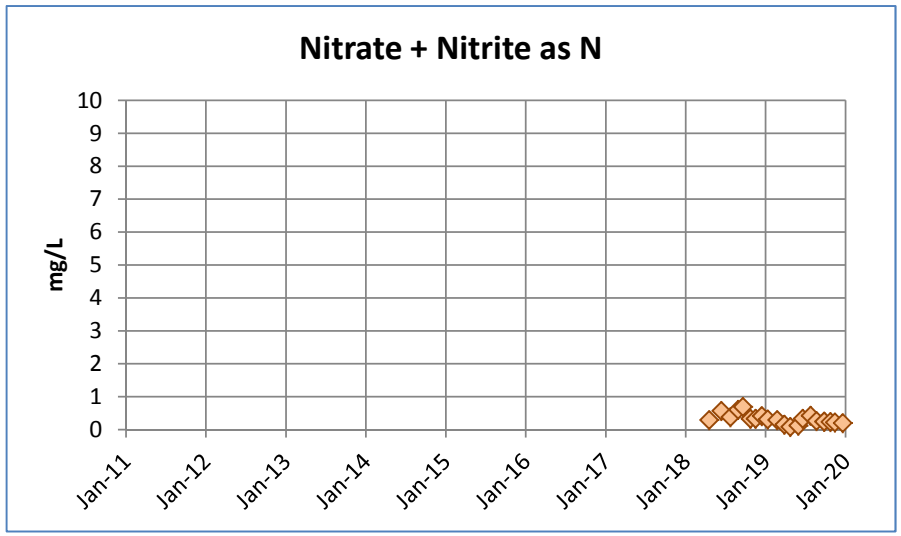
SP-11 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SP-12





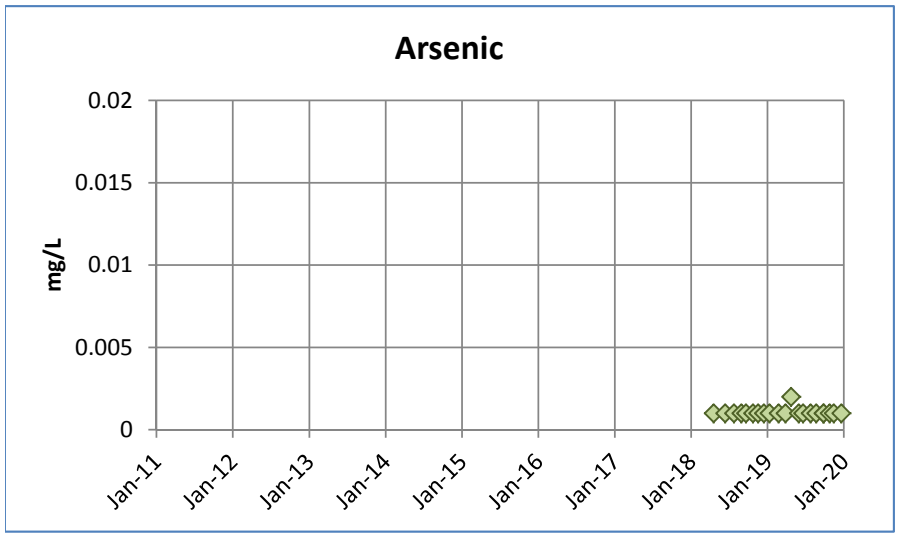


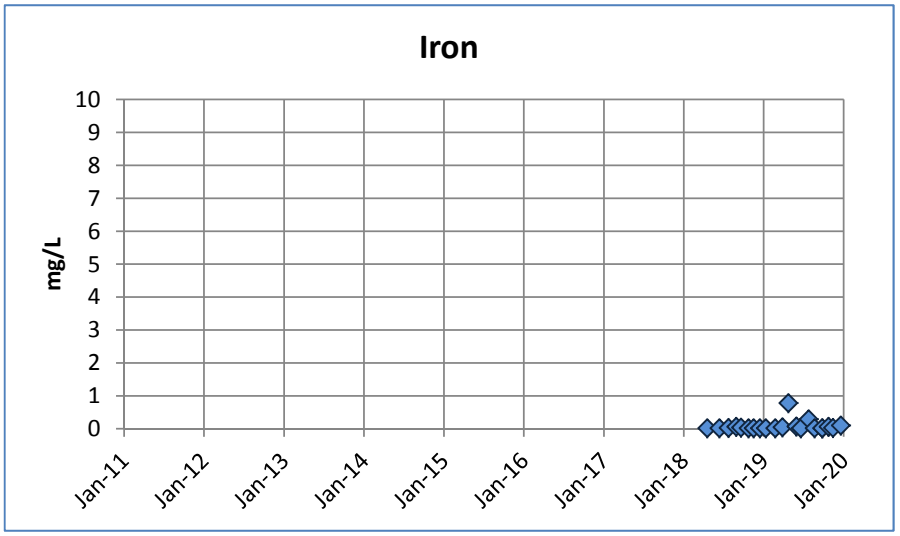


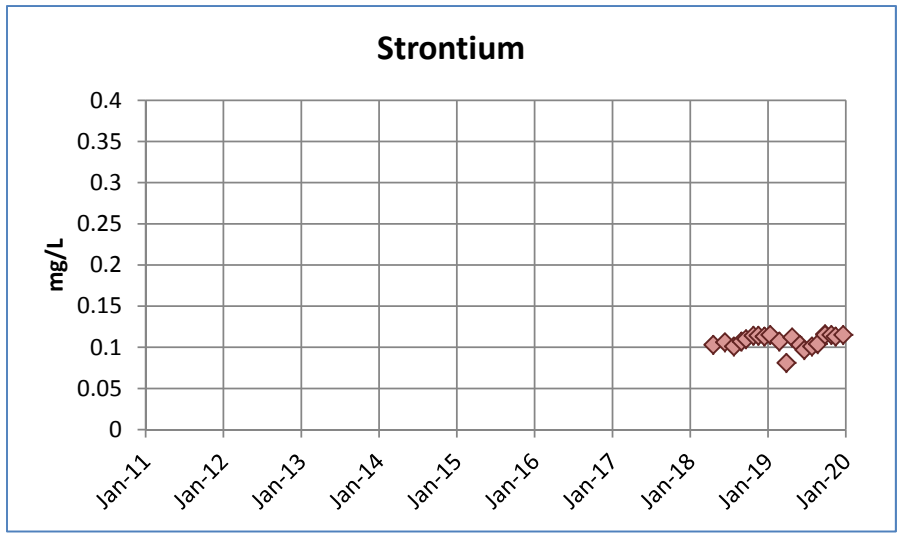
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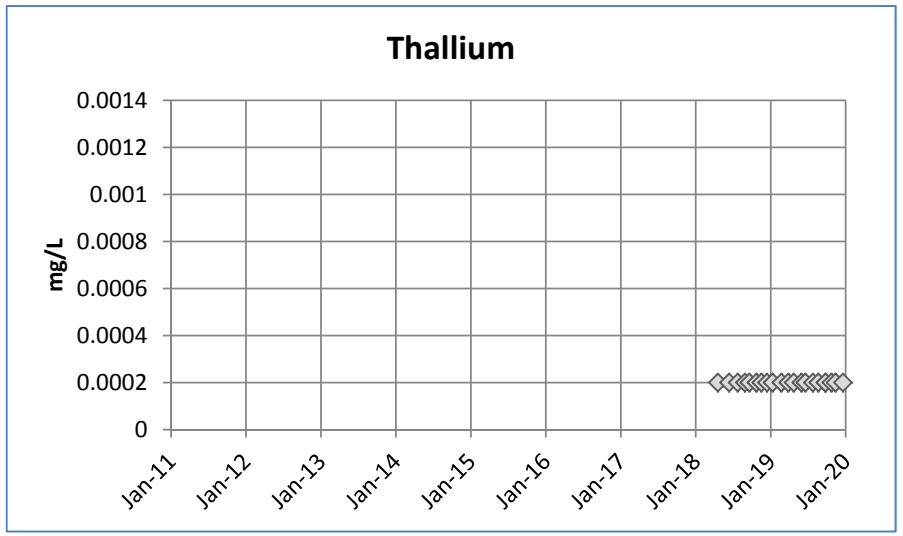
SP-12 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SP-12









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SP-12 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

APPENDIX D

GROUNDWATER QUALITY DATA
SUMMARY AND TREND GRAPHS

Station Name	Reporting Units	Human Health Standard Groundwater	MW-1A	MW-1A	MW-1A	MW-1A	MW-1B	MW-1B	MW-1B	MW-1B	MW-2A	MW-2A	MW-2A	MW-2A	MW-2B	MW-2B	MW-2B	MW-2B	MW-3	MW-3	MW-3	MW-3	MW-3
Sample Date			3/26/19 12:00	6/19/19 17:35	9/18/19 13:35	11/12/19 14:15	3/26/19 10:55	6/19/19 15:45	9/18/19 12:20	11/11/19 17:05	3/26/19 09:30	6/17/19 17:55	9/18/19 18:00	11/12/19 09:45	3/26/19 10:00	6/17/19 18:20	9/18/19 18:30	11/12/19 10:15	3/25/19 15:40	6/17/19 16:55	9/19/19 18:25	9/19/19 19:00	11/12/19 11:50
Sample ID			BBC-1903-206	BBC-1906-215	BBC-1909-206	BBC-1911-204	BBC-1903-205	BBC-1906-214	BBC-1909-205	BBC-1911-203	BBC-1903-203	BBC-1906-201	BBC-1909-208	BBC-1911-205	BBC-1903-204	BBC-1906-202	BBC-1909-209	BBC-1911-206	BBC-1903-200	BBC-1906-200	BBC-1909-222	BBC-1909-223	BBC-1911-207
Lab Name			Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
Remarks																						Duplicate	
Lab Sample ID			H19030476-007	H19060528-016	H19090556-003	H19110301-005	H19030476-006	H19060528-015	H19090556-002	H19110301-004	H19030476-004	H19060528-002	H19090556-005	H19110301-006	H19030476-005	H19060528-003	H19090556-006	H19110301-007	H19030476-001	H19060528-001	H19090556-019	H19090556-020	H19110301-008
StationTypeCode			MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW
SampleMatrix			Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water
Field Parameters																							
Depth To Water	Feet		7.41	2.91	6.94	7.85	24.18	22.29	23.56	23.86	42.02	41.7	41.85	41.98	41.32	41.54	41.82	41.98	41.38	37.63	39.5	39.5	39.16
Dissolved Oxygen	mg/L		8.94	9.14	8.86	9.38	0.07	0.18	0.09	0.05	7.6	7.48	7.74	7.91	0.2	0.1	0.38	0.2	0.11	0.06	0.07	0.07	0.05
EH	Millivolts		278.03	191.44	240.202	275.86	193.87	182.84	196.138	227.02	298.68	283.77	241.757	287.03	253.38	299.79	238.14	275.01	195.57	166.47	159.234	159.234	213.3
Field pH	s.u.		7.4	7.28	7.34	7.4	6.42	6.41	6.4	6.34	7.57	7.44	7.47	7.35	7.34	7.29	7.31	7.22	7.19	7.14	7.15	7.15	7.07
Field Specific Conductivity	umhos/cm		337	335	342	350	627.5	555	611	616	388	360	385	386	432	418	419	418	782	728	788	788	789
Water Temperature	Deg C		6.9	8	9.4	7.3	7.8	8.6	8.6	8.1	7.2	7.8	7.9	7.5	7.2	7.7	8	7.6	9	9.6	9.8	9.8	9.4
Physical Parameters																							
Total Dissolved Solids	mg/L		194	187	205	203	435	422	429	434	208	192	210	216	237	248	232	235	521	508	548	549	532
Total Suspended Solids	mg/L		45	52	108	129 J	37	<10	<10	18 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Major Constituents - Commons Ions																							
Alkalinity as CaCO3	mg/L		170	160	170	170	110	96	110	100	190	180	190	190	200	200	200	190	220	210	220	220	210
Calcium (DIS)	mg/L		44	44	42	43	68	62	61	58	46	41	42	44	52	50	47	47	77	72	72	72	73
Chloride	mg/L		2	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Fluoride	mg/L	4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.7	0.8	0.7	0.7	0.7
Hardness as CaCO3	mg/L		187	184	177	178	316	287	282	266	215	193	198	203	244	235	222	219	406	378	379	381	378
Magnesium (DIS)	mg/L		19	18	17	17	36	32	32	30	24	22	22	23	28	27	25	25	52	48	48	49	48
Potassium (DIS)	mg/L		1	1	1	1	3	3	3	3	1	1	1	1	1	2	1	1	3	4	3	3	3
Sodium (DIS)	mg/L		2	2	2	2	3	3	3	4	3	3	2	3	3	3	3	3	16	16	15	15	16
Sulfate	mg/L		14	15	15	15	226	225	219	208	22	21	20	19	37	41	34	32	222	221	218	218	204
Nutrients																							
Nitrate + Nitrite as N	mg/L	10	0.42	0.43	0.44	0.03	0.04	0.04	0.06	<0.01	0.2	0.22	0.23	0.42	<0.01	<0.01	<0.01	0.22	<0.01	<0.01	<0.01	<0.01	<0.01
Metals - Trace Constituents																							
Aluminum (DIS)	mg/L		0.022	0.023	0.018	0.013	0.017	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009
Antimony (DIS)	mg/L	0.006	<0.0005	<0.0005	<0.0005	<0.0005	0.0008	0.0009	0.0009	0.0006	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (DIS)	mg/L	0.01	<0.001	<0.001	<0.001	<0.001	0.07	0.067	0.066	0.062	<0.001	<0.001	<0.001	<0.001	0.003	0.003	0.003	0.004	0.071	0.068	0.064	0.065	0.07
Barium (DIS)	mg/L	1	0.181	0.168	0.169	0.167	0.011	0.011	0.011	0.013	0.084	0.083	0.083	0.087	0.043	0.044	0.041	0.042	0.011	0.011	0.011	0.011	0.012
Beryllium (DIS)	mg/L	0.004	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Cadmium (DIS)	mg/L	0.005	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Chromium (DIS)	mg/L	0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt (DIS)	mg/L		<0.01	<0.01	<0.01	<0.01	0.02	0.02	0.02	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper (DIS)	mg/L	1.3	0.006	0.007	0.006	0.006	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Iron (DIS)	mg/L		<0.02	<0.02	<0.02	0.04	20	18.9	19	17.9	<0.02	<0.02	<0.02	0.03	0.02	0.04	<0.02	0.03	1.02	1.01	0.99	1	1
Lead (DIS)	mg/L	0.015	0.0003	0.0004	0.0004	0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Manganese (DIS)	mg/L		<0.005	<0.005	<0.005	<0.005	0.075	0.075	0.076	0.078	<0.005	<0.005	<0.005	<0.005	0.007	0.009	0.005	0.006	0.016	0.015	0.014	0.014	0.023
Mercury (DIS)	ug/L		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Molybdenum (DIS)	mg/L		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Nickel (DIS)	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	0.011	0.011	0.01	0.011	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium (DIS)	mg/L	0.05	0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0013	0.0012	0.0008	0.001	0.0066	0.0051	0.005	0.0083	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Silver (DIS)	mg/L	0.1	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Strontium (DIS)	mg/L	4	0.0995	0.0996	0.0944	0.102	1.83	1.87	1.77 L	1.71 L	0.0925	0.0919	0.0884	0.0937	0.0912	0.0951	0.0862	0.0904	13.6	13.6	13.3 L	13.3 L	12.8 L
Thallium (DIS)	mg/L	0.002	0.0009	0.0009	0.0009	0.0008	0.0125	0.0113	0.0117	0.0123	0.0002	<0.0002	<0.0002	<0.0002	0.0038	0.0036	0.0034	0.0035	0.0004	0.0003	0.0003	0.0003	0.0003
Uranium (DIS)	mg/L	0.03	0.001	0.0009	0.0009	0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0005	0.0005	0.0005	0.0005	0.0023	0.0022	0.0021	0.0021	0.0011	0.0011	0.001	0.001	0.0011
Zinc (DIS)	mg/L	2	<0.002	<0.002	<0.002	0.002	0.012	0.012	0.012	0.013	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.007

Definitions:

J = Field Duplicate sample exceeded QA/QC comparison control limits
U = Field Blank sample exceeded QA/QC comparison control limits
H = Holding time exceeded QA/QC comparison control limits
D = Reporting limit increased due to sample matrix interference
L = The lowest available reporting limit was used per method used for analysis
NM = Not measured
NF-ICE = Not flowing; ice on ground
NM-ICE = Not measured; ice prohibitive
NF-DRY = Not flowing; Dry ground

Analyte concentration exceeds the standard for:

Human Health Standard Groundwater

Source:

Montana DEQ-7 May 2017
Montana DEQ-7 June 2019

Station Name	Reporting Units	Human Health Standard Groundwater	MW-4A	MW-4A	MW-4A	MW-4A	MW-4B	MW-4B	MW-4B	MW-4B	MW-6A	MW-6A	MW-6A	MW-6A	MW-6A	MW-6B	MW-6B	MW-6B	MW-6B	MW-7	MW-7	MW-7	MW-7
Sample Date			3/27/19 16:50	6/20/19 09:10	9/20/19 09:55	11/11/19 15:00	3/27/19 16:15	6/20/19 09:50	9/20/19 10:25	11/11/19 15:35	3/28/19 11:35	3/28/19 11:50	6/20/19 13:35	9/19/19 12:55	11/12/19 15:40	3/28/19 12:00	6/20/19 14:10	9/19/19 13:30	11/12/19 16:15	3/28/19 10:40	6/20/19 14:40	9/19/19 15:20	11/12/19 16:40
Sample ID			BBC-1903-216	BBC-1906-218	BBC-1909-225	BBC-1911-200	BBC-1903-215	BBC-1906-219	BBC-1909-226	BBC-1911-201	BBC-1903-219	BBC-1903-220	BBC-1906-223	BBC-1909-216	BBC-1911-210	BBC-1903-221	BBC-1906-224	BBC-1909-217	BBC-1911-211	BBC-1903-218	BBC-1906-225	BBC-1909-218	BBC-1911-209
Lab Name			Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
Remarks												Duplicate											
Lab Sample ID			H19030547-002	H19060528-019	H19090556-022	H19110301-001	H19030547-001	H19060528-020	H19090556-023	H19110301-002	H19030547-005	H19030547-006	H19060562-003	H19090556-013	H19110301-011	H19030547-007	H19060562-004	H19090556-014	H19110301-012	H19030547-004	H19060562-005	H19090556-015	H19110301-010
StationTypeCode			MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW
SampleMatrix			Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water
Field Parameters																							
Depth To Water	Feet		4.9	3.9	4.43	4.55	4.35	3.45	4.05	4.03	7.84		7.02	8.45	8.7	11.13	10.2	11.7	11.86	32.32	31.31	32.06	32.27
Dissolved Oxygen	mg/L		0.24	0.21	0.17	0.17	0.36	0.25	0.08	0.09	5.34		6.73	7.13	5.1	NM	4.4	3.66	3.23	0.34	0.51	4	3.28
EH	Millivolts		298.07	287.43	213.436	272.13	238.13	223.6	198.961	230.8	282.08		262.36	267.768	273.43	NM	244.4	256.493	271.14	250.69	194.26	190.417	267.59
Field pH	s.u.		NM	7.36	7.19	7.4	7.11	7.6	7.56	7.55	7.59		7.73	7.66	7.59	NM	7.75	7.7	7.65	7.48	7.6	7.75	7.6
Field Specific Conductivity	umhos/cm		496	484	569	543	443	431	449	447	451		397	437	451	NM	424	454	458	535	509	526	547
Water Temperature	Deg C		4.3	5.1	9.2	7.5	6.3	6.5	6.7	6.5	5.4		6.1	9.6	7.5	NM	6.5	7.1	6.8	7.1	7.9	9.9	7.1
Physical Parameters																							
Total Dissolved Solids	mg/L		267	274	328	315	234	240	250	242	246	244	223	244	249	249	238	252	252	310	308	327	323
Total Suspended Solids	mg/L		<10	<10	<10	<10	<10	<10	<10	<10	23	28	36	28	38 J	<10	25	<10	<10	41	34	100	25 J
Major Constituents - Commons Ions																							
Alkalinity as CaCO3	mg/L		250	240	300	270	220	220	230	220	230	230	210	230	230	230	210	230	230	230	220	230	220
Calcium (DIS)	mg/L		71	75	84	87	62	64	61	67	56	57	47	53	55	50	41	47	47	60	50	57	55
Chloride	mg/L		3	3	5	9	2	2	2	3	<1	<1	<1	1	<1	<1	<1	<1	<1	4	4	4	4
Fluoride	mg/L	4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.3
Hardness as CaCO3	mg/L		258	271	301	323	234	241	232	259	243	247	207	229	237	227	190	210	212	307	266	291	284
Magnesium (DIS)	mg/L		20	20	22	23	19	20	19	22	25	25	22	23	24	25	21	23	23	38	34	36	36
Potassium (DIS)	mg/L		1	1	2	2	1	2	1	1	<1	<1	<1	<1	<1	1	1	1	1	1	1	1	1
Sodium (DIS)	mg/L		3	3	3	3	3	2	2	2	3	3	3	3	3	14	17	15	15	3	3	3	3
Sulfate	mg/L		15	15	15	14	14	15	15	15	17	17	12	15	15	23	22	23	22	62	64	70	66
Nutrients																							
Nitrate + Nitrite as N	mg/L	10	<0.01	<0.01	<0.01	0.03	0.07	0.06	0.04	<0.01	0.1	0.1	0.15	0.14	0.1	0.07	0.11	0.09	0.08	<0.01	<0.01	<0.01	<0.01
Metals - Trace Constituents																							
Aluminum (DIS)	mg/L		<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	0.011	<0.009	<0.009	0.014	0.011	0.037	0.015
Antimony (DIS)	mg/L	0.006	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (DIS)	mg/L	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.001	0.001	0.002
Barium (DIS)	mg/L	1	0.175	0.172	0.21	0.2	0.128	0.126	0.125	0.132	0.179	0.18	0.164	0.175	0.186	0.111	0.094	0.104	0.116	0.042	0.04	0.04	0.04
Beryllium (DIS)	mg/L	0.004	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Cadmium (DIS)	mg/L	0.005	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Chromium (DIS)	mg/L	0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt (DIS)	mg/L		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper (DIS)	mg/L	1.3	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Iron (DIS)	mg/L		<0.02	<0.02	0.08	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	0.05	0.05	0.1	0.04
Lead (DIS)	mg/L	0.015	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.0006	0.0005	0.0014	0.0007
Manganese (DIS)	mg/L		0.23	0.249	0.386	0.304	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.016	0.007	0.015	0.007
Mercury (DIS)	ug/L		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Molybdenum (DIS)	mg/L		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.004	0.004	0.003	0.004
Nickel (DIS)	mg/L	0.1	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
Selenium (DIS)	mg/L	0.05	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Silver (DIS)	mg/L	0.1	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Strontium (DIS)	mg/L	4	0.169	0.163	0.187	0.184	0.174	0.167	0.164	0.174	0.169	0.17	0.14	0.155	0.167	0.238	0.217	0.225	0.232	0.17	0.148	0.158	0.161
Thallium (DIS)	mg/L	0.002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Uranium (DIS)	mg/L	0.03	0.0004	0.0004	0.0004	0.0004	0.0006	0.0006	0.0006	0.0006	0.0007	0.0007	0.0006	0.0007	0.0007	0.0007	0.0006	0.0006	0.0007	0.0023	0.0019	0.002	0.0021
Zinc (DIS)	mg/L	2	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

Definitions:

J = Field Duplicate sample exceeded QA/QC comparison contr
U = Field Blank sample exceeded QA/QC comparison control l
H = Holding time exceeded QA/QC comparison control limit
D = Reporting limit increased due to sample matrix interference
L = The lowest available reporting limit was used per method u
NM = Not measured
NF-ICE = Not flowing; ice on ground
NM-ICE = Not measured; ice prohibitive
NF-DRY = Not flowing; Dry ground

Analyte concentration exceeds the standard for:

Human Health Standard Groundwate

Source:

Montana DEQ-7 May 2017
Montana DEQ-7 June 2019

Station Name	Reporting Units	Human Health Standard Groundwater	MW-8	MW-8	MW-8	MW-8	MW-9	MW-9	MW-9	MW-9	MW-10	MW-10	MW-10	MW-10	MW-11	MW-11	MW-11	MW-11	MW-12	MW-12	MW-12	MW-12	MW-13
Sample Date			3/28/19 09:50	6/20/19 15:45	9/19/19 15:00	11/13/19 10:05	3/25/19 17:25	6/19/19 17:00	9/20/19 12:40	11/12/19 13:45	3/26/19 16:45	6/20/19 18:40	9/19/19 11:30	11/13/19 13:40	3/26/19 15:30	6/21/19 09:20	9/19/19 11:00	11/13/19 11:40	3/26/19 14:25	6/21/19 09:50	9/19/19 10:25	11/13/19 12:30	3/26/19 13:50
Sample ID			BBC-1903-217	BBC-1906-226	BBC-1909-219	BBC-1911-214	BBC-1903-201	BBC-1906-213	BBC-1909-227	BBC-1911-208	BBC-1903-211	BBC-1906-227	BBC-1909-210	BBC-1911-215	BBC-1903-210	BBC-1906-228	BBC-1909-214	BBC-1911-216	BBC-1903-209	BBC-1906-229	BBC-1909-213	BBC-1911-219	BBC-1903-208
Lab Name			Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
Remarks																							
Lab Sample ID			H19030547-003	H19060562-006	H19090556-016	H19110302-003	H19030476-002	H19060528-014	H19090556-024	H19110301-009	H19030476-012	H19060562-007	H19090556-007	H19110302-004	H19030476-011	H19060562-008	H19090556-011	H19110302-005	H19030476-010	H19060562-009	H19090556-010	H19110302-007	H19030476-009
StationTypeCode			MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW
SampleMatrix			Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water
Field Parameters																							
Depth To Water	Feet		31.75	27.98	30.21	31.06	51.68	48.67	51.26	51.98	81.43	66.23	74.79	77.4	34.46	25.75	32.55	33.8	28.91	22.54	26.82	28.02	22.05
Dissolved Oxygen	mg/L		0.58	0.03	0.08	0.12	0.06	0.04	0.06	0.07	8.1	7.65	7.71	8.14	7.62	9.57	9.31	9.21	7.4	9.35	8.38	7.98	7.67
EH	Millivolts		150.64	83.66	102.608	170.18	207.06	153.84	173.536	222.25	264.41	272	261.153	281.13	265.45	281.21	259.021	275.57	269.74	283.58	269.295	281.4	268.18
Field pH	s.u.		7.89	8.06	7.98	8.01	7.1	7.05	7.03	6.98	7.97	8.04	7.75	7.81	7.77	7.72	7.7	7.73	7.63	7.6	7.6	7.64	7.63
Field Specific Conductivity	umhos/cm		309	293	308	307	784	708	791	796	325	351	356	356	319	296	315	317	417	342	412	412	426
Water Temperature	Deg C		6.8	7.3	7.6	7.2	8.5	9.2	9.2	9.1	8.2	6.5	9.1	6.9	9.1	7.6	8.7	8.4	6.8	6	6.5	6.5	6.6
Physical Parameters																							
Total Dissolved Solids	mg/L		160	151	162	159	506	505	529	527	187	188	197	194	182	160	177	184	226	210	220	229	227
Total Suspended Solids	mg/L		<10	<10	<10	<10	<10	<10	<10	<10	33	<10	<10	<10	21	25	12	14 J	<10	<10	<10	<10	13
Major Constituents - Commons Ions																							
Alkalinity as CaCO3	mg/L		160	140	150	150	240	230	250	240	180	180	190	180	170	150	170	160	220	200	220	210	220
Calcium (DIS)	mg/L		25	23	25	25	91	92	82	84	43	44	42	40	48	43	43	43	61	58	56	55	63
Chloride	mg/L		<1	<1	<1	<1	1	1	1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Fluoride	mg/L	4	0.2	0.2	0.2	0.2	0.5	0.5	0.5	0.5	0.2	0.2	0.2	0.2	<0.1	<0.1	<0.1	<0.1	0.1	0.1	0.1	0.1	0.1
Hardness as CaCO3	mg/L		158	146	156	159	450	451	405	413	183	184	174	168	172	151	153	153	237	223	217	211	248
Magnesium (DIS)	mg/L		23	22	23	23	54	54	49	49	19	18	17	17	12	11	11	11	21	19	19	18	22
Potassium (DIS)	mg/L		<1	<1	<1	<1	4	4	4	4	2	2	2	2	2	2	2	2	<1	<1	<1	<1	<1
Sodium (DIS)	mg/L		3	3	3	3	6	5	5	6	6	6	6	6	6	4	4	5	2	2	2	2	2
Sulfate	mg/L		15	16	15	15	198	197	195	186	5	4	4	4	6	5	5	5	13	11	12	12	17
Nutrients																							
Nitrate + Nitrite as N	mg/L	10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.53	0.6	0.57	0.55	0.44	0.47	0.4	0.38	0.16	0.13	0.15	0.15	0.23
Metals - Trace Constituents																							
Aluminum (DIS)	mg/L		<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	0.019	0.027	<0.009	0.01	0.01	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009
Antimony (DIS)	mg/L	0.006	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (DIS)	mg/L	0.01	0.002	0.002	0.002	0.002	0.014	0.014	0.012	0.015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Barium (DIS)	mg/L	1	0.079	0.077	0.076	0.079	0.016	0.014	0.014	0.014	0.189	0.211	0.204	0.206	0.162	0.149	0.155	0.161	0.053	0.051	0.051	0.054	0.056
Beryllium (DIS)	mg/L	0.004	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Cadmium (DIS)	mg/L	0.005	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Chromium (DIS)	mg/L	0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt (DIS)	mg/L		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper (DIS)	mg/L	1.3	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Iron (DIS)	mg/L		0.1	0.09	0.09	0.09 B	0.86	0.9	0.85	0.83	<0.02	0.02	<0.02	0.03 B	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Lead (DIS)	mg/L	0.015	<0.0003	<0.0003	<0.0003	<0.0003	0.0013	0.0014	0.0008	0.0021	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Manganese (DIS)	mg/L		0.019	0.018	0.009	0.01	0.088	0.083	0.083	0.09	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Mercury (DIS)	ug/L		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Molybdenum (DIS)	mg/L		0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.005	0.004	0.004	0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Nickel (DIS)	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium (DIS)	mg/L	0.05	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Silver (DIS)	mg/L	0.1	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Strontium (DIS)	mg/L	4	0.0877	0.0787	0.0832	0.0838	1.34	1.34	1.22 L	1.39 L	0.956	0.893	0.886	0.983 L	0.326	0.322	0.322	0.319	0.141	0.136	0.135	0.141	0.101
Thallium (DIS)	mg/L	0.002	<0.0002	<0.0002	<0.0002	<0.0002	0.0027	0.0027	0.0032	0.0036	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Uranium (DIS)	mg/L	0.03	0.0008	0.0008	0.0007	0.0007	0.001	0.0009	0.0009	0.001	0.0088	0.0051	0.0051	0.0055	0.0019	0.0015	0.0015	0.0017	0.0008	0.0007	0.0007	0.0007	0.0006
Zinc (DIS)	mg/L	2	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

Definitions:

J = Field Duplicate sample exceeded QA/QC comparison contr
U = Field Blank sample exceeded QA/QC comparison control l
H = Holding time exceeded QA/QC comparison control limit
D = Reporting limit increased due to sample matrix interference
L = The lowest available reporting limit was used per method u
NM = Not measured
NF-ICE = Not flowing; ice on ground
NM-ICE = Not measured; ice prohibitive
NF-DRY = Not flowing; Dry ground

Analyte concentration exceeds the standard for:

Human Health Standard Groundwate

Source:

Montana DEQ-7 May 2017
Montana DEQ-7 June 2019

Station Name	Reporting Units	Human Health Standard Groundwater	MW-13	MW-13	MW-13	MW-16	MW-16	MW-16	MW-16	MW-17	MW-17	MW-17	MW-17	MW-18	MW-18	MW-18	MW-18	MW-19	MW-19	MW-19	MW-19	MW-20	MW-20
Sample Date			6/21/19 10:25	9/19/19 09:55	11/13/19 12:45	3/25/19 18:15	6/20/19 10:30	9/20/19 09:10	11/11/19 16:15	3/27/19 09:30	6/21/19 12:35	9/19/19 16:50	11/13/19 15:20	3/26/19 17:45	6/21/19 11:45	9/19/19 15:55	11/13/19 14:10	3/26/19 13:00	6/21/19 11:00	9/19/19 09:25	11/13/19 13:15	3/27/19 10:30	6/20/19 12:55
Sample ID			BBC-1906-230	BBC-1909-212	BBC-1911-221	BBC-1903-202	BBC-1906-220	BBC-1909-224	BBC-1911-202	BBC-1903-213	BBC-1906-232	BBC-1909-221	BBC-1911-226	BBC-1903-212	BBC-1906-221	BBC-1909-220	BBC-1911-225	BBC-1903-207	BBC-1906-231	BBC-1909-211	BBC-1911-222	BBC-1903-214	BBC-1906-222
Lab Name			Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
Remarks																							
Lab Sample ID			H19060562-010	H19090556-009	H19110302-009	H19030476-003	H19060528-021	H19090556-021	H19110301-003	H19030476-014	H19060562-012	H19090556-018	H19110302-014	H19030476-013	H19060562-001	H19090556-017	H19110302-013	H19030476-008	H19060562-011	H19090556-008	H19110302-010	H19030476-015	H19060562-002
StationTypeCode			MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW
SampleMatrix			Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water
Field Parameters																							
Depth To Water	Feet		17.54	27.6	21.4	7.2	5.4	7.35	7.38	55.76	46.6	50.5	52.15	17.17	11.95	16.34	16.95	14.18	8.97	13.51	14.1	20.04	21.9
Dissolved Oxygen	mg/L		8.97	8.09	7.77	0.2	0.2	0.08	0.2	4.73	6.62	6.83	5.65	7.7	7.72	8.63	8.62	8.07	7.67	7.47	8.14	9.45	9.25
EH	Millivolts		280.61	267.812	279.68	173.06	155.61	143.844	204.58	254.08	278.54	232.942	276.11	266.98	271.05	252.361	278.83	273.25	278.98	273.291	282.14	259.06	251.36
Field pH	s.u.		7.6	7.57	7.6	7.32	7.32	7.25	7.27	7.73	7.74	7.75	7.72	7.84	7.78	7.76	7.75	7.54	7.57	7.52	7.5	7.76	7.81
Field Specific Conductivity	umhos/cm		388	425	427	623	581	615	619	392	358	385	387	356	337	368	370	366	329	400	402	382	364
Water Temperature	Deg C		5.8	6.4	6.6	6.7	6.4	6.8	6.6	6.6	6.8	7.4	7	6	4.4	6.7	6.9	6.2	6	7.7	7.4	6.7	6.7
Physical Parameters																							
Total Dissolved Solids	mg/L		221	231	233	371	342	372	378	214	203	213	214	194	187	200	197	203	202	217	220	208	205
Total Suspended Solids	mg/L		<10	52	37 J	17	<10	10	16 J	14	<10	15	<10	14	<10	18	<10	44	<10	12	17 J	179	19
Major Constituents - Commons Ions																							
Alkalinity as CaCO3	mg/L		210	220	210	240	230	250	240	200	190	200	200	190	190 H	200	190	180	180	210	210	200	190
Calcium (DIS)	mg/L		57	58	57	78	71	70	69	44	43	42	42	50	43	47	46	52	48	51	51	46	43
Chloride	mg/L		<1	<1	<1	2	2	2	2	2	1	1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Fluoride	mg/L	4	0.1	0.1	<0.1	0.5	0.5	0.5	0.5	0.2	0.2	0.3	0.2	<0.1	<0.1	<0.1	<0.1	0.1	0.1	0.1	0.1	<0.1	0.1
Hardness as CaCO3	mg/L		222	225	224	365	326	326	325	214	206	202	204	208	176	191	189	210	196	208	207	209	194
Magnesium (DIS)	mg/L		20	20	20	41	36	37	37	25	24	24	24	20	17	18	18	20	19	19	19	23	21
Potassium (DIS)	mg/L		<1	<1	<1	3	3	3	3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1
Sodium (DIS)	mg/L		2	1	1	4	4	4	4	2	2	2	2	2	2	2	2	2	2	2	2	2	1
Sulfate	mg/L		14	15	15	105	88	95	91	10	9	8	9	8	6	7	8	14	13	14	15	9	8
Nutrients																							
Nitrate + Nitrite as N	mg/L	10	0.15	0.16	0.16	<0.01	<0.01	<0.01	0.05	0.34	0.41	0.41	0.37	0.17	0.18	0.17	0.17	0.25	0.29	0.23	0.22	0.45	0.34
Metals - Trace Constituents																							
Aluminum (DIS)	mg/L		<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	0.016	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	0.018	<0.009	<0.009	0.009	0.013
Antimony (DIS)	mg/L	0.006	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (DIS)	mg/L	0.01	<0.001	<0.001	<0.001	0.006	0.005	0.005	0.006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Barium (DIS)	mg/L	1	0.054	0.054	0.057	0.017	0.018	0.017	0.018	0.253	0.253	0.267	0.253	0.083	0.092	0.098	0.103	0.081	0.077	0.086	0.091	0.178	0.176
Beryllium (DIS)	mg/L	0.004	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Cadmium (DIS)	mg/L	0.005	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Chromium (DIS)	mg/L	0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt (DIS)	mg/L		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper (DIS)	mg/L	1.3	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Iron (DIS)	mg/L		<0.02	<0.02	<0.02	1.36	1.27	1.26	1.32	<0.02	<0.02	<0.02	0.02 B	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02
Lead (DIS)	mg/L	0.015	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Manganese (DIS)	mg/L		<0.005	<0.005	<0.005	0.044	0.041	0.039	0.042	0.008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Mercury (DIS)	ug/L		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Molybdenum (DIS)	mg/L		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Nickel (DIS)	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium (DIS)	mg/L	0.05	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0009	0.001	0.0008	0.0012	0.0003	<0.0002	0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Silver (DIS)	mg/L	0.1	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Strontium (DIS)	mg/L	4	0.0976	0.0963	0.102	0.332	0.276	0.287	0.301	0.114	0.105	0.103	0.107	0.1	0.0894	0.1	0.107	0.13	0.148	0.148	0.145	0.0655	0.0591
Thallium (DIS)	mg/L	0.002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Uranium (DIS)	mg/L	0.03	0.0005	0.0005	0.0005	0.0019	0.0017	0.0017	0.0018	0.0009	0.0009	0.0008	0.0009	0.0005	0.0004	0.0004	0.0005	0.0007	0.0007	0.0007	0.0007	0.0005	0.0005
Zinc (DIS)	mg/L	2	<0.002	<0.002	<0.002	0.005	0.004	0.005	0.006	0.006	0.007	0.005	0.009	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

Definitions:

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U = Field Blank sample exceeded QA/QC comparison control l
H = Holding time exceeded QA/QC comparison control limit
D = Reporting limit increased due to sample matrix interference
L = The lowest available reporting limit was used per method u
NM = Not measured
NF-ICE = Not flowing; ice on ground
NM-ICE = Not measured; ice prohibitive
NF-DRY = Not flowing; Dry ground

Analyte concentration exceeds the standard for:

Human Health Standard Groundwate

Source:

Montana DEQ-7 May 2017
Montana DEQ-7 June 2019

Station Name	Reporting Units	Human Health Standard Groundwater	MW-20	MW-20	MW-20	PW-2	PW-2	PW-3	PW-3	PW-4	PW-4	PW-7	PW-7	PW-8	PW-8	PW-8	PW-9	PW-9	PW-10	PW-10	SC15-184	SC15-184	SC15-184
Sample Date			9/19/19 12:15	11/13/19 09:20	11/13/19 09:40	6/18/19 12:20	9/16/19 16:40	6/20/19 10:55	9/18/19 16:25	6/19/19 17:00	9/18/19 13:10	7/10/19 12:10	10/23/19 13:00	6/19/19 10:05	6/19/19 10:30	9/17/19 17:55	6/18/19 18:30	9/17/19 16:05	6/18/19 15:30	9/17/19 12:05	3/28/19 11:40	6/17/19 17:50	9/20/19 14:25
Sample ID			BBC-1909-215	BBC-1911-212	BBC-1911-213	BBC-1906-207	BBC-1909-200	BBC-1906-217	BBC-1909-207	BBC-1906-212	BBC-1909-204	BBC-1907-708	BBC-1910-700	BBC-1906-210	BBC-1906-211	BBC-1909-203	BBC-1906-209	BBC-1909-202	BBC-1906-208	BBC-1909-201	BBC-1903-300	BBC-1906-203	BBC-1909-229
Lab Name			Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
Remarks					Duplicate										Duplicate								
Lab Sample ID			H19090556-012	H19110302-001	H19110302-002	H19060528-008	H19090441-001	H19060528-018	H19090556-004	H19060528-013	H19090556-001	H19070246-001	H19100566-013	H19060528-011	H19060528-012	H19090441-004	H19060528-010	H19090441-003	H19060528-009	H19090441-002	H19030547-010	H19060528-004	H19090556-026
StationTypeCode			MW	MW	MW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	MW	MW	MW
SampleMatrix			Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water
Field Parameters																							
Depth To Water	Feet		21.5	21.82	21.82	49.29	51	10.1	11.2	50.36	52.48	Artesian	Artesian	39.76	39.76	43.62	45.69	47.02	43.78	44.86	Artesian	NM	0
Dissolved Oxygen	mg/L		9.12	9.14	9.14	0.04	0.05	0.02	0.03	0.26	1.66	0.11	0.04	0.03	0.03	0.02	0.02	0.03	0.77	2.36	7.12	7.32	7.26
EH	Millivolts		255.44	282.19	282.19	80.57	94.553	70.66	91.276	104.84	125.97			139.44	139.44	170.857	147.72	166.755	168.92	172.736	297.63	507.88	241.461
Field pH	s.u.		7.74	7.74	7.74	7.37	7.4	7.35	7.29	7.01	6.95	8.64	8.55	7.16	7.16	7.21	7.1	7.05	7.34	7.45	7.91	7.93	8
Field Specific Conductivity	umhos/cm		392	395	395	517	538	684	754	604	654	481	554	508	508	530	751	824	697	759	372	365	368
Water Temperature	Deg C		8	7.7	7.7	8.4	9.1	6.7	7.2	8.6	9	11.4	11.3	8	8	7.9	8.7	8.5	9.9	9.2	6.3	6.6	6.7
Physical Parameters																							
Total Dissolved Solids	mg/L		216	214	215	299	315	463	480	405	436	328	309	322	325	336	544	584	501	522	198	194	195
Total Suspended Solids	mg/L		77	119 J	206 J	<10	<10	10	10	<10	25	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Major Constituents - Commons Ions																							
Alkalinity as CaCO3	mg/L		210	200	210	230	250	250	270	160	170	290	290	180	180	190	210	210	210	220	190	180	190
Calcium (DIS)	mg/L		46	46	46	57	58	89	84	74	70	9	11	65	68	62	87	82	77	75	38	41	36
Chloride	mg/L		<1	<1	<1	1	1	1	1	1	1	3	5	<1	<1	<1	1	1	<1	<1	<1	<1	<1
Fluoride	mg/L	4	<0.1	<0.1	<0.1	0.8	0.8	0.4	0.4	0.3	0.3	1.4	1.4	0.4	0.4	0.4	0.6	0.6	0.8	0.8	0.2	0.2	0.2
Hardness as CaCO3	mg/L		207	206	207	283	291	419	398	340	320	85	93	294	308	282	441	428	394	386	202	206	190
Magnesium (DIS)	mg/L		22	22	22	34	36	48	46	38	35	15	16	32	33	31	54	54	49	48	26	25	25
Potassium (DIS)	mg/L		1	1	1	5	5	4	4	2	2	8	8	2	2	2	3	3	5	5	<1	<1	<1
Sodium (DIS)	mg/L		1	1	1	3	3	5	5	4	4	99	95	3	3	3	13	13	11	11	2	2	2
Sulfate	mg/L		8	9	9	55	51	149	151	163	176	14	13	100	101	91	244	227	204	190	15	15	16
Nutrients																							
Nitrate + Nitrite as N	mg/L	10	0.33	0.3	0.3	0.01	0.01	0.02	0.03	0.02	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.25	0.28	0.28
Metals - Trace Constituents																							
Aluminum (DIS)	mg/L		<0.009	<0.009	<0.009	0.011	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009
Antimony (DIS)	mg/L	0.006	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0009	0.0008	0.0008	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (DIS)	mg/L	0.01	<0.001	<0.001	<0.001	0.005	0.005	0.006	0.006	0.06	0.063	0.002	0.002	0.013	0.013	0.012	0.086	0.085	0.059	0.063	<0.001	<0.001	<0.001
Barium (DIS)	mg/L	1	0.188	0.201	0.196	0.033	0.034	0.012	0.011	0.041	0.048	0.236	0.233	0.037	0.037	0.037	0.012	0.012	0.036	0.033	0.092	0.086	0.087
Beryllium (DIS)	mg/L	0.004	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Cadmium (DIS)	mg/L	0.005	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Chromium (DIS)	mg/L	0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt (DIS)	mg/L		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper (DIS)	mg/L	1.3	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Iron (DIS)	mg/L		<0.02	<0.02	0.03 B	3.28	3.36	5.9	5.46	11	10.5	0.83	1.14	0.87	0.89	0.88	2.18	2.13	0.39	0.41	<0.02	<0.02	<0.02
Lead (DIS)	mg/L	0.015	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.0004	<0.0003	0.0077	0.0076	0.0079	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Manganese (DIS)	mg/L		<0.005	<0.005	<0.005	0.059	0.061	0.047	0.045	0.142	0.137	0.072	0.09	0.1	0.099	0.096	0.04	0.032	0.143	0.109	<0.005	<0.005	<0.005
Mercury (DIS)	ug/L		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Molybdenum (DIS)	mg/L		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Nickel (DIS)	mg/L	0.1	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.005 D	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium (DIS)	mg/L	0.05	0.0002	0.0002	0.0003	<0.0002	<0.0002	0.0008	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.001	0.0011	0.0011
Silver (DIS)	mg/L	0.1	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Strontium (DIS)	mg/L	4	0.0677	0.0713	0.0707	0.0846	0.0865	0.331	0.313	9.62	9.88 L	0.349	0.382	0.745	0.755	0.699 L	9.29	9.08 L	13.2	12.6 L	0.123	0.116	0.115
Thallium (DIS)	mg/L	0.002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0005	0.0005	<0.0002	<0.0002	0.0026	0.0026	0.0025	0.0009	0.0008	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Uranium (DIS)	mg/L	0.03	0.0005	0.0005	0.0005	0.0003	0.0003	0.0013	0.0011	0.0012	0.0011	<0.0002	<0.0002	0.001	0.001	0.001	0.0014	0.0014	0.0009	0.0008	0.0011	0.001	0.001
Zinc (DIS)	mg/L	2	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.005	0.007	0.148	0.154	<0.002	<0.002	0.003	<0.002	<0.002	<0.002	0.003	<0.002	0.013	<0.002

Definitions:

J = Field Duplicate sample exceeded QA/QC comparison contr
U = Field Blank sample exceeded QA/QC comparison control l
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D = Reporting limit increased due to sample matrix interference
L = The lowest available reporting limit was used per method u
NM = Not measured
NF-ICE = Not flowing; ice on ground
NM-ICE = Not measured; ice prohibitive
NF-DRY = Not flowing; Dry ground

Analyte concentration exceeds the standard for:

Human Health Standard Groundwate

Source:

Montana DEQ-7 May 2017
Montana DEQ-7 June 2019

Station Name	Reporting Units	Human Health Standard Groundwater	SC15-185	SC15-185	SC15-185	SC15-194	SC15-194	SC15-194	SC15-198	SC15-198	SC15-198
Sample Date			6/18/19 10:40	9/23/19 12:50	11/13/19 12:40	6/18/19 11:50	9/23/19 11:50	11/13/19 14:20	6/18/19 09:00	9/23/19 13:40	11/13/19 13:15
Sample ID			BBC-1906-205	BBC-1909-232	BBC-1911-220	BBC-1906-206	BBC-1909-231	BBC-1911-224	BBC-1906-204	BBC-1909-233	BBC-1911-223
Lab Name			Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
Remarks											
Lab Sample ID			H19060528-006	H19090608-011	H19110302-008	H19060528-007	H19090608-010	H19110302-012	H19060528-005	H19090608-012	H19110302-011
StationTypeCode			MW	MW	MW	MW	MW	MW	MW	MW	MW
SampleMatrix			Water	Water	Water	Water	Water	Water	Water	Water	Water
Field Parameters											
Depth To Water	Feet		24.2	29.59	31.02	18.22	19.57	19.98	34.64	40.9	42.34
Dissolved Oxygen	mg/L		4.5	4.64	2.52	0.42	0.46	1.26	6.94	7.97	1.34
EH	Millivolts		479.88	253.378	343.93	240.79	168.057	197.23	464.96	255.976	379.4
Field pH	s.u.		7.84	7.94	7.82	7.76	7.84	7.77	7.71	7.83	7.68
Field Specific Conductivity	umhos/cm		395	395	394	379	382	384	421	420	423
Water Temperature	Deg C		6.6	6.6	5.7	7.7	7.9	6.3	6.7	7.2	5.9
Physical Parameters											
Total Dissolved Solids	mg/L		217	227	213	207	225	214	231	236	229
Total Suspended Solids	mg/L		<10	<10	15 J	<10	<10	<10	<10	<10	20 J
Major Constituents - Commons Ions											
Alkalinity as CaCO3	mg/L		200	210	210	160	180	180	210	230	210
Calcium (DIS)	mg/L		47	44	44	44	40	40	48	46	46
Chloride	mg/L		<1	<1	<1	<1	<1	<1	2	2	2
Fluoride	mg/L	4	0.1	0.1	0.1	0.3	0.3	0.3	0.1	0.1	0.1
Hardness as CaCO3	mg/L		208	197	196	211	193	194	227	216	216
Magnesium (DIS)	mg/L		22	21	21	25	23	23	26	25	24
Potassium (DIS)	mg/L		2	2	2	<1	<1	<1	<1	<1	<1
Sodium (DIS)	mg/L		4	4	4	2	2	2	3	3	3
Sulfate	mg/L		12	10	12	32	29	32	8	6	6
Nutrients											
Nitrate + Nitrite as N	mg/L	10	0.25	0.24	0.25	<0.01	<0.01	<0.01	0.56	0.6	0.62
Metals - Trace Constituents											
Aluminum (DIS)	mg/L		<0.009	0.011	0.016	<0.009	<0.009	<0.009	<0.009	<0.009	0.075
Antimony (DIS)	mg/L	0.006	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (DIS)	mg/L	0.01	<0.001	<0.001	<0.001	<0.001	0.001	0.001	<0.001	<0.001	<0.001
Barium (DIS)	mg/L	1	0.065	0.069	0.065	0.034	0.035	0.034	0.307	0.365	0.373
Beryllium (DIS)	mg/L	0.004	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Cadmium (DIS)	mg/L	0.005	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Chromium (DIS)	mg/L	0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt (DIS)	mg/L		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper (DIS)	mg/L	1.3	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Iron (DIS)	mg/L		<0.02	<0.02	0.03 B	0.03	0.03	0.05 B	<0.02	<0.02	0.03 B
Lead (DIS)	mg/L	0.015	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Manganese (DIS)	mg/L		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Mercury (DIS)	ug/L		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.005
Molybdenum (DIS)	mg/L		0.004	0.004	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Nickel (DIS)	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium (DIS)	mg/L	0.05	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	0.0002	0.0002
Silver (DIS)	mg/L	0.1	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Strontium (DIS)	mg/L	4	0.234	0.244	0.237	0.0678	0.0702	0.0703	0.098	0.101	0.0951
Thallium (DIS)	mg/L	0.002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Uranium (DIS)	mg/L	0.03	0.003	0.0031	0.0031	0.0008	0.0008	0.0008	0.0007	0.0007	0.0006
Zinc (DIS)	mg/L	2	<0.002	<0.002	0.002	<0.002	<0.002	<0.002	0.006	<0.002	<0.002

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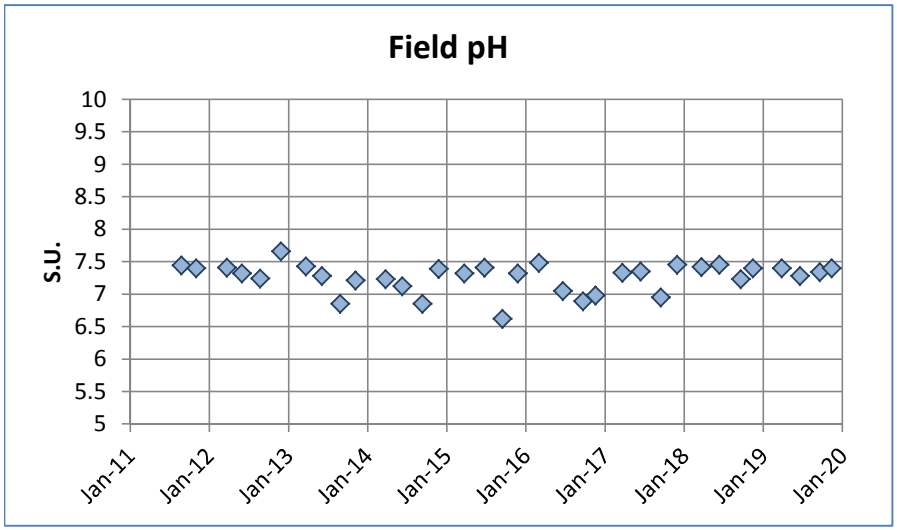
Analyte concentration exceeds the standard for:

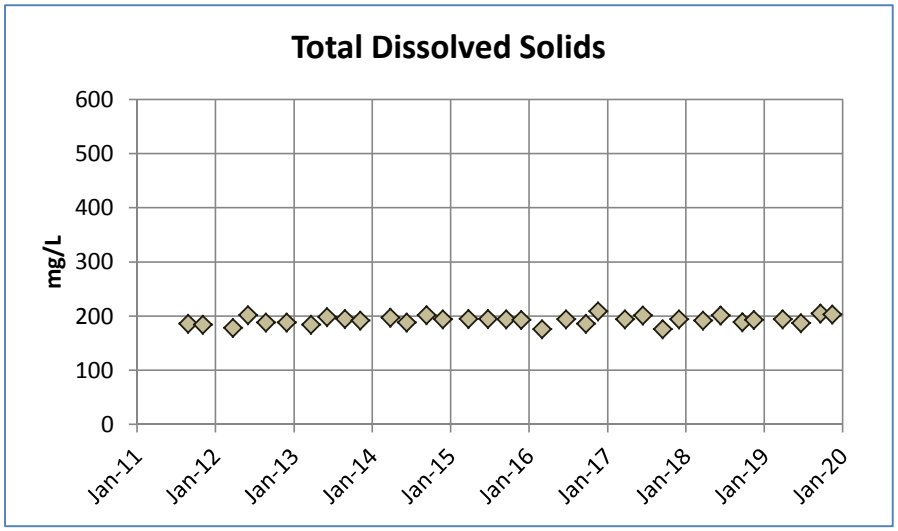
Human Health Standard Groundwate

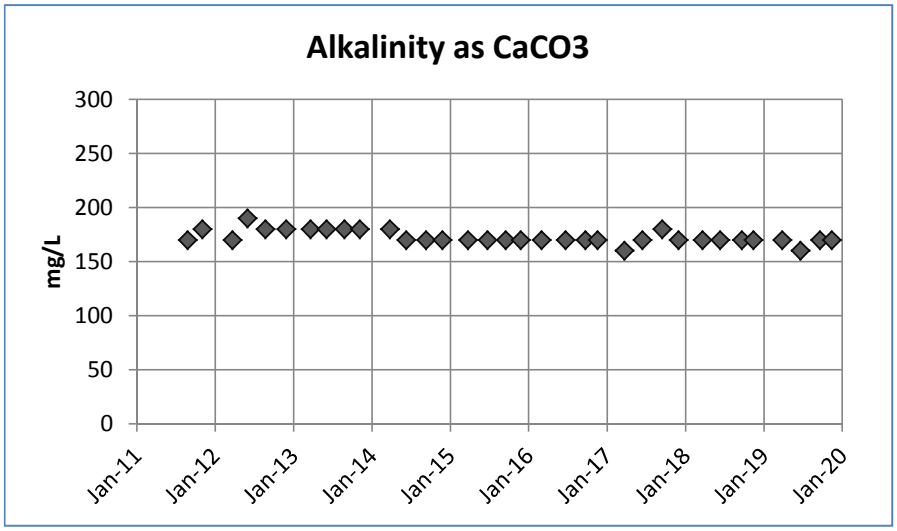
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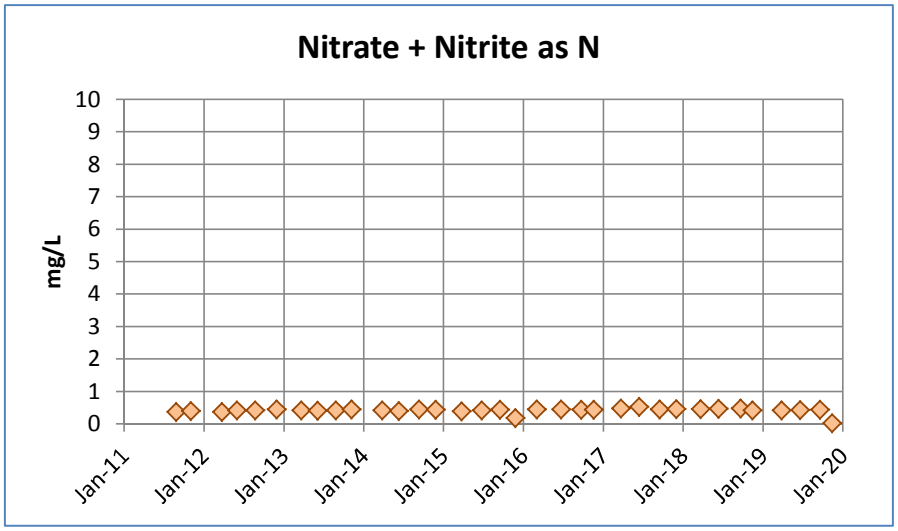
Montana DEQ-7 May 2017
Montana DEQ-7 June 2019

MW-1A





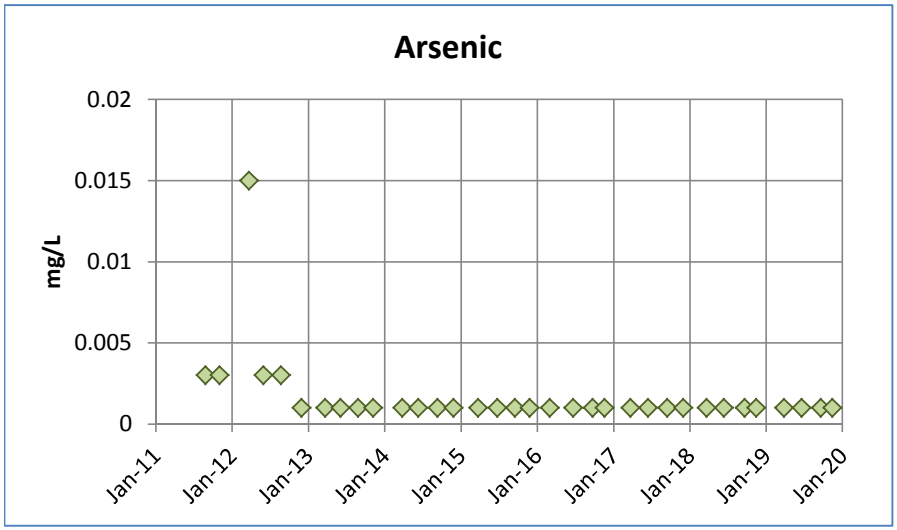


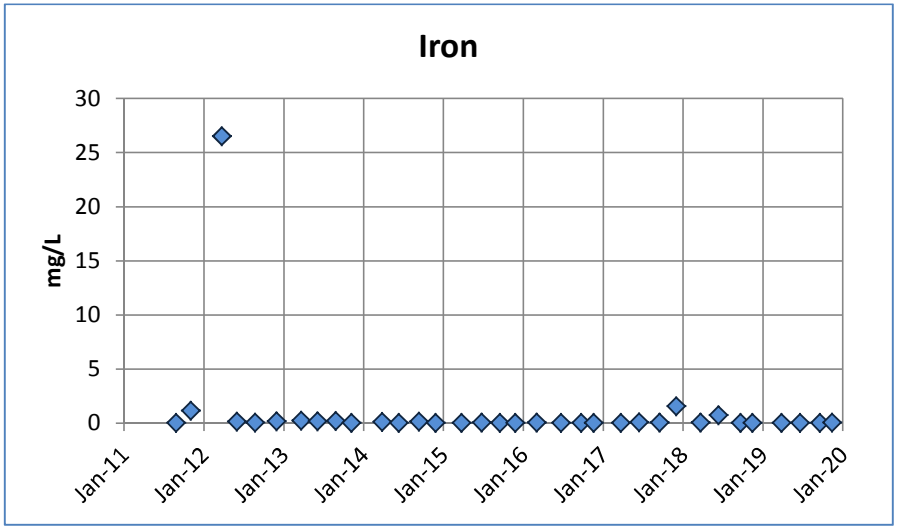


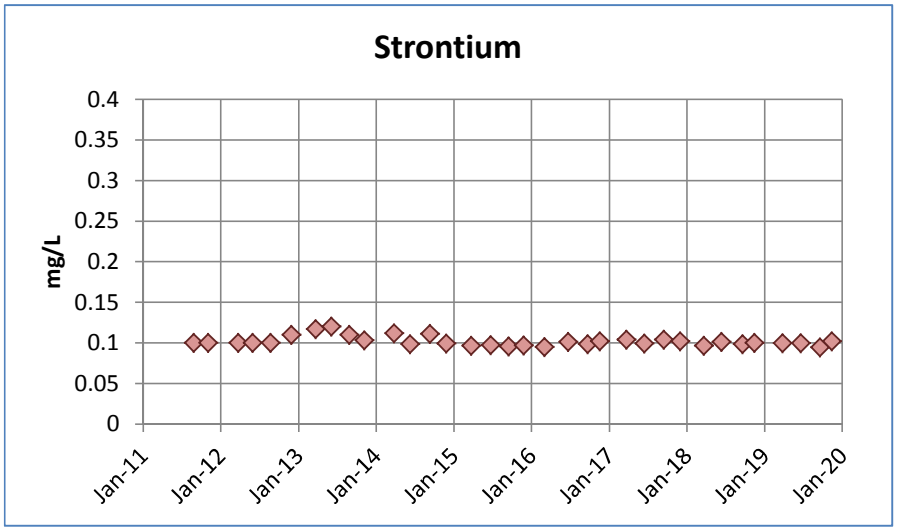
Hydrometrics, Inc.
Consulting Scientists and Engineers

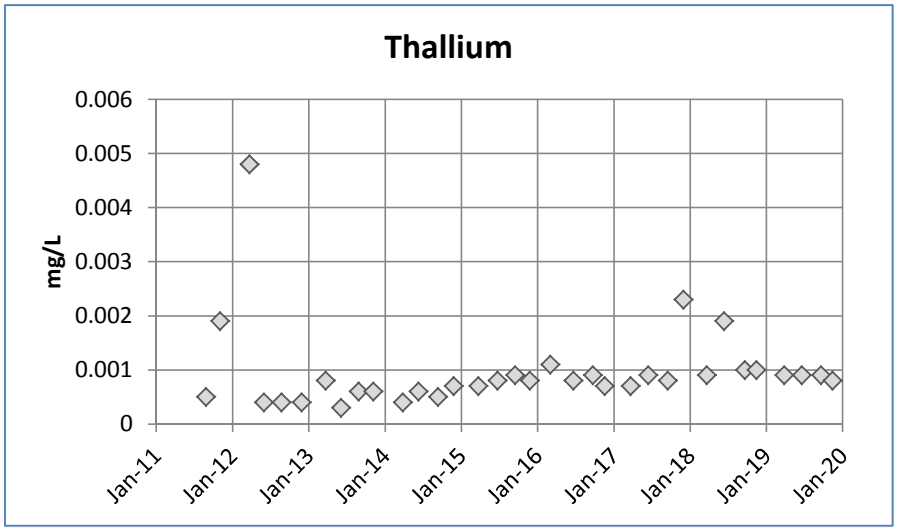
MW-1A Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-1A





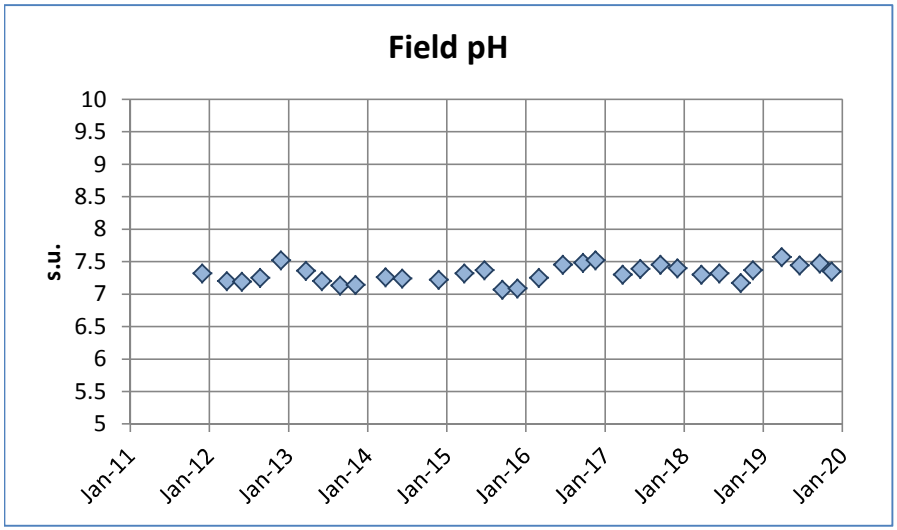


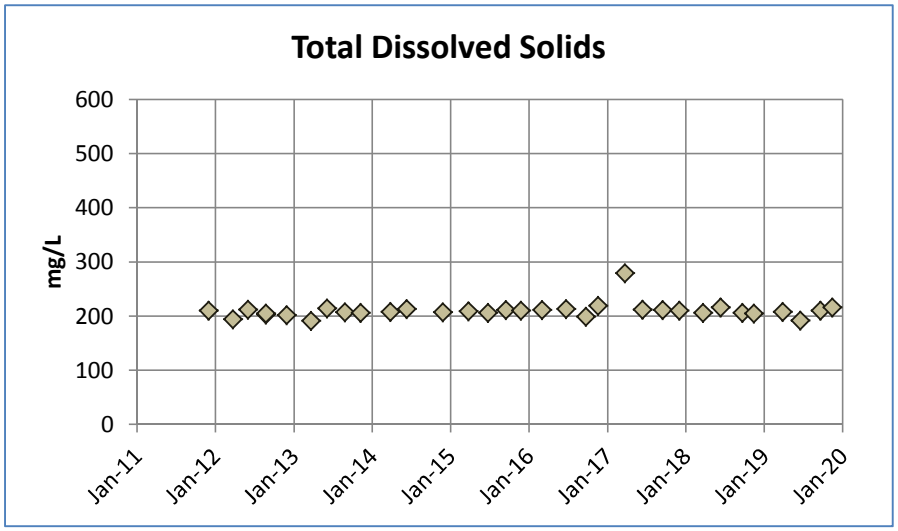


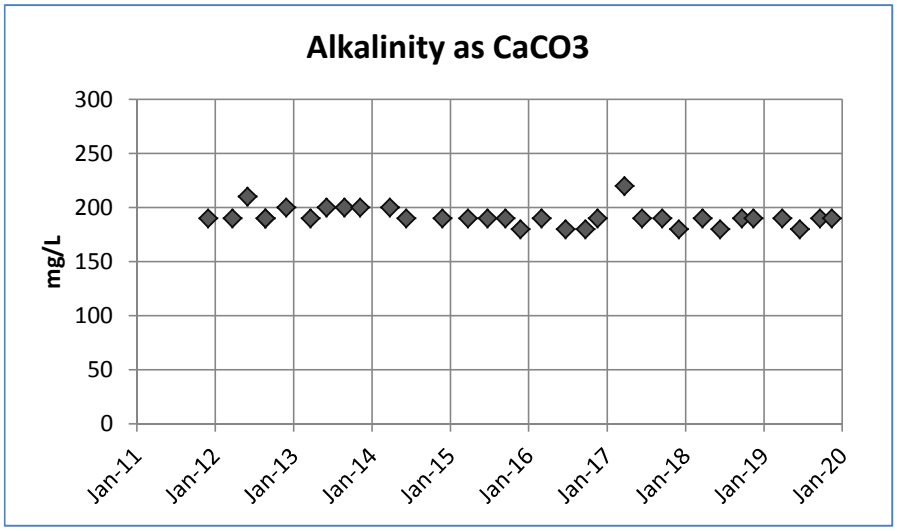
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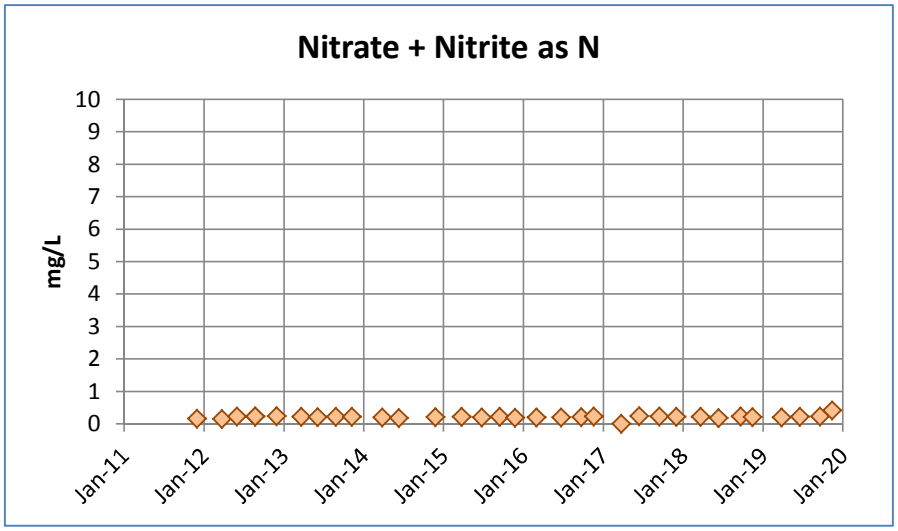
MW-1A Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-2A





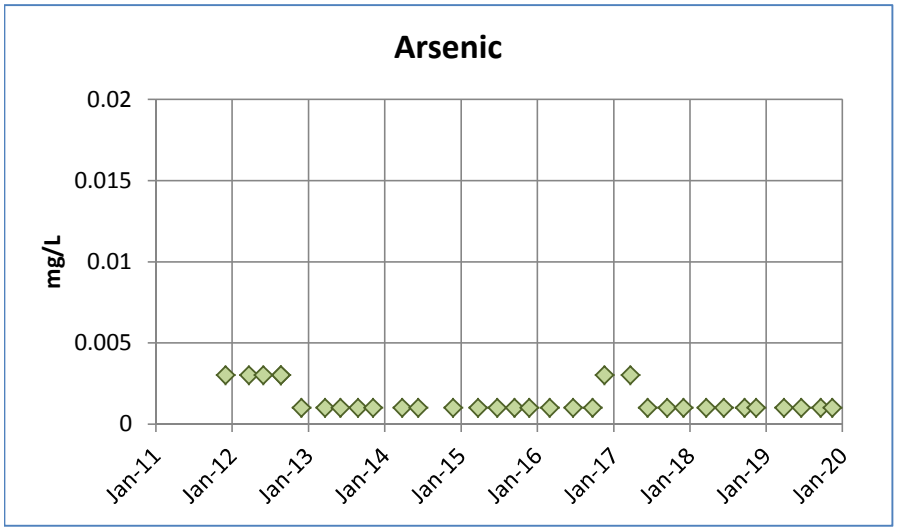


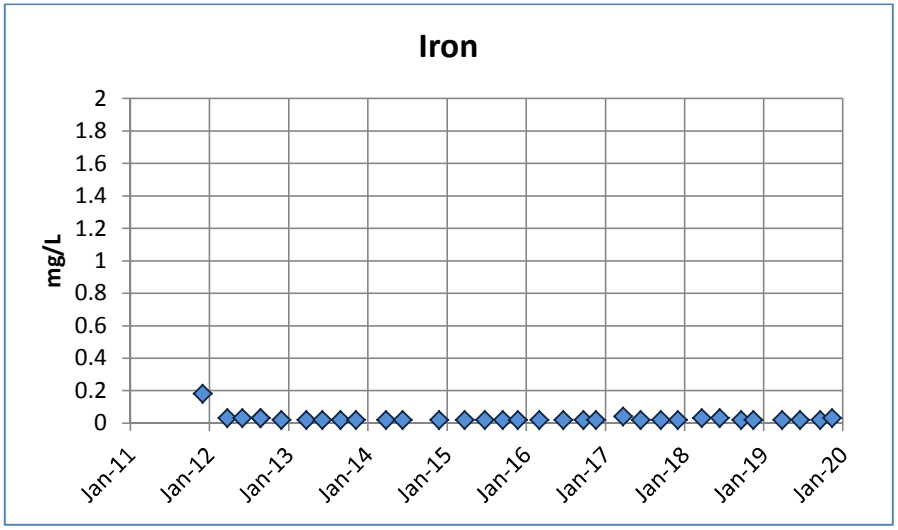


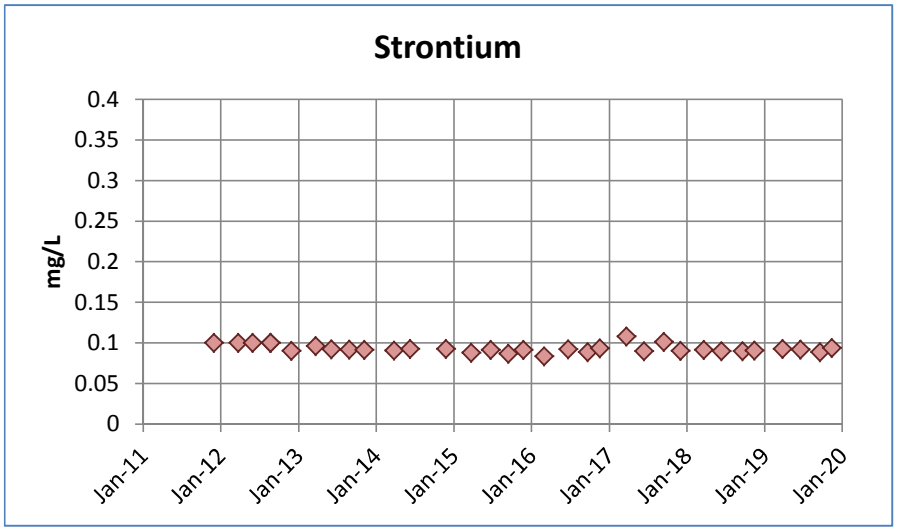
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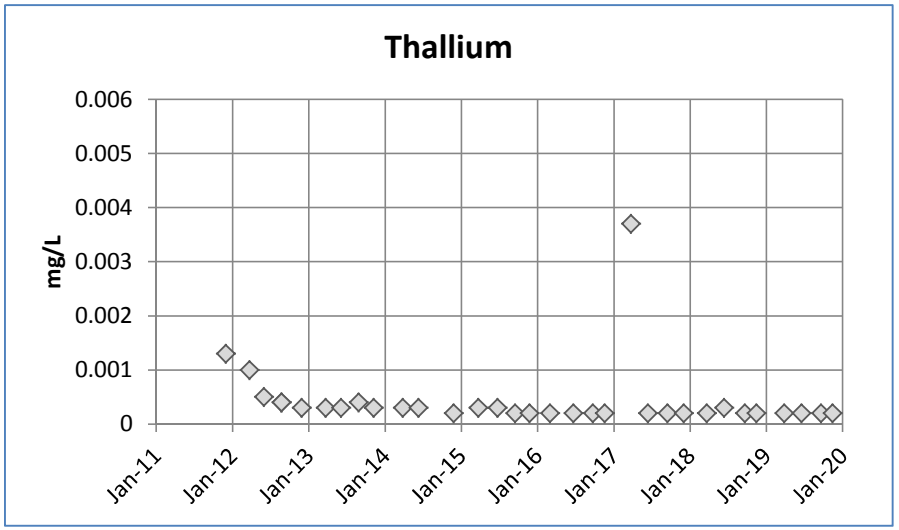
MW-2A Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-2A





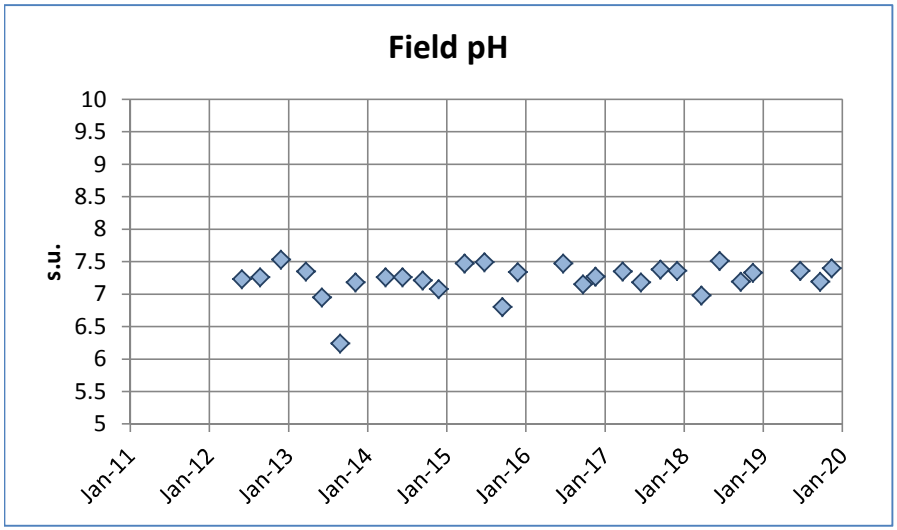


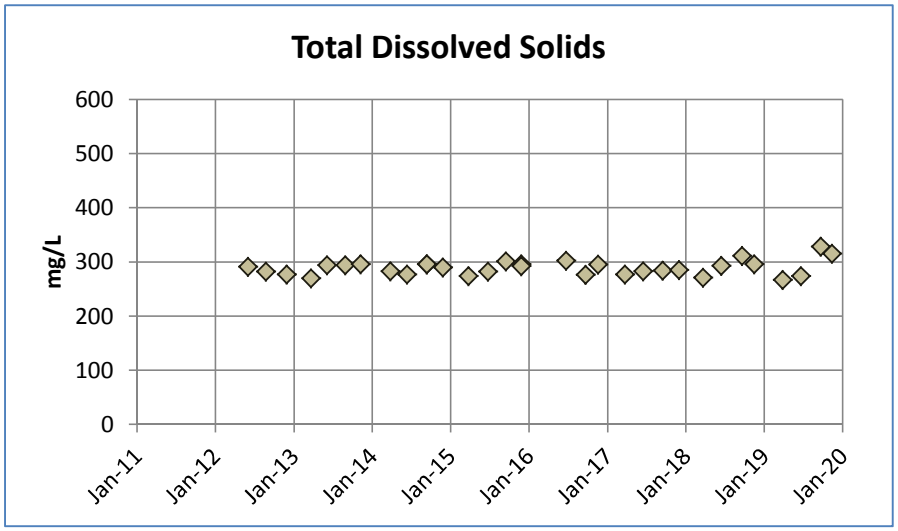


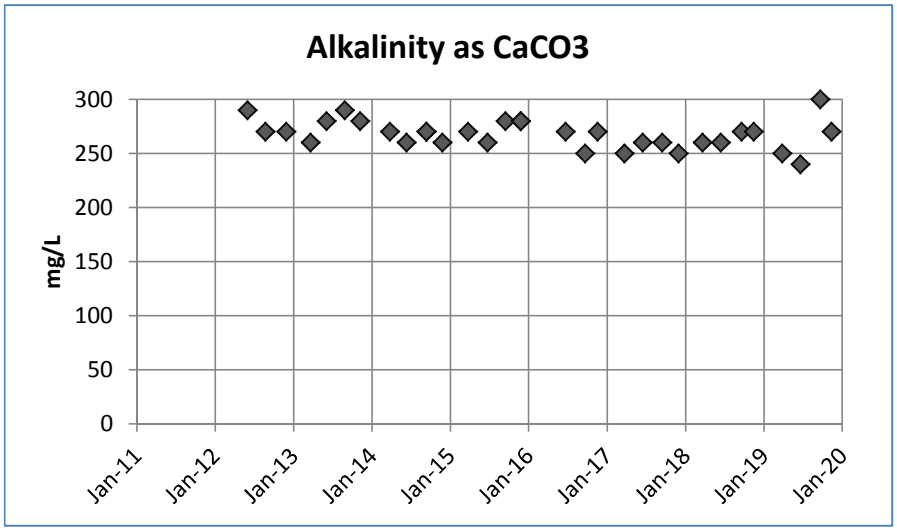
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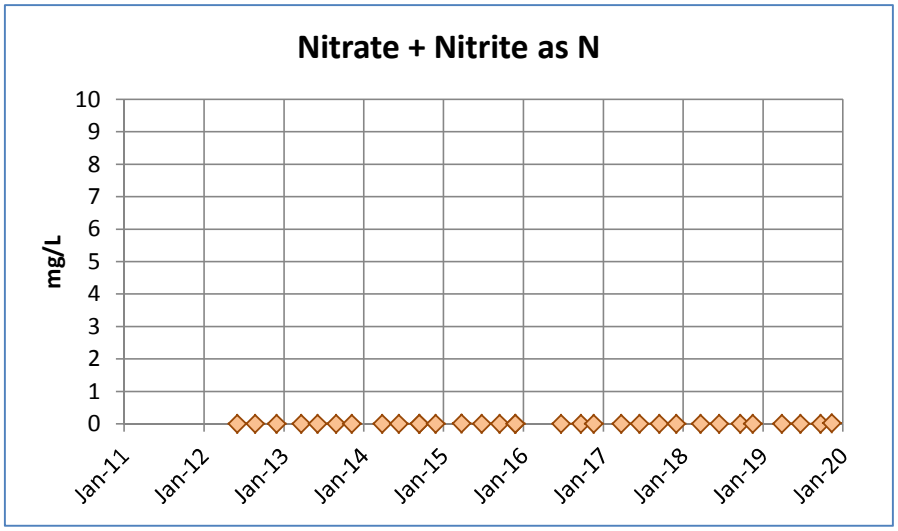
MW-2A Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-4A





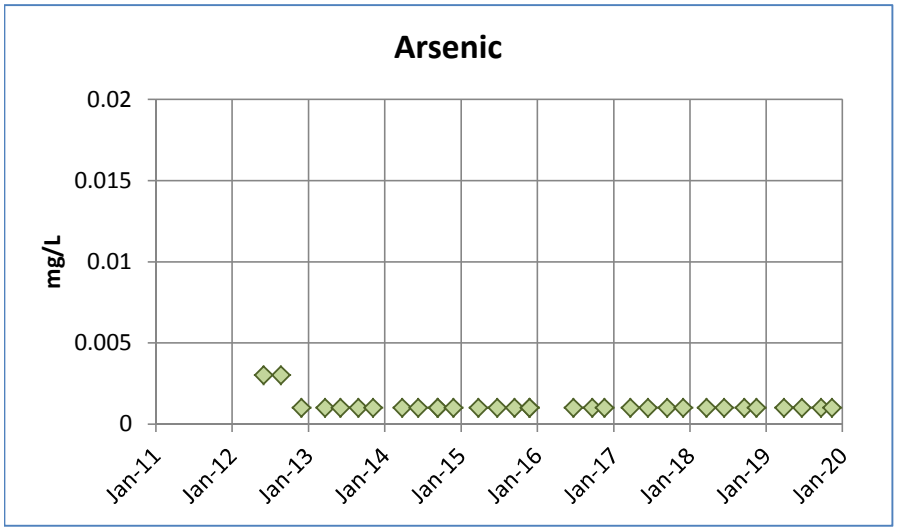


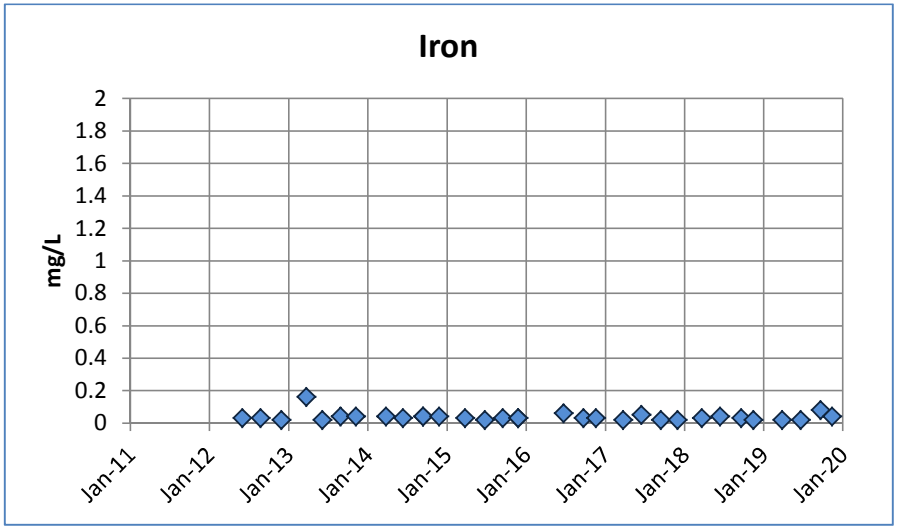


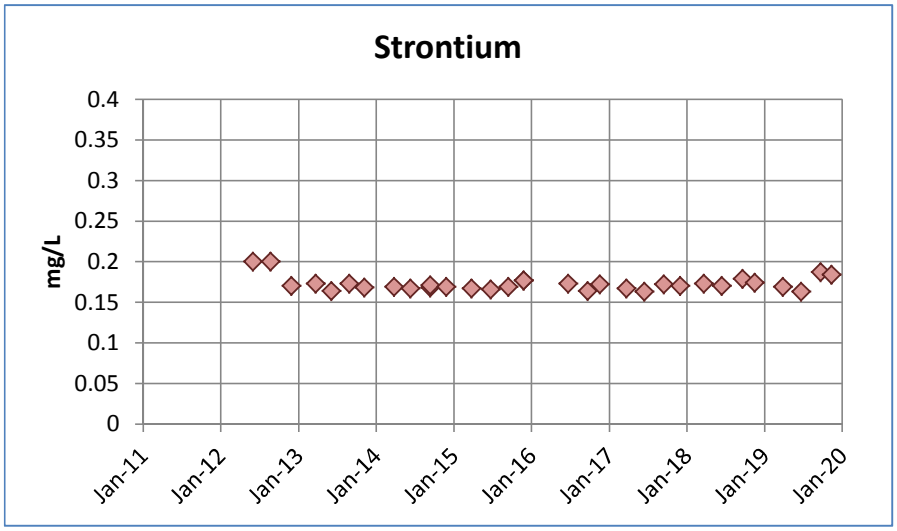
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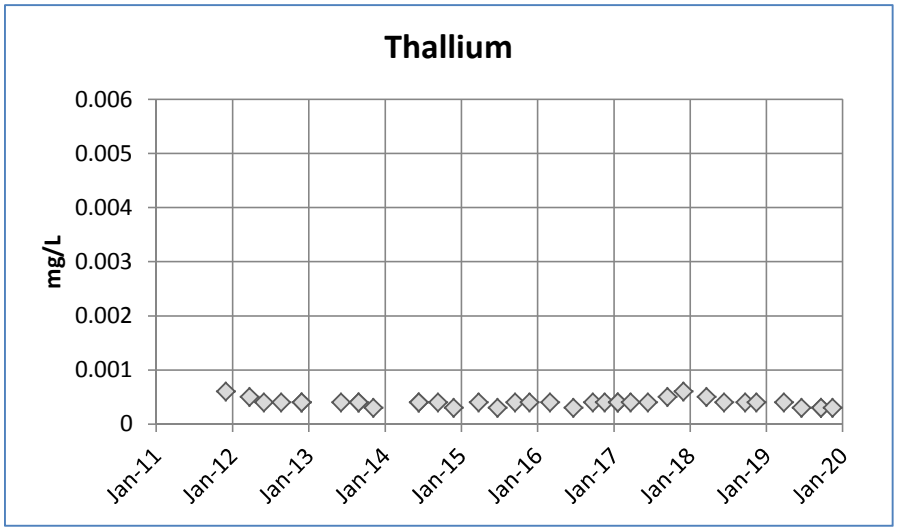
MW-4A Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-4A





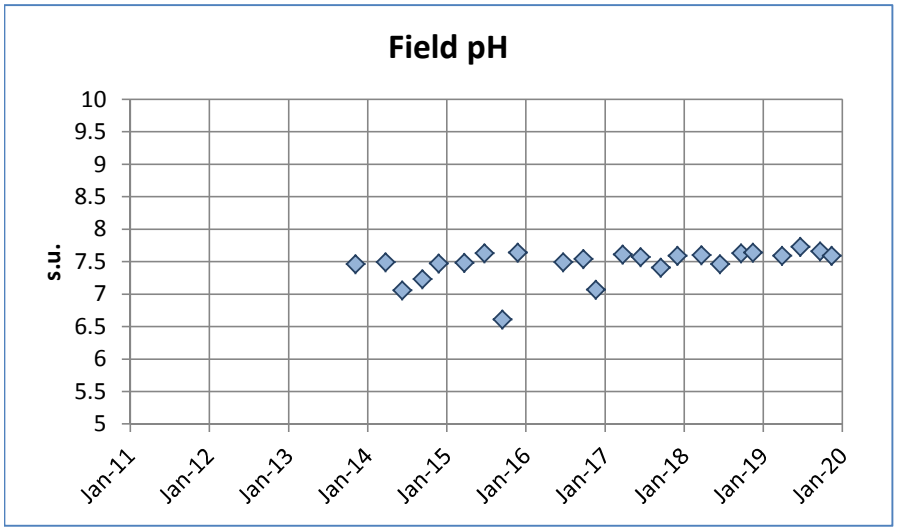


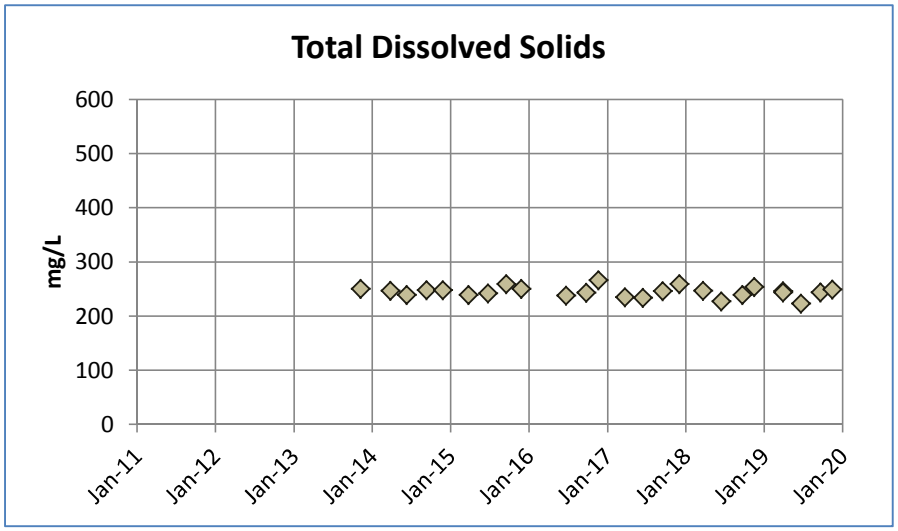


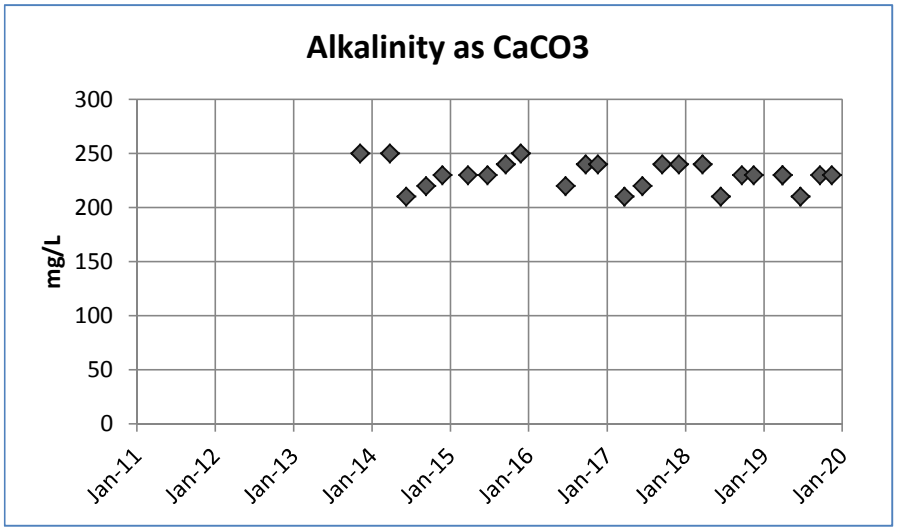
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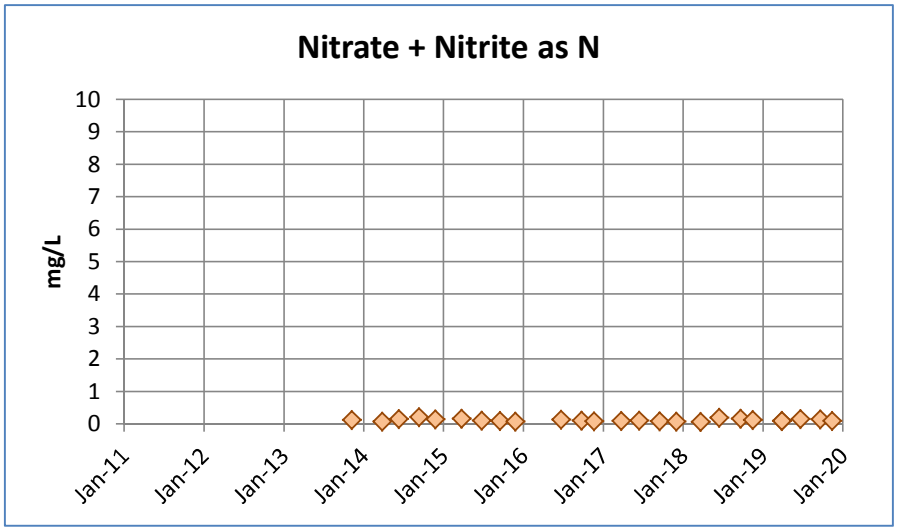
MW-4A Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-6A





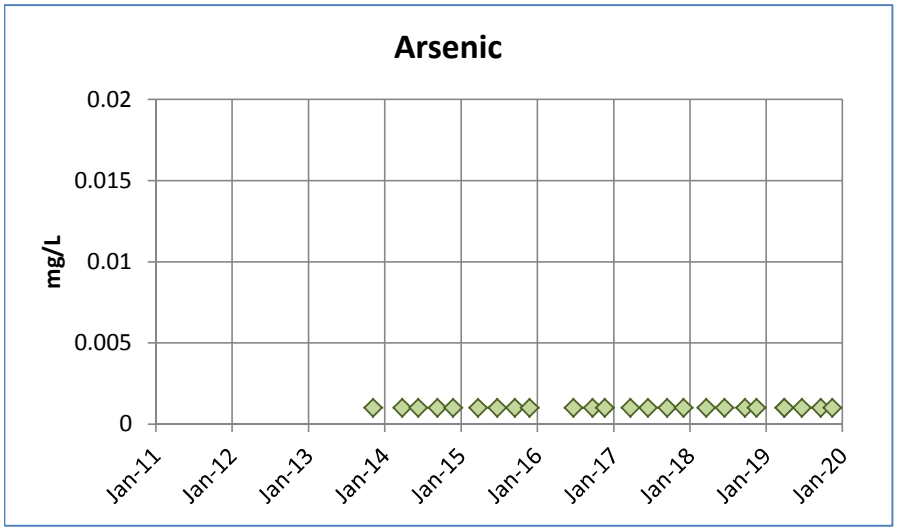


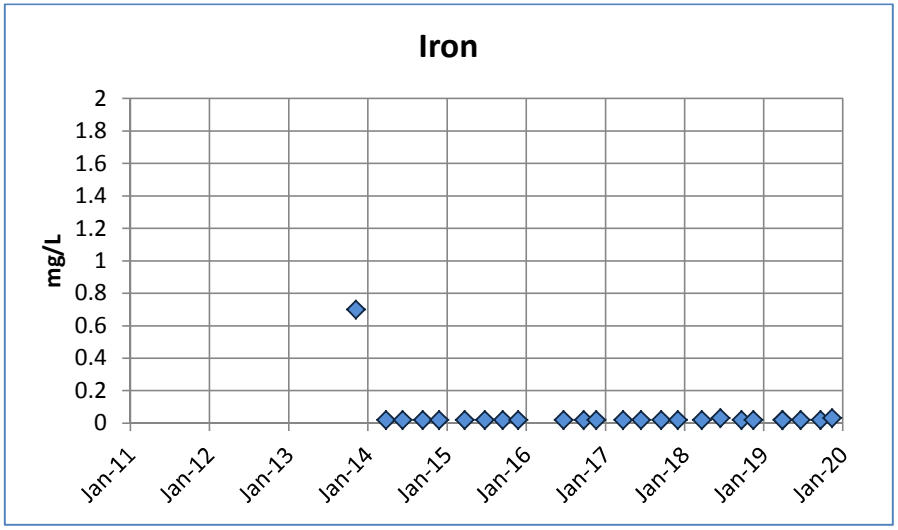


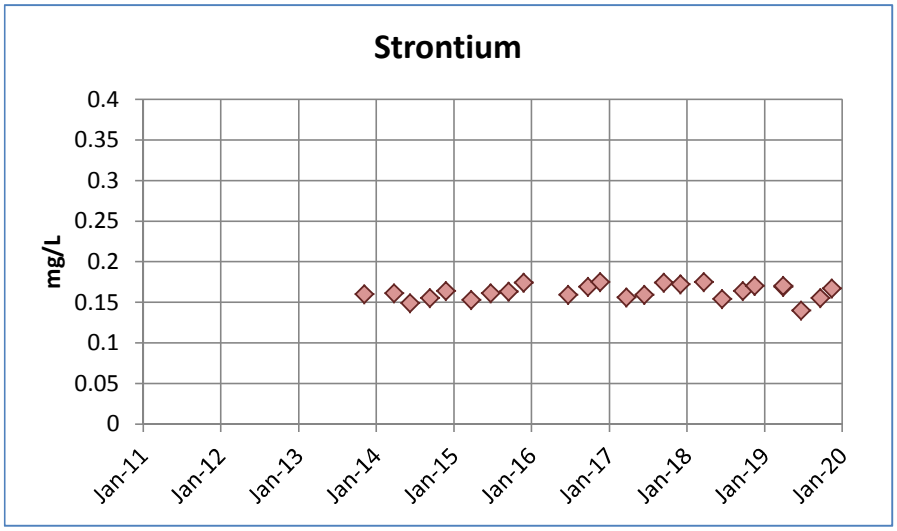
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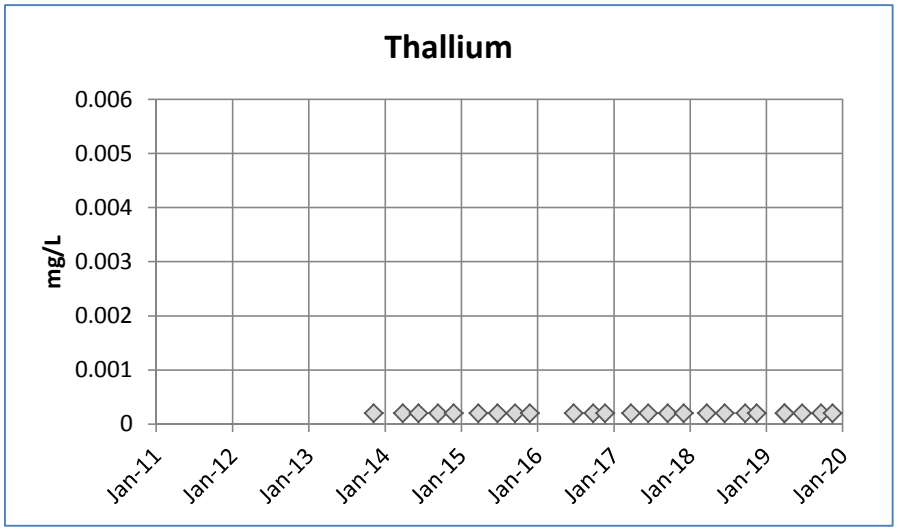
MW-6A Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-6A





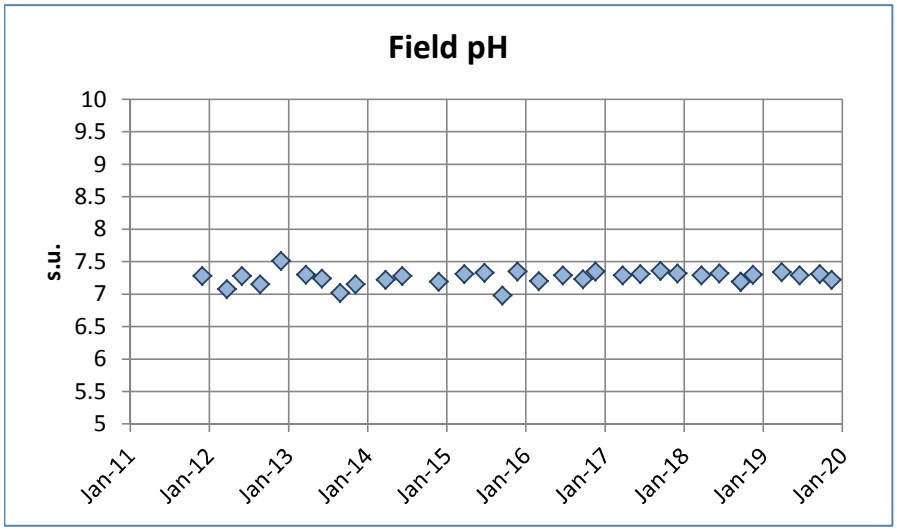


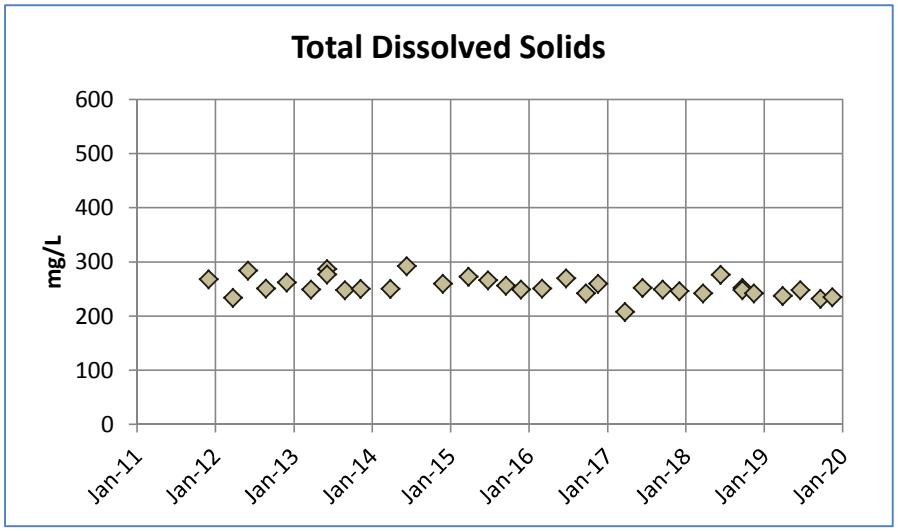


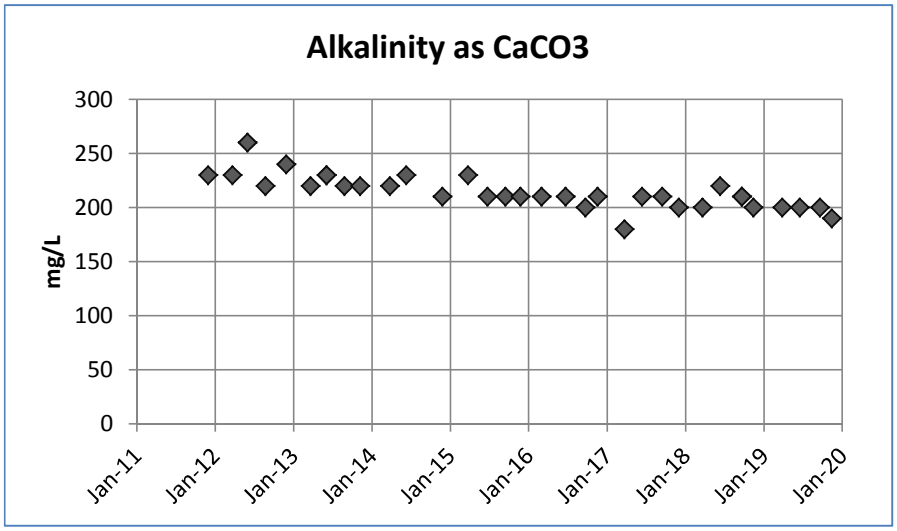
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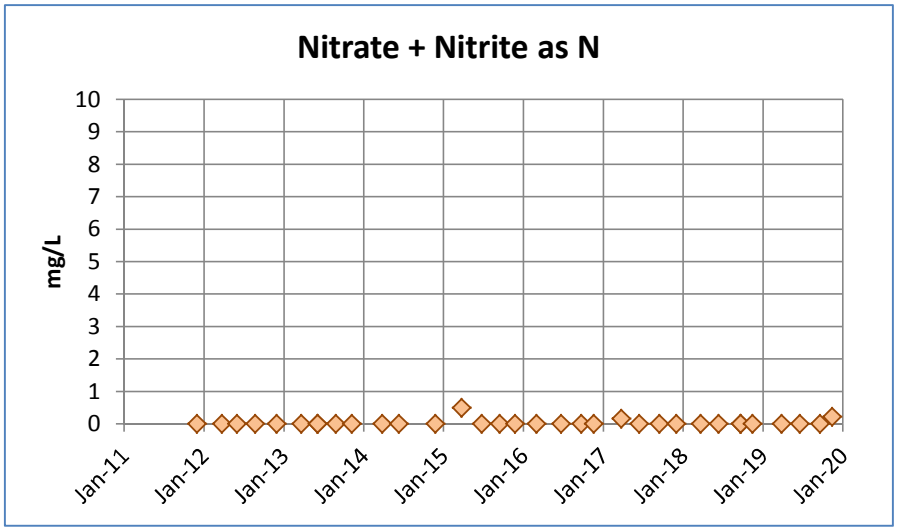
MW-6A Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-2B





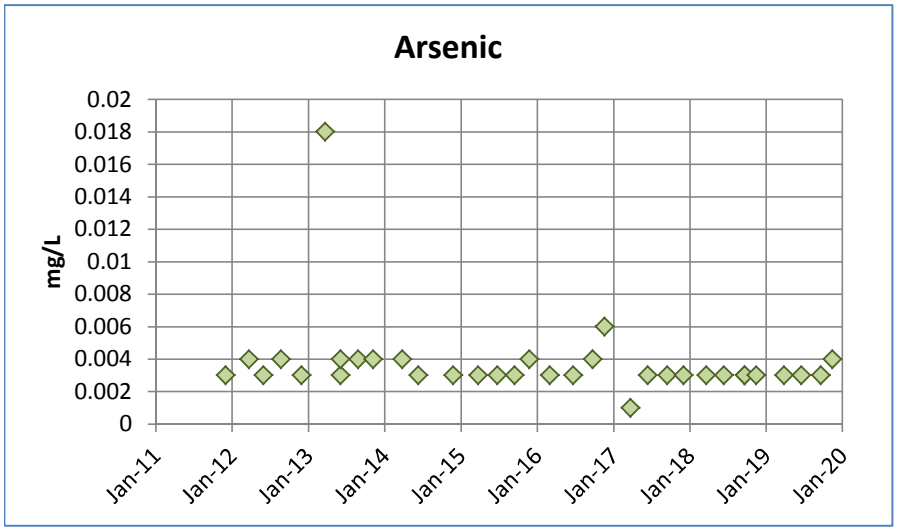


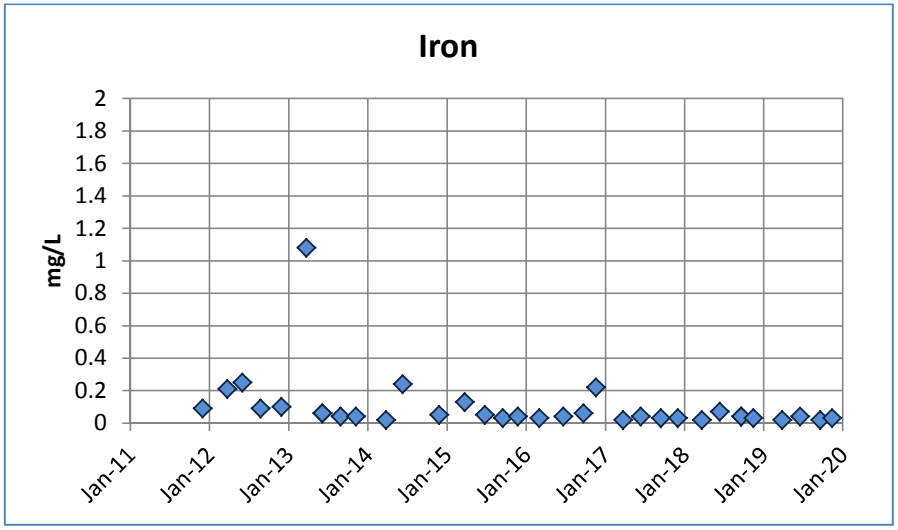


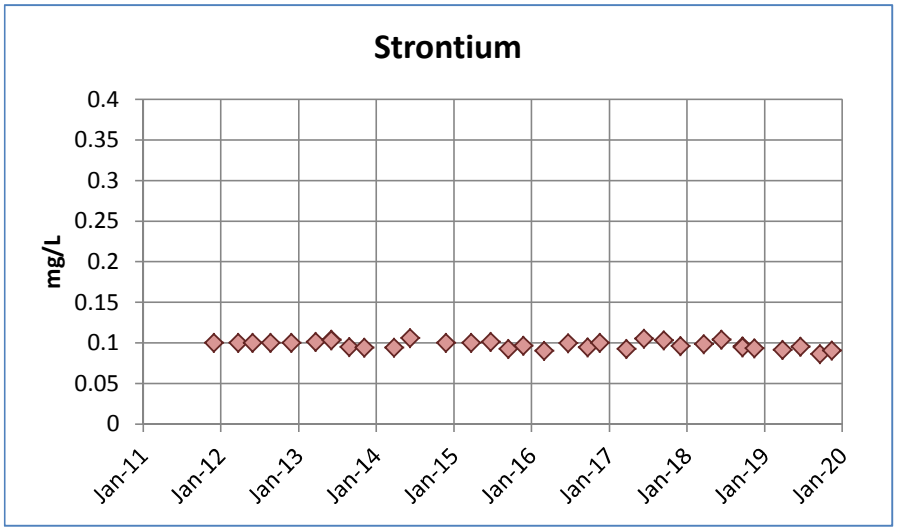
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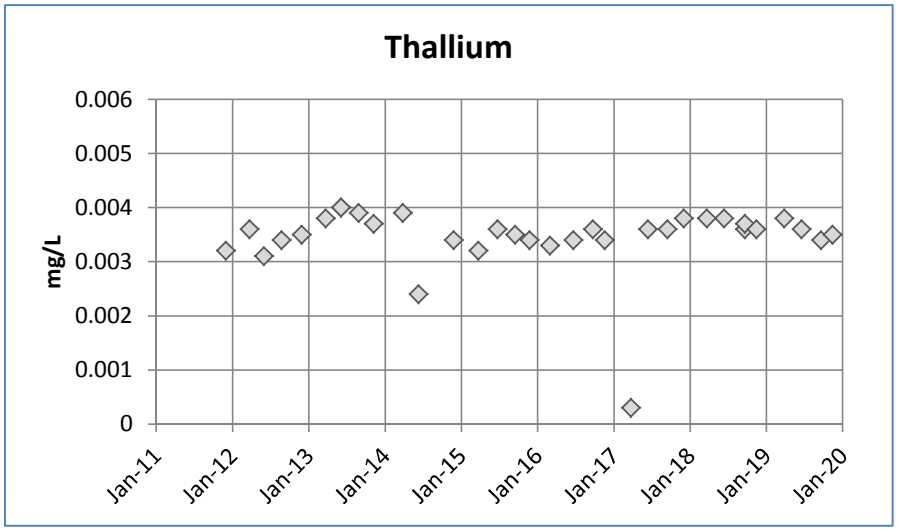
MW-2B Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-2B





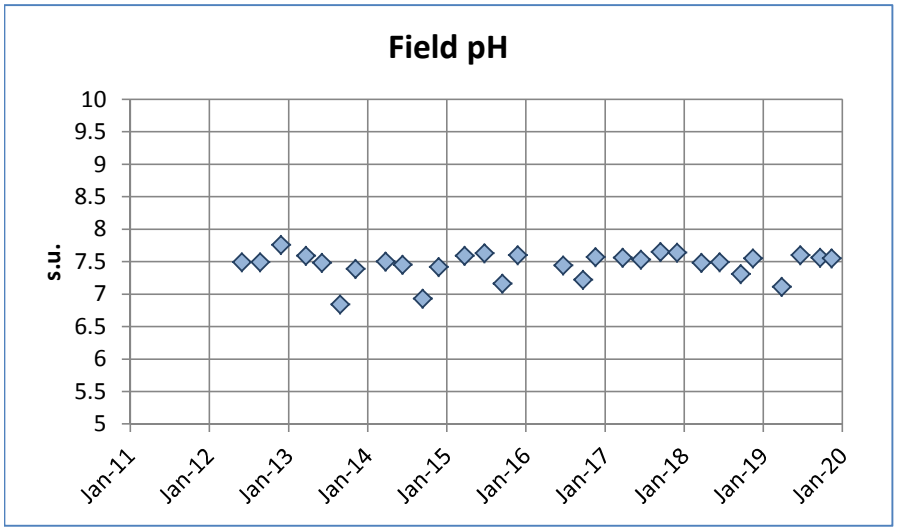


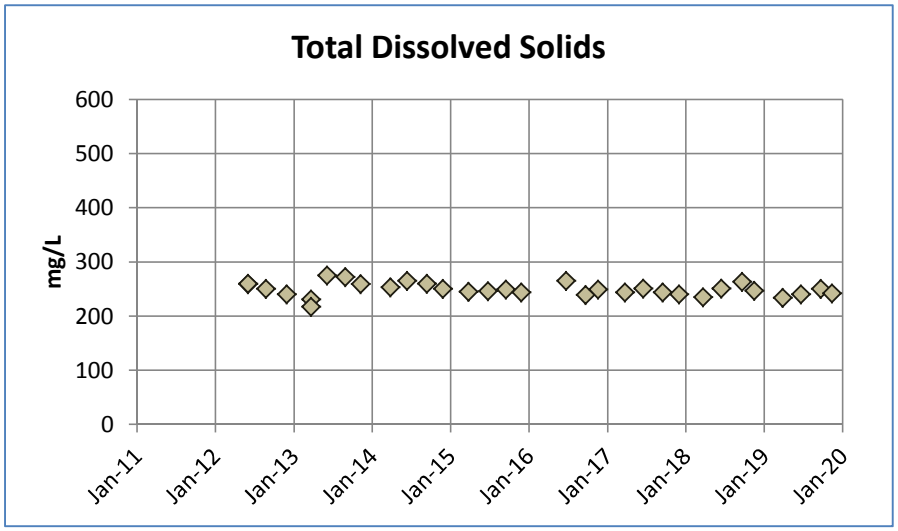


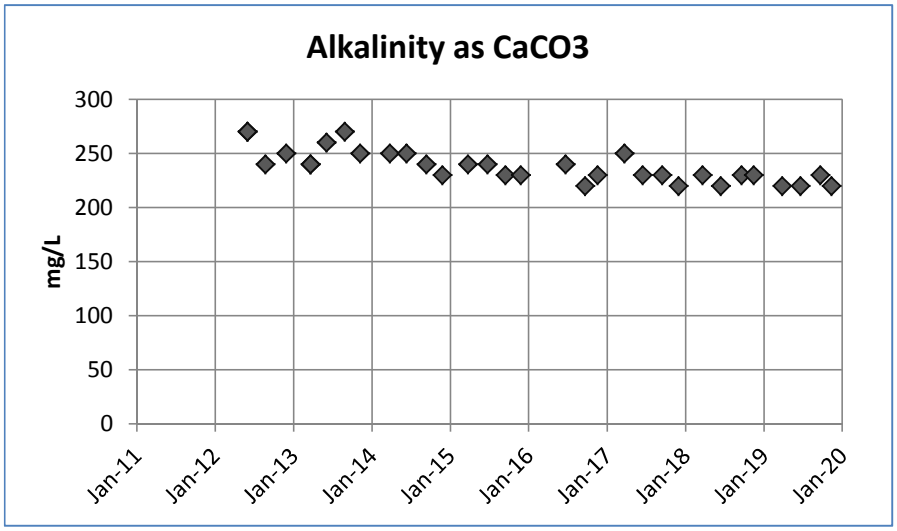
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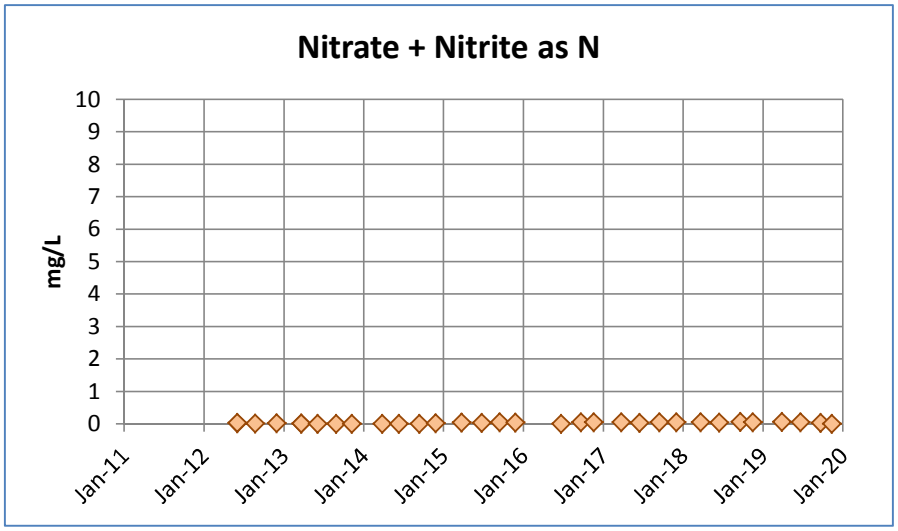
MW-2B Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-4B





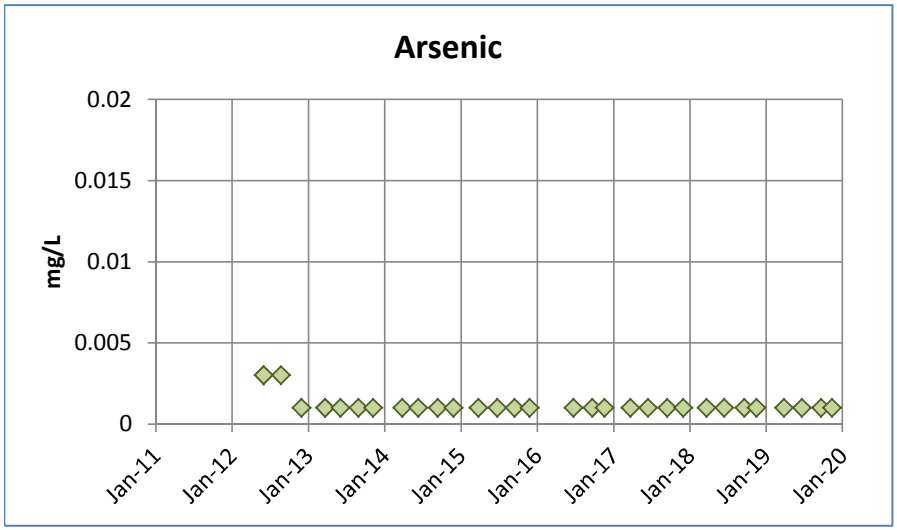


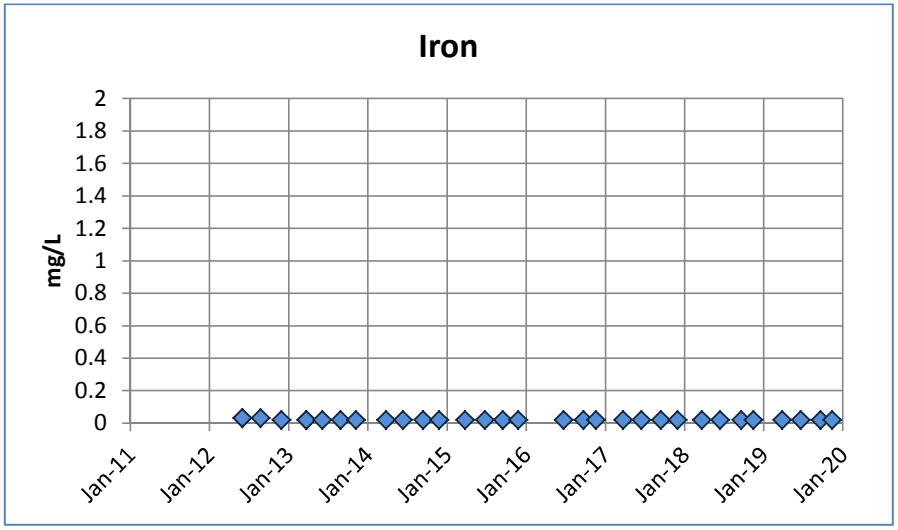


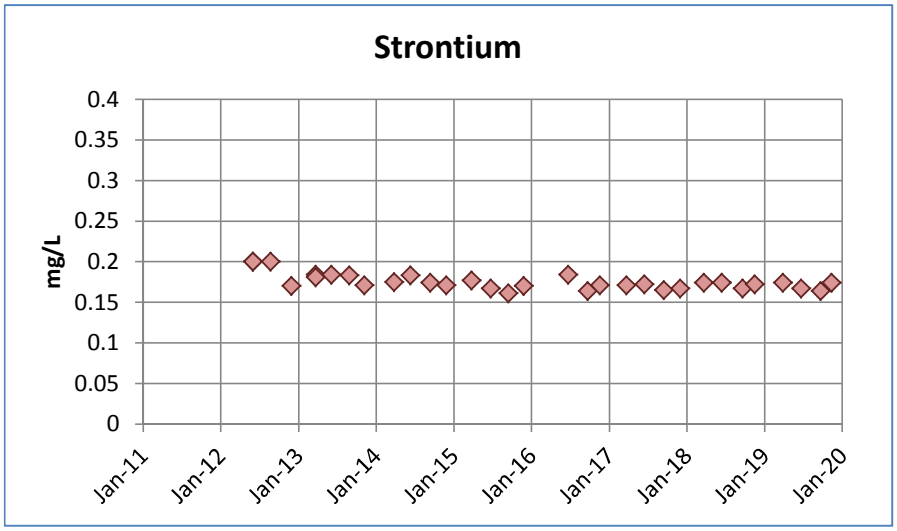
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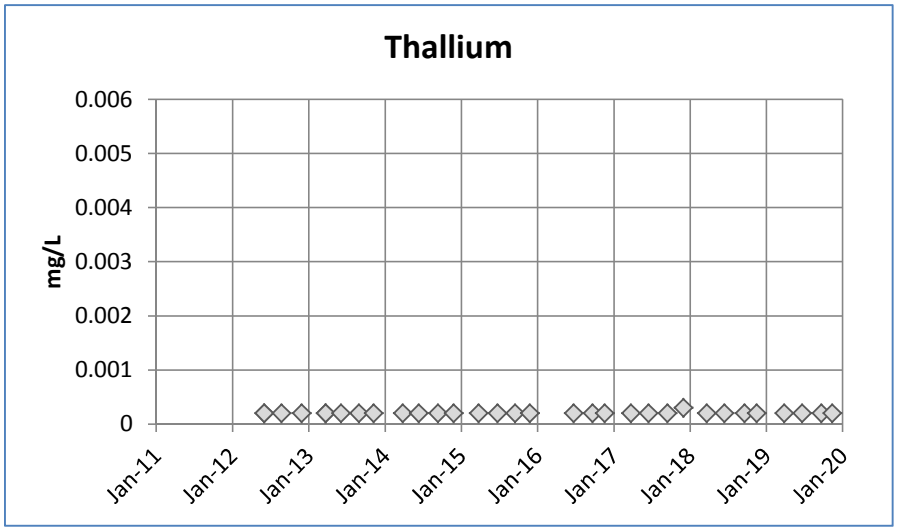
MW-4B Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-4B





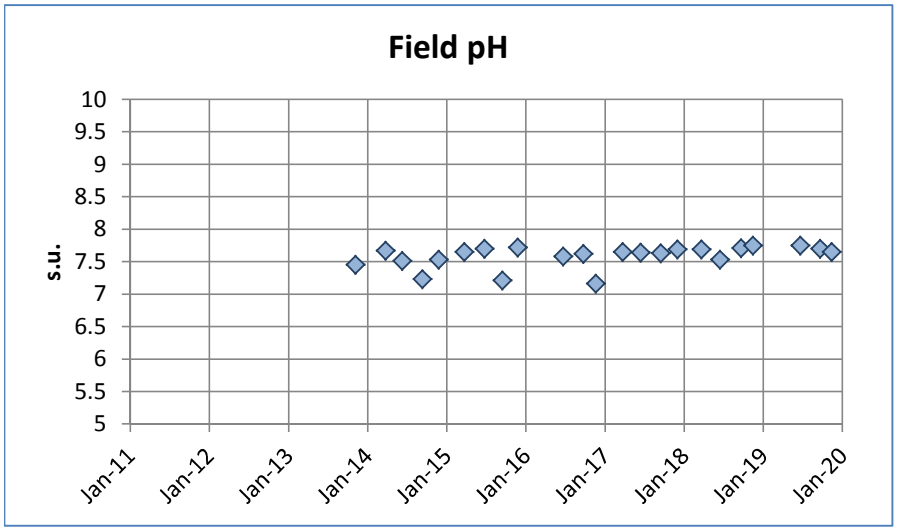


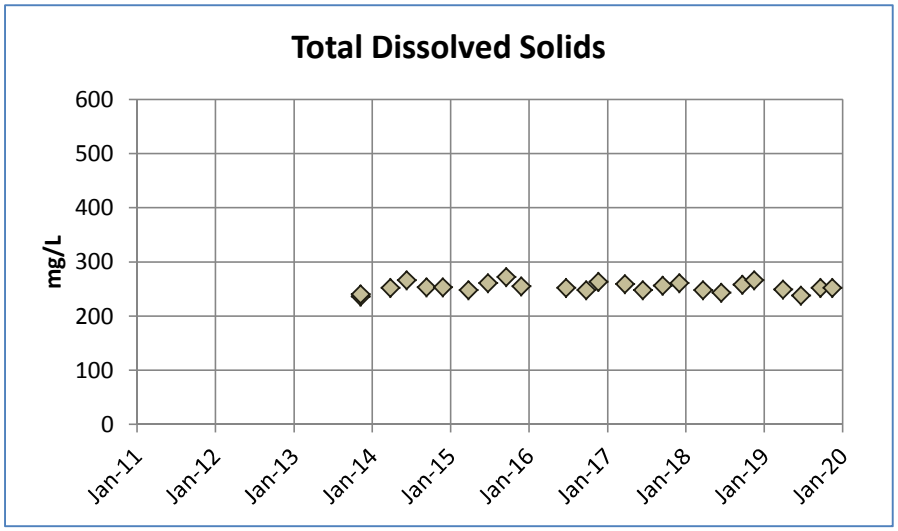


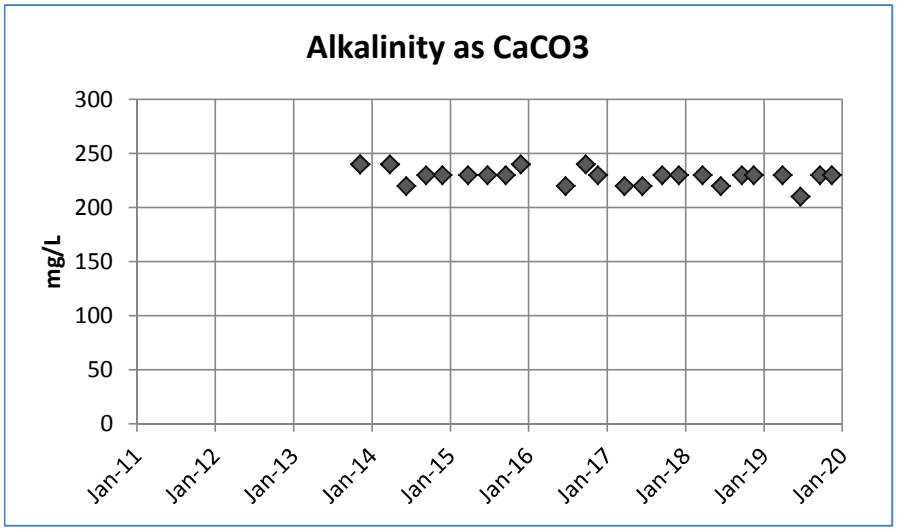
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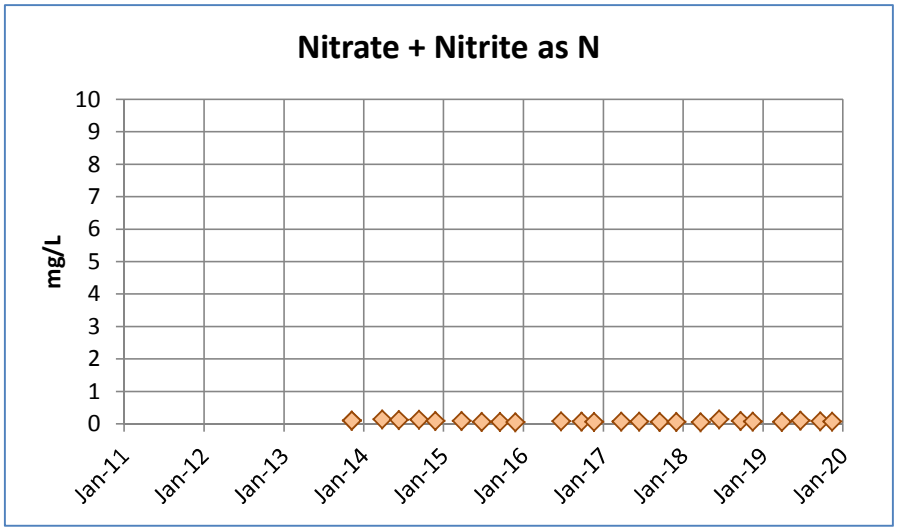
MW-4B Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-6B





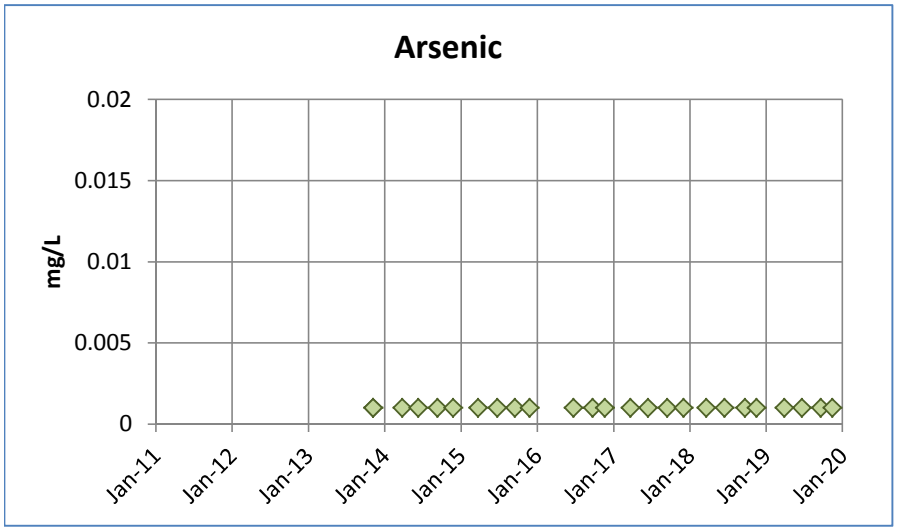


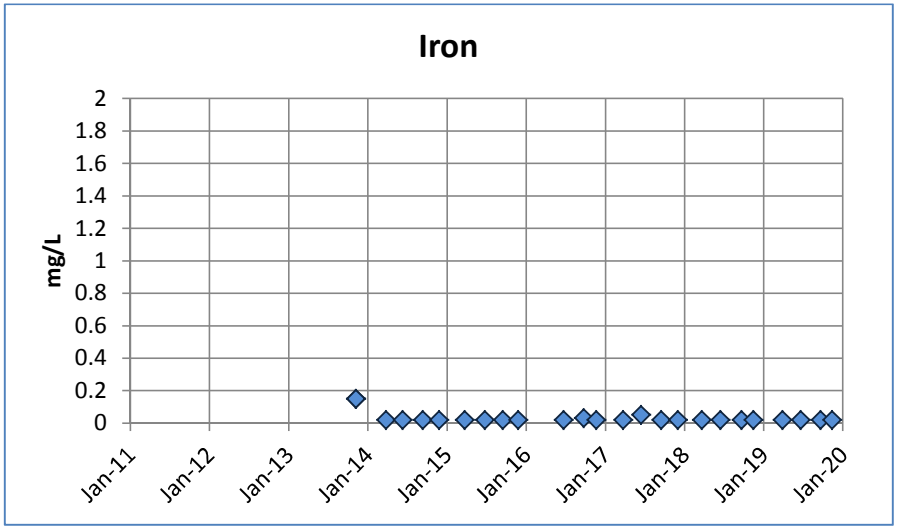


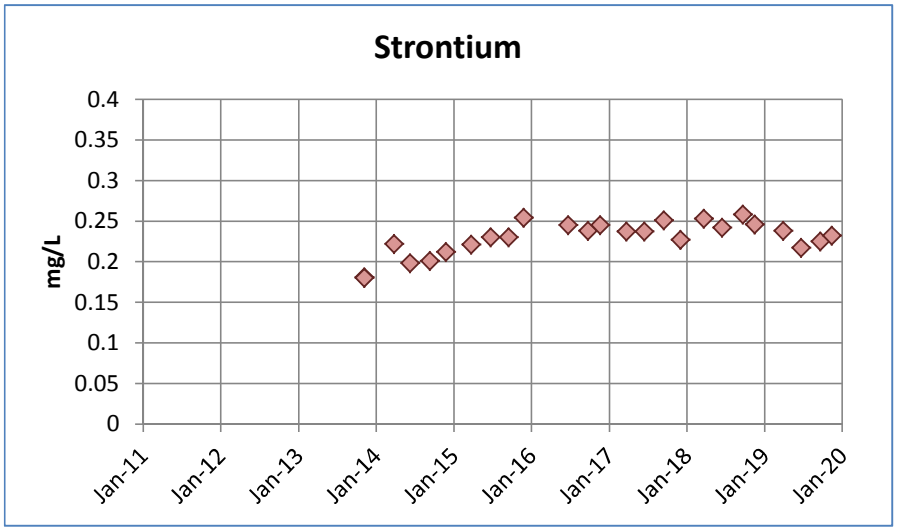
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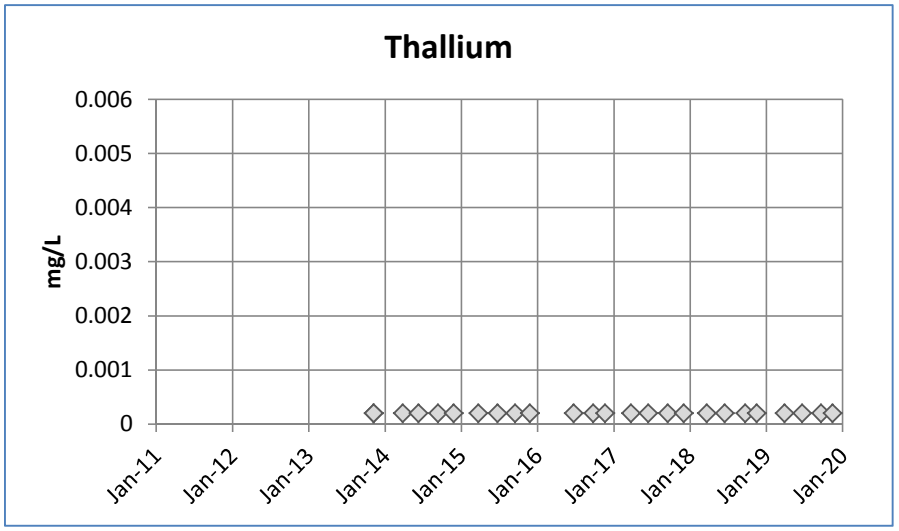
MW-6B Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-6B





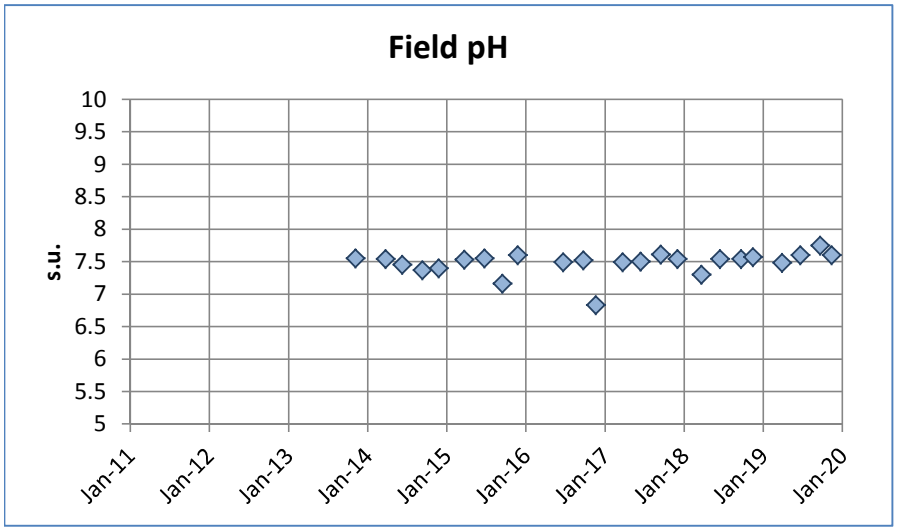


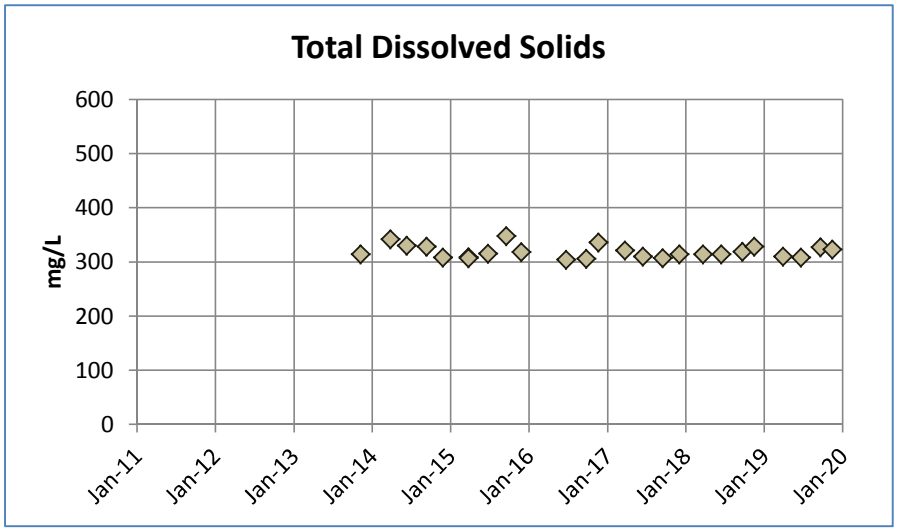


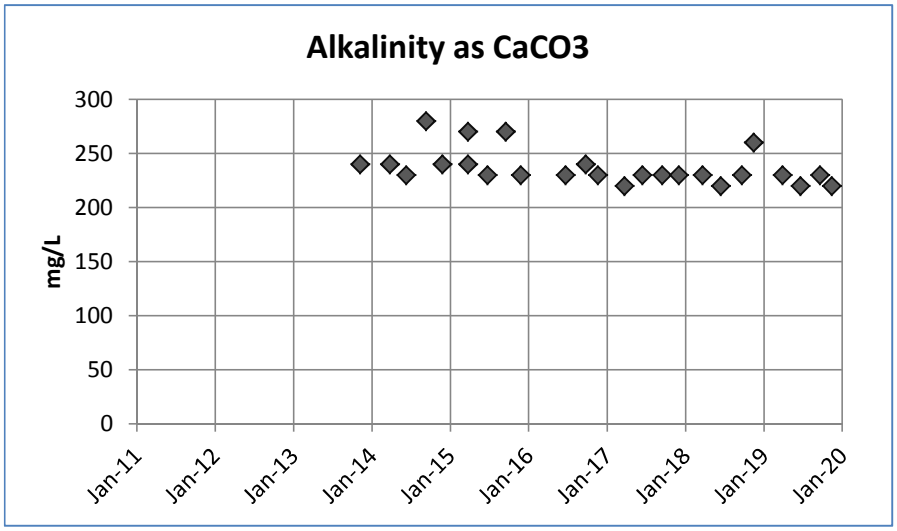
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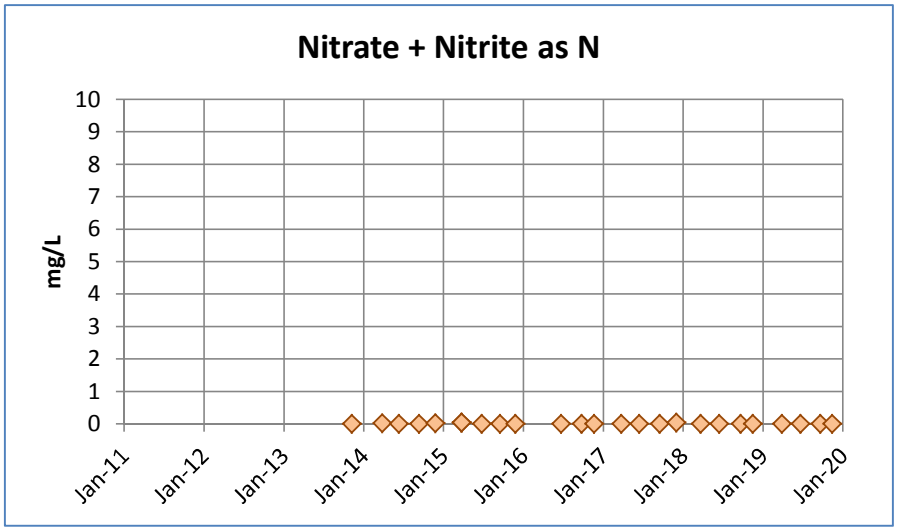
MW-6B Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-7





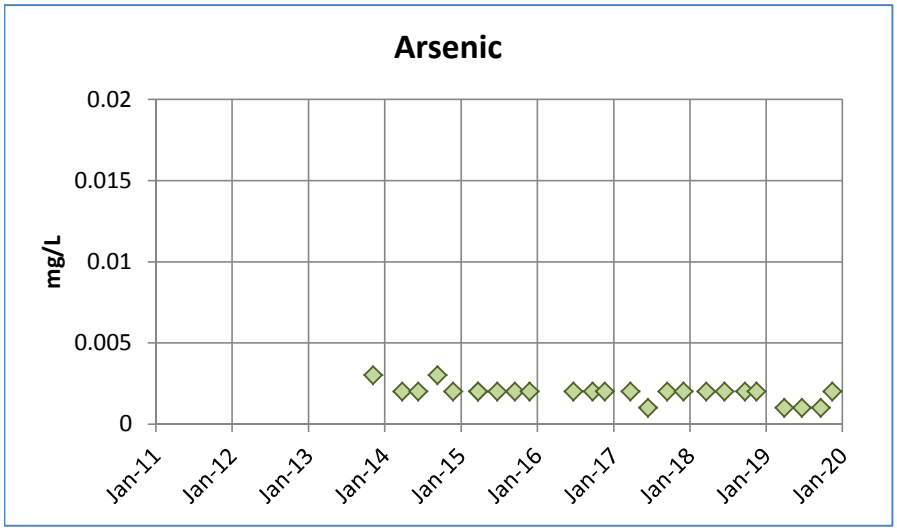


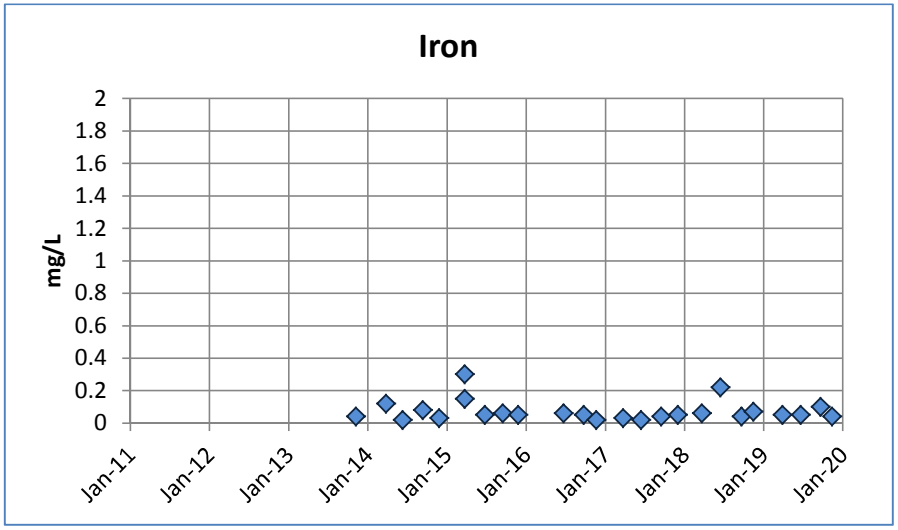


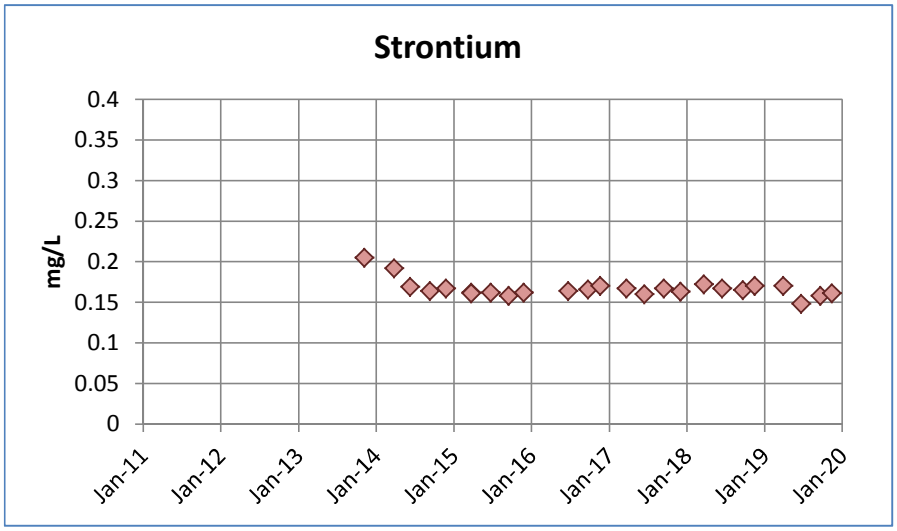
Hydrometrics, Inc.
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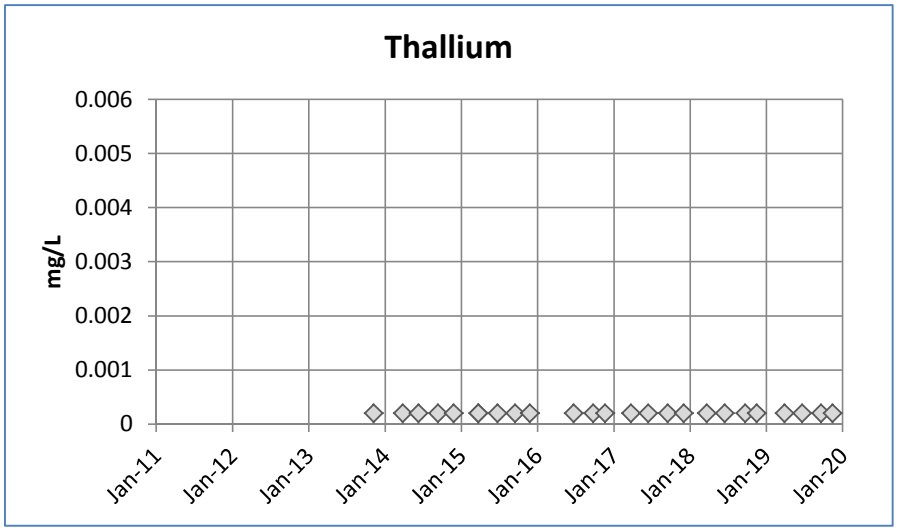
MW-7 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-7





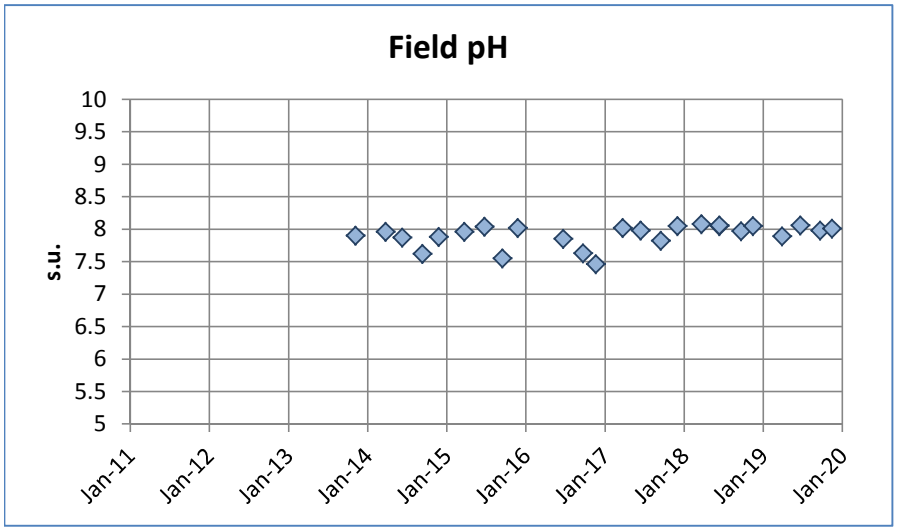


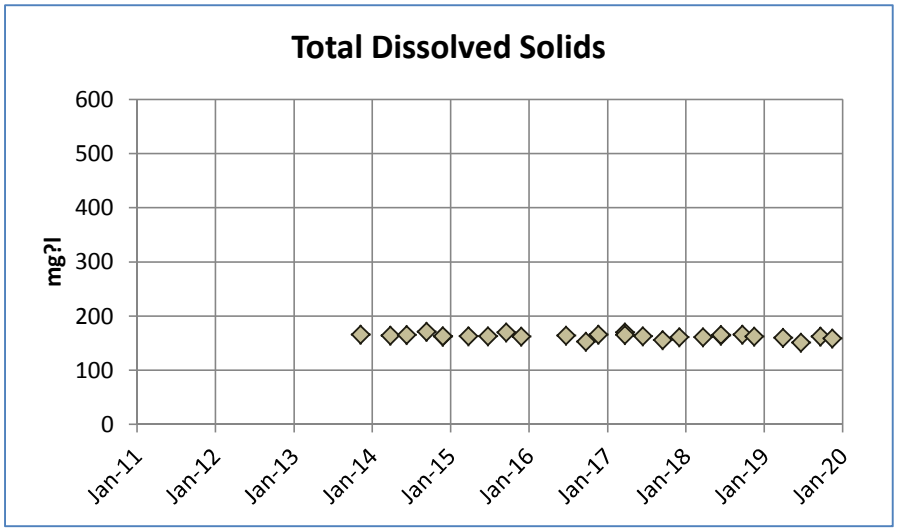


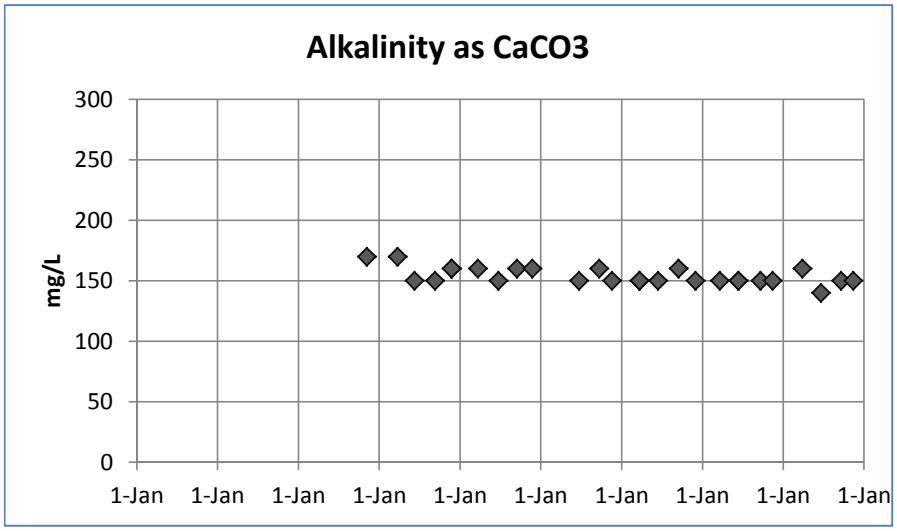
Hydrometrics, Inc.
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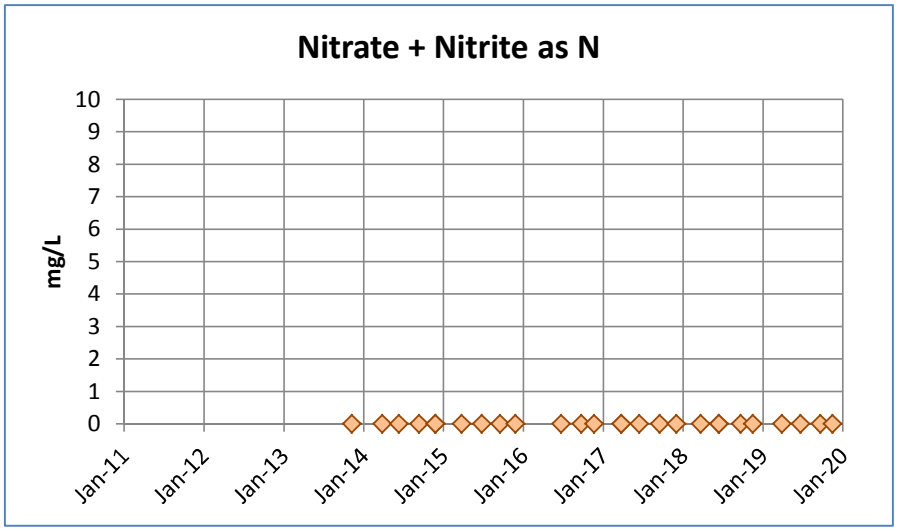
MW-7 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-8





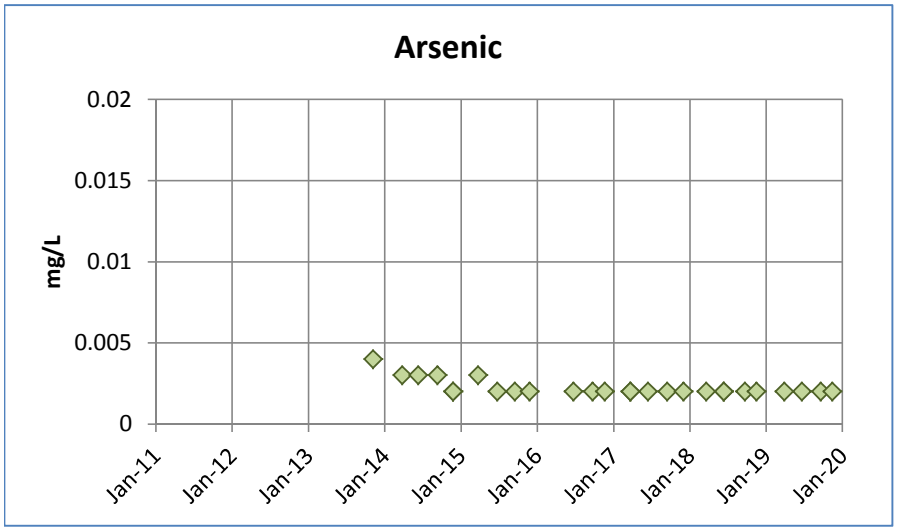


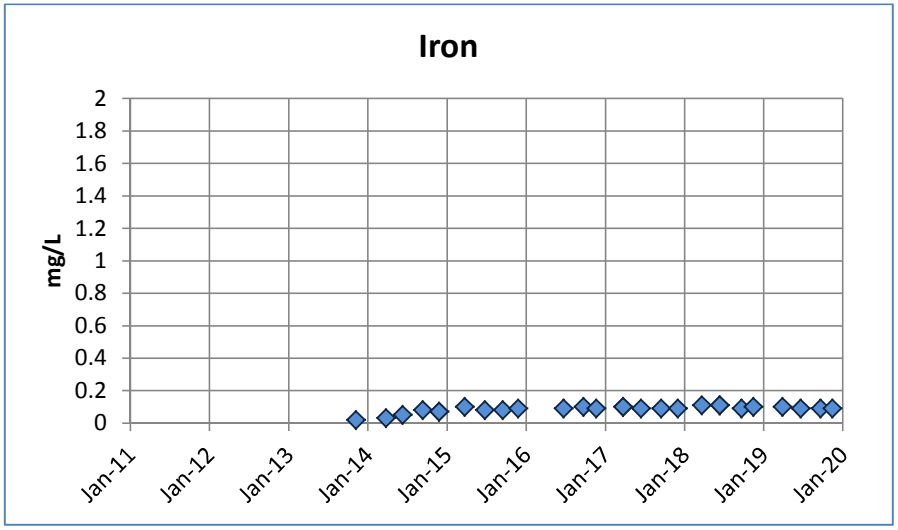


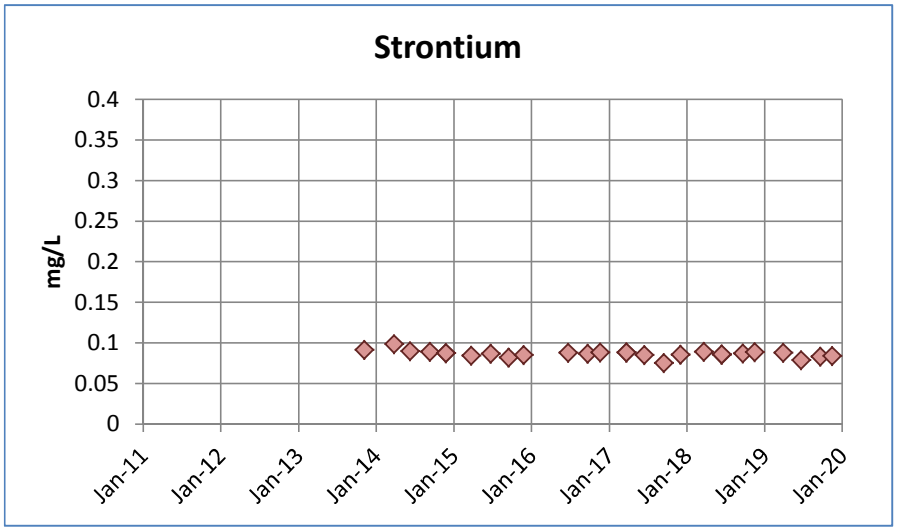
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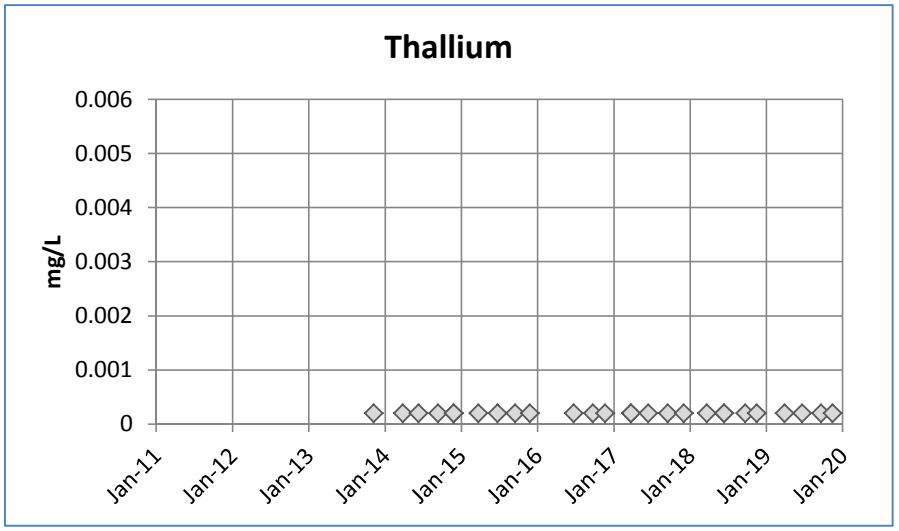
MW-8 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-8





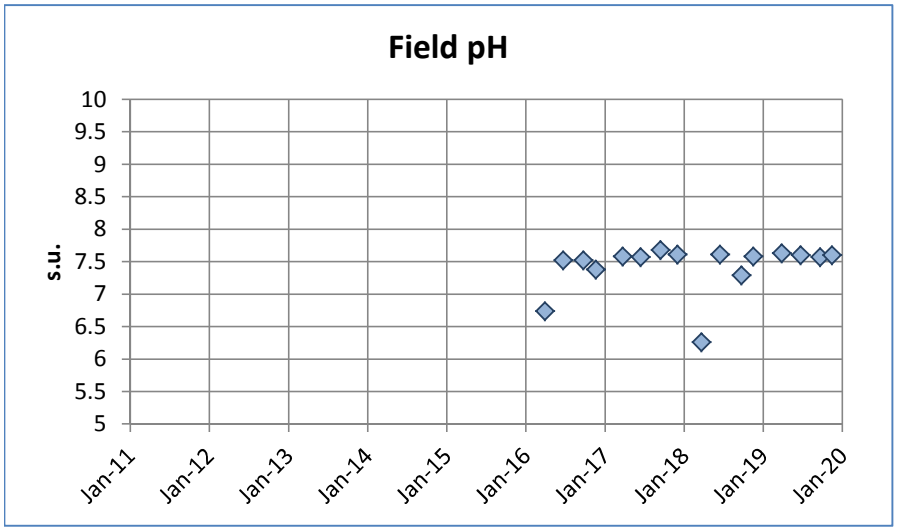


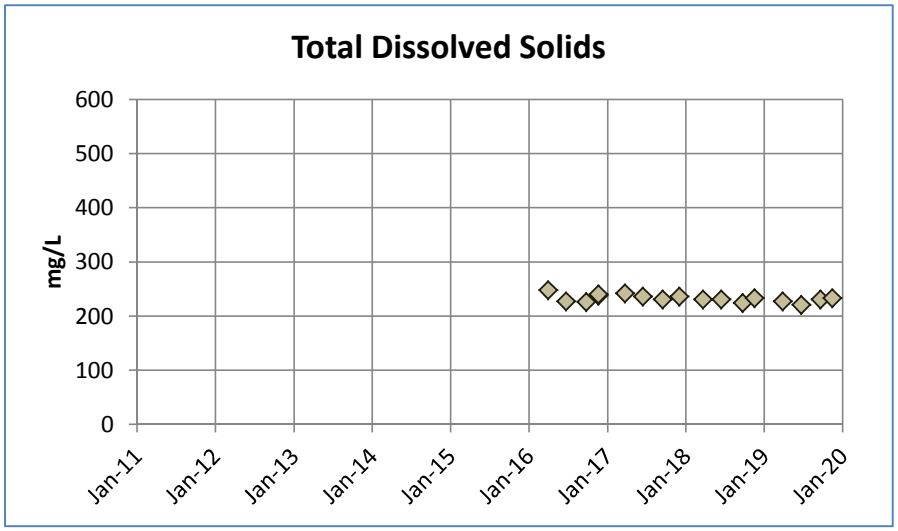


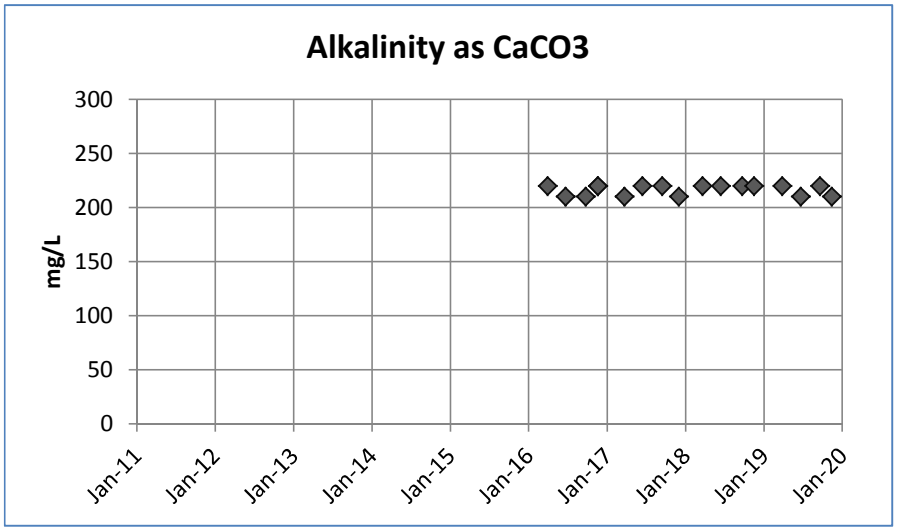
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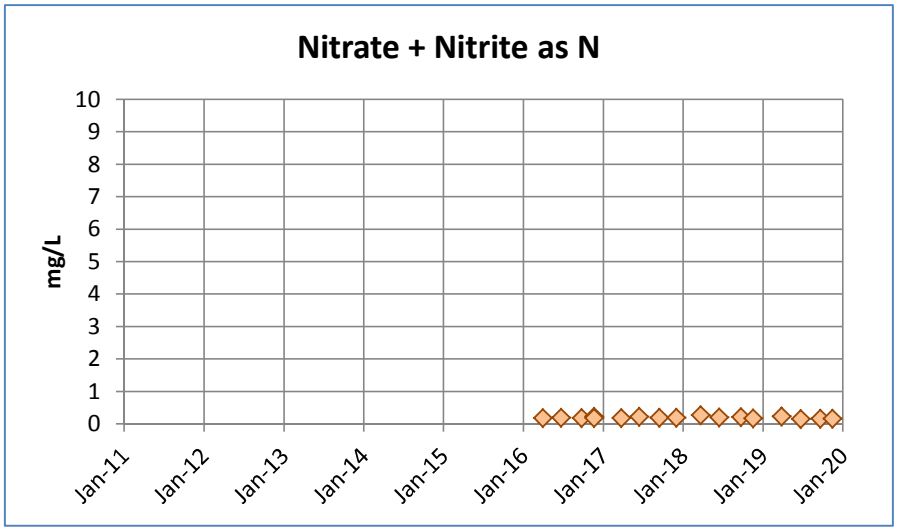
MW-8 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-13





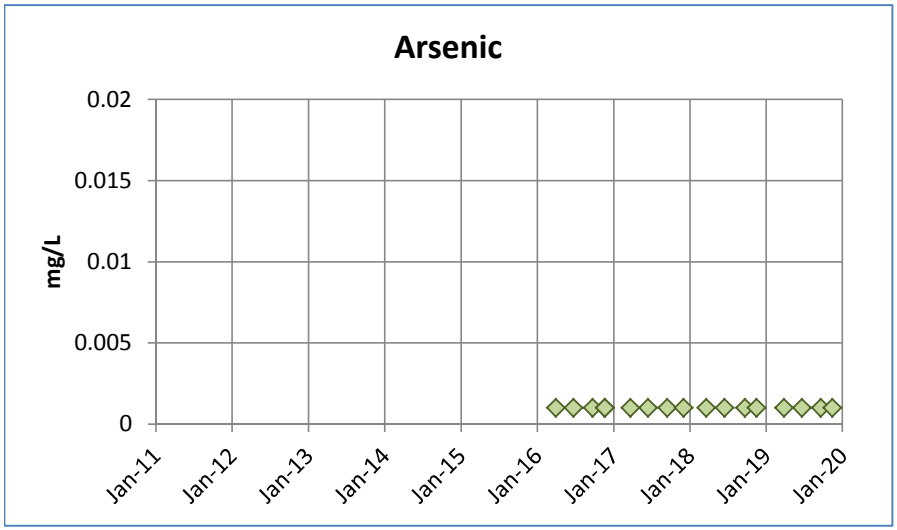


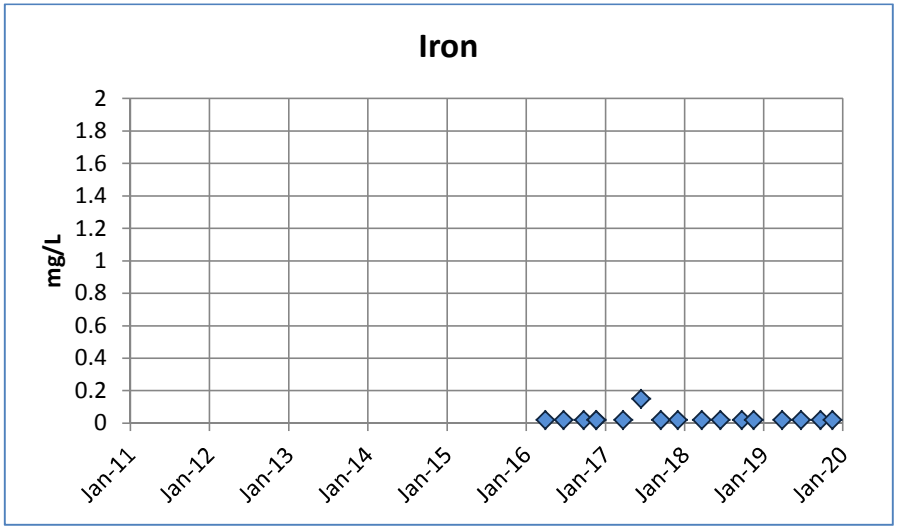


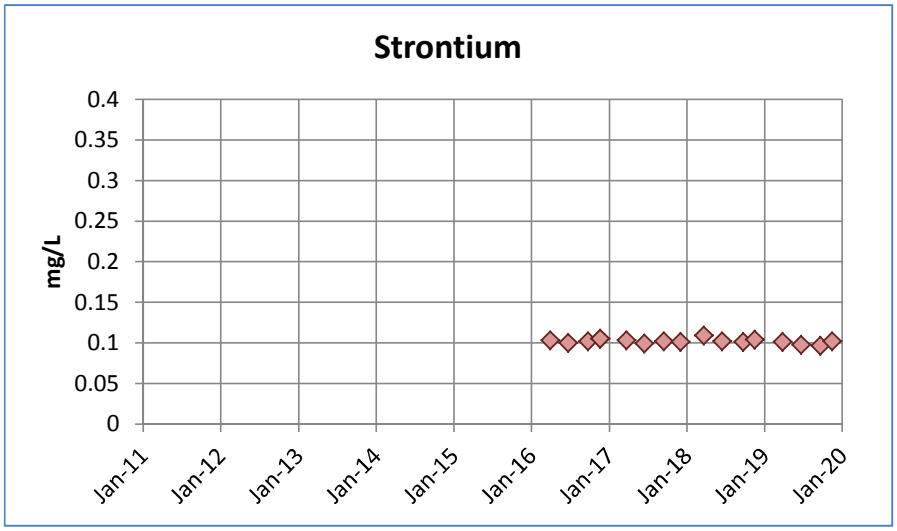
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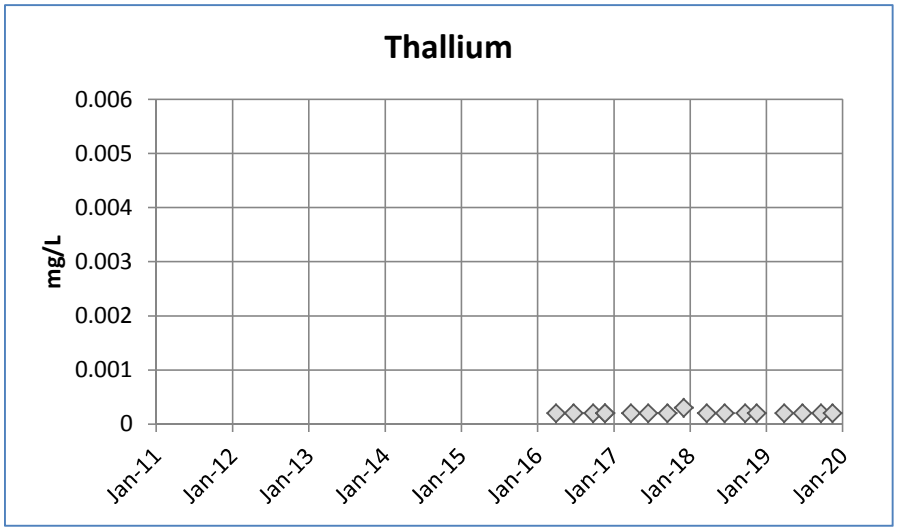
MW-13 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-13





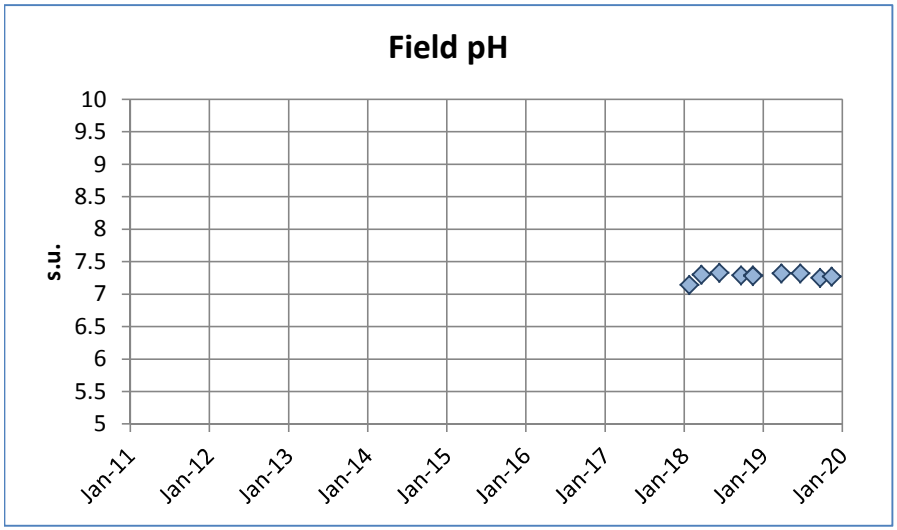


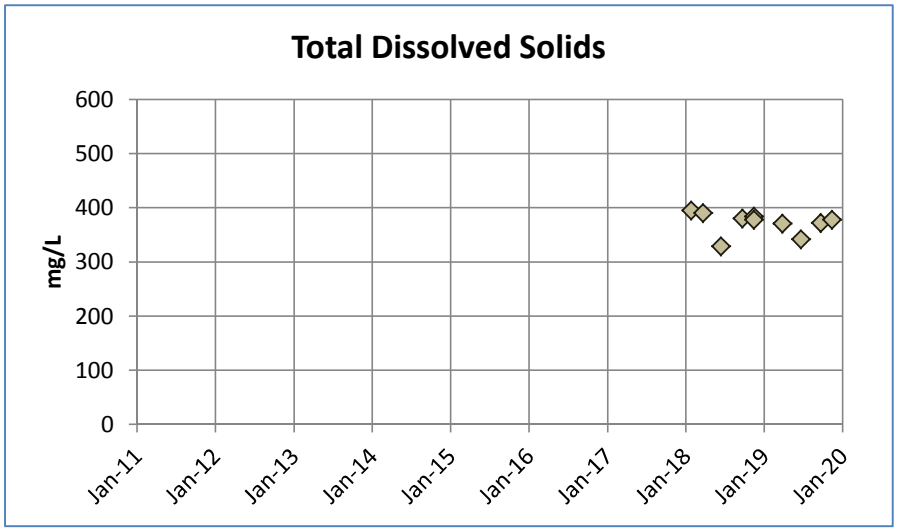


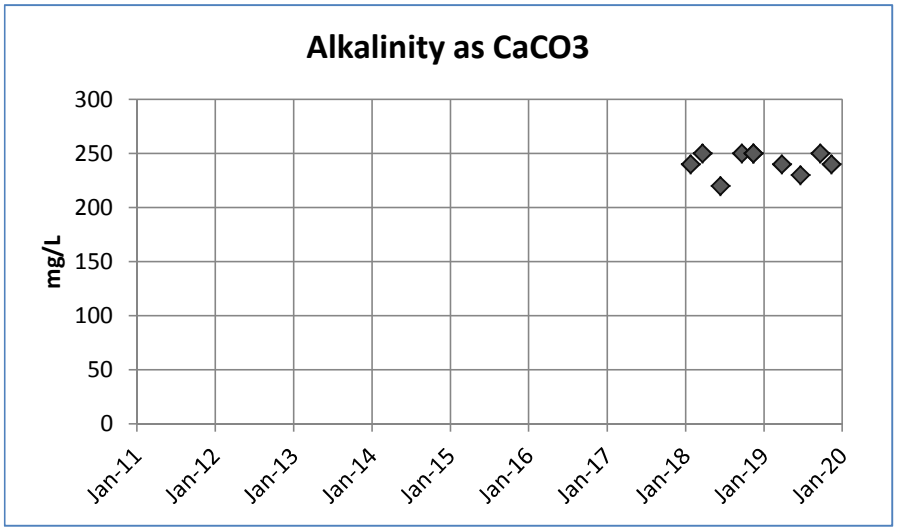
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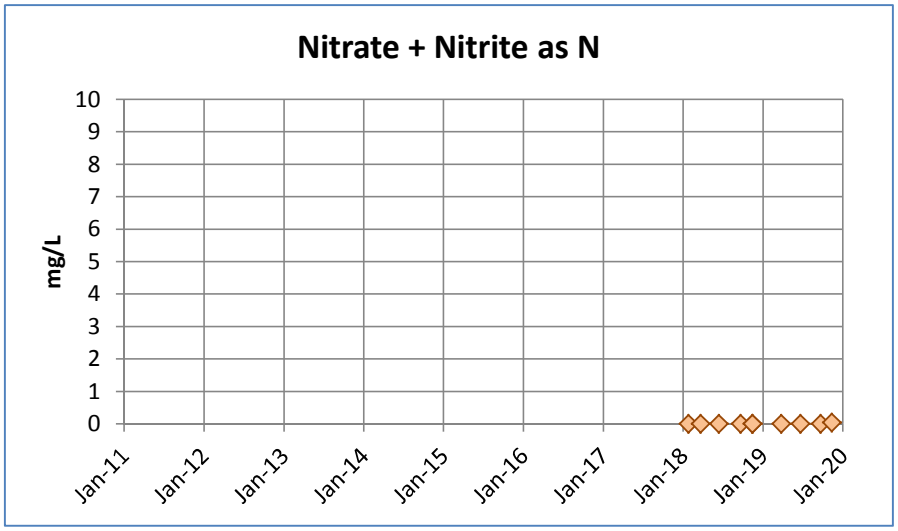
MW-13 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-16





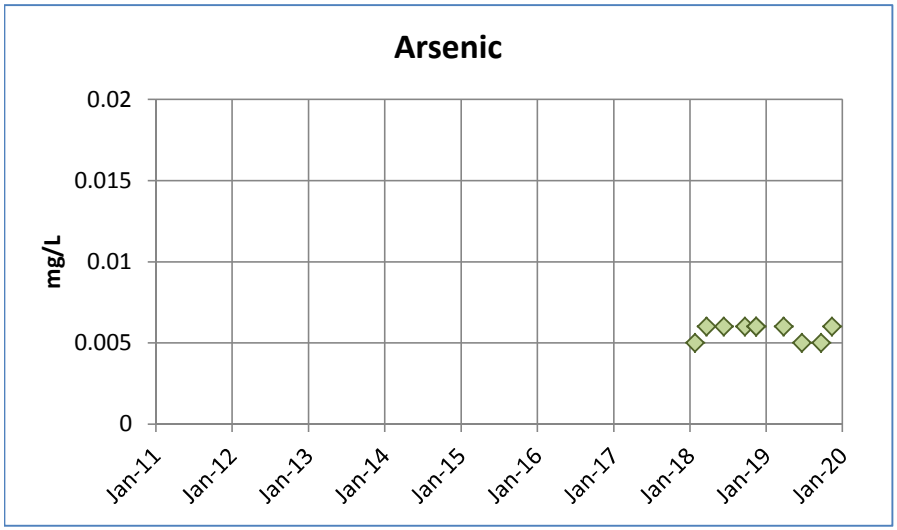


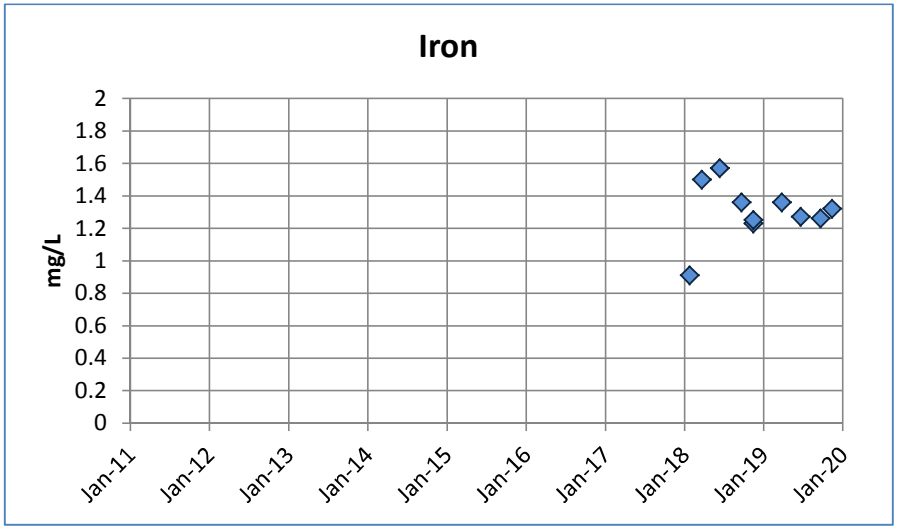


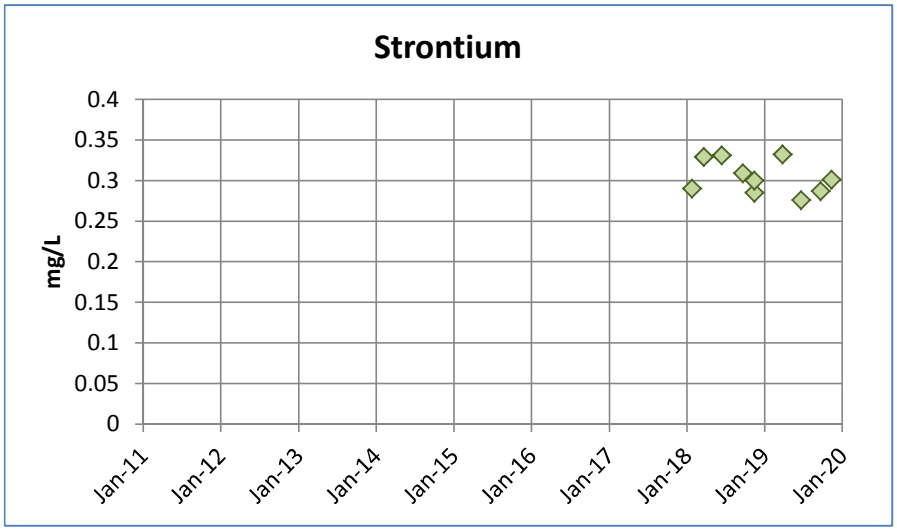
Hydrometrics, Inc.
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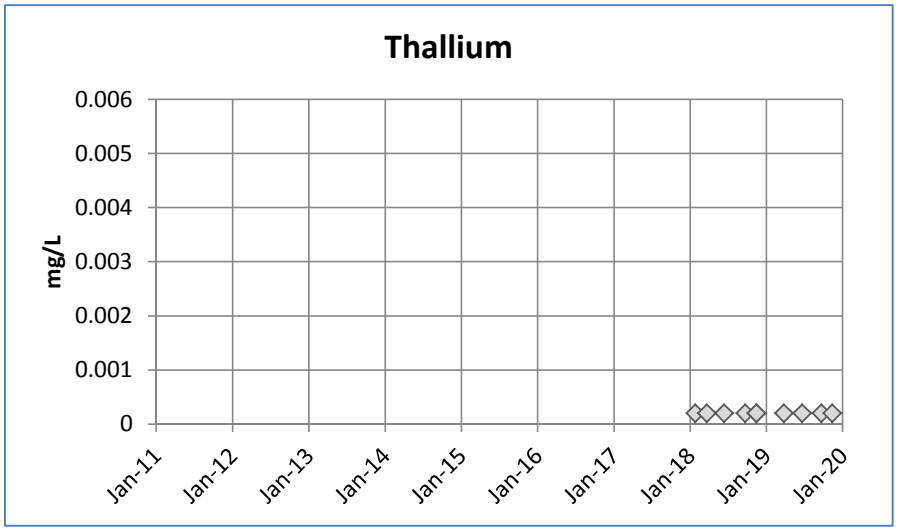
MW-16 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-16





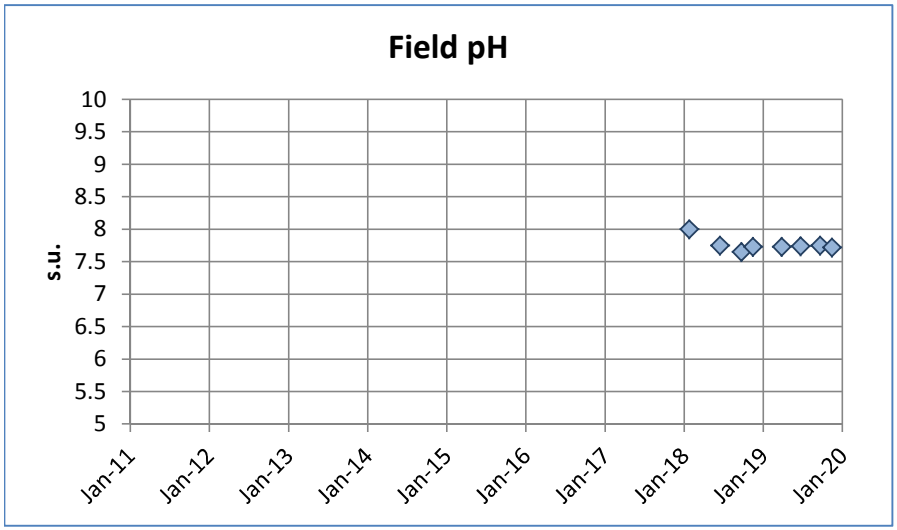


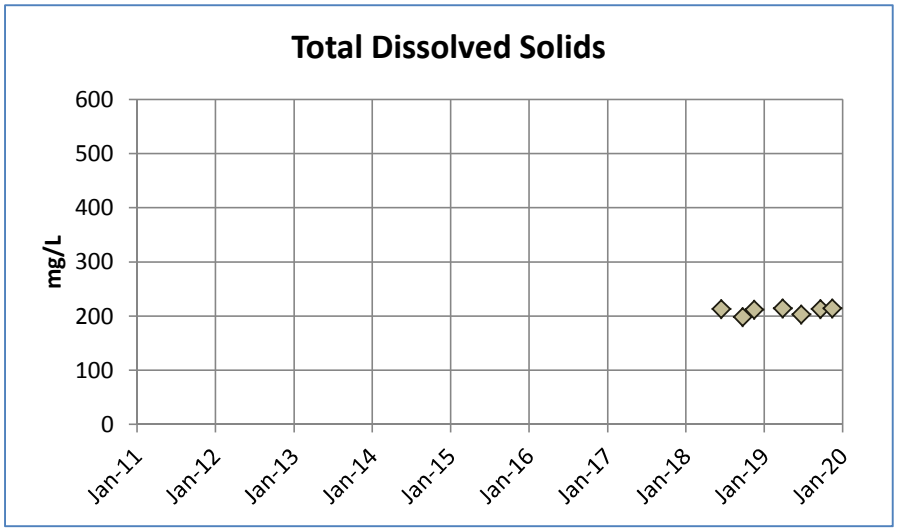


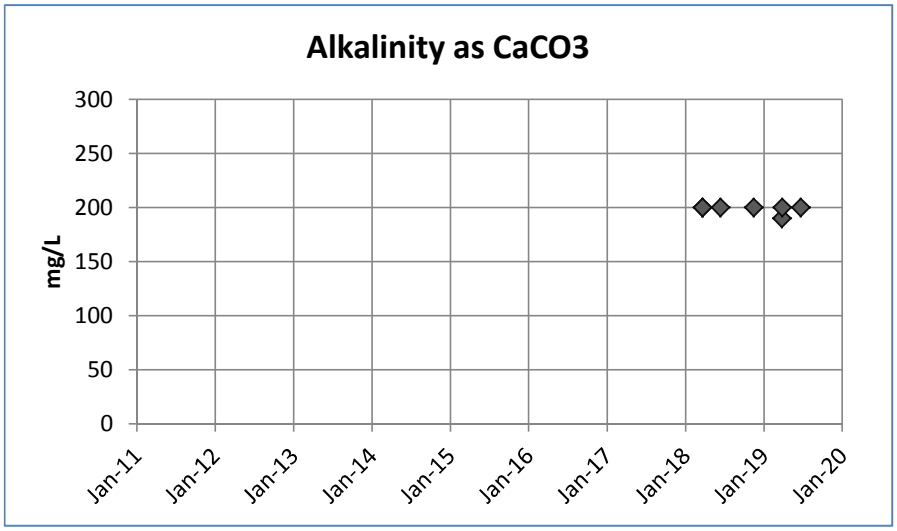
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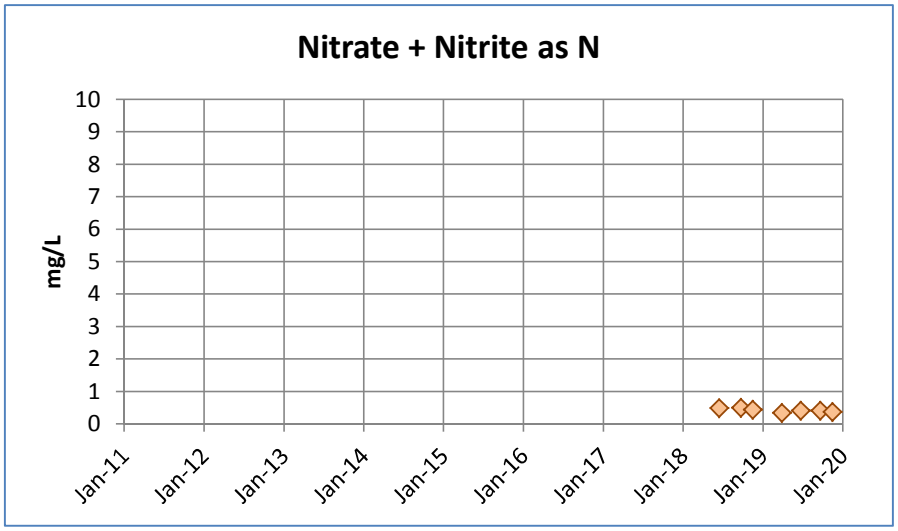
MW-16 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-17





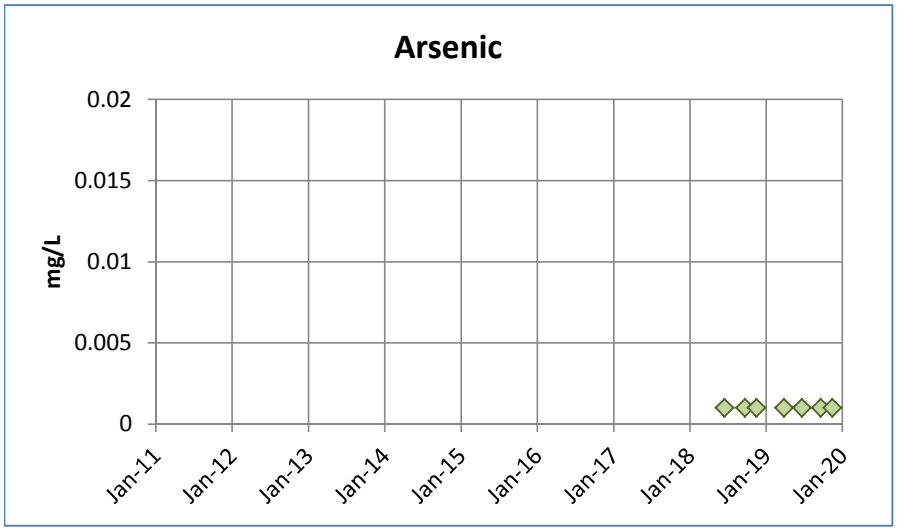


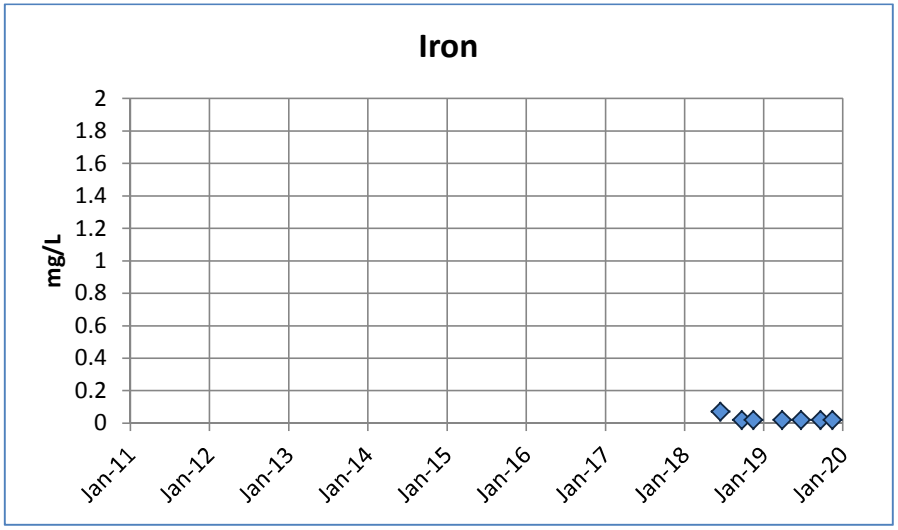


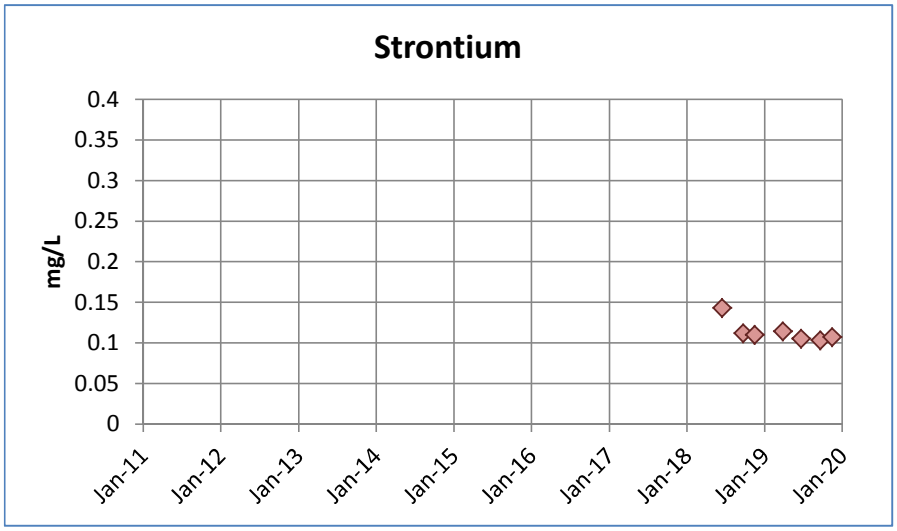
Hydrometrics, Inc.
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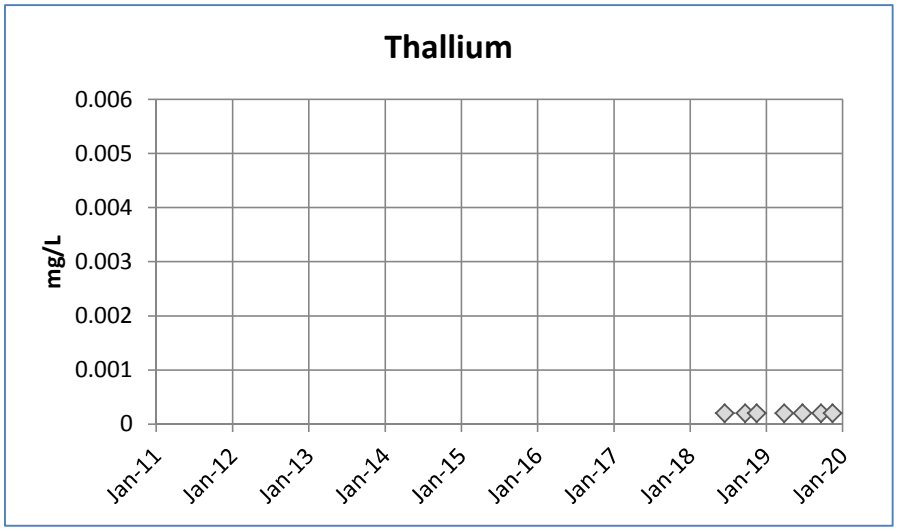
MW-17 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-17





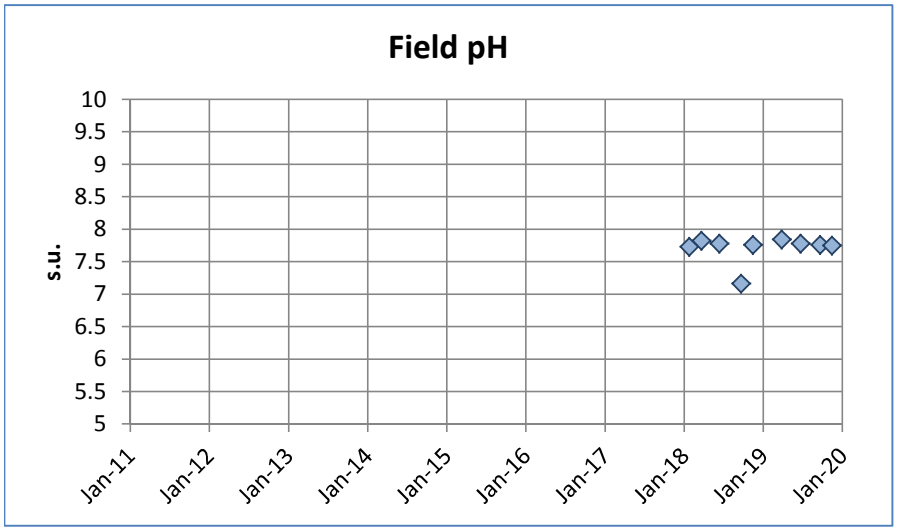


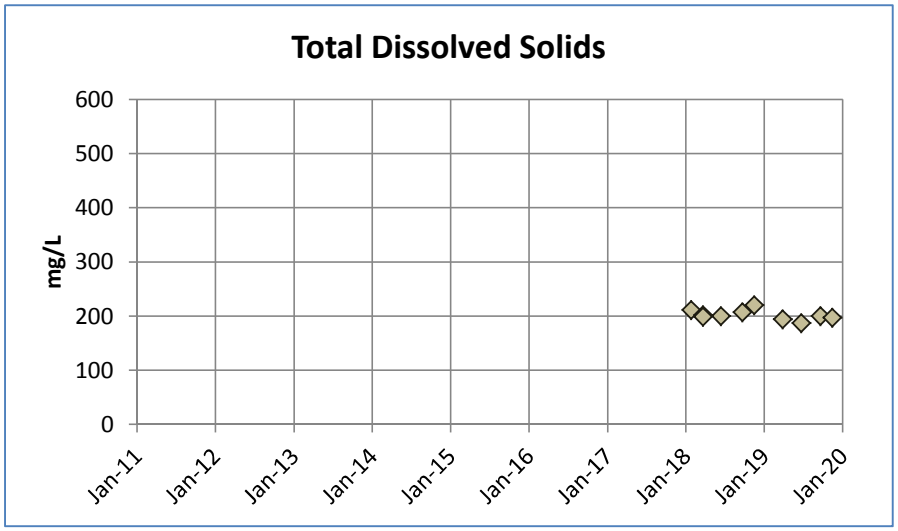


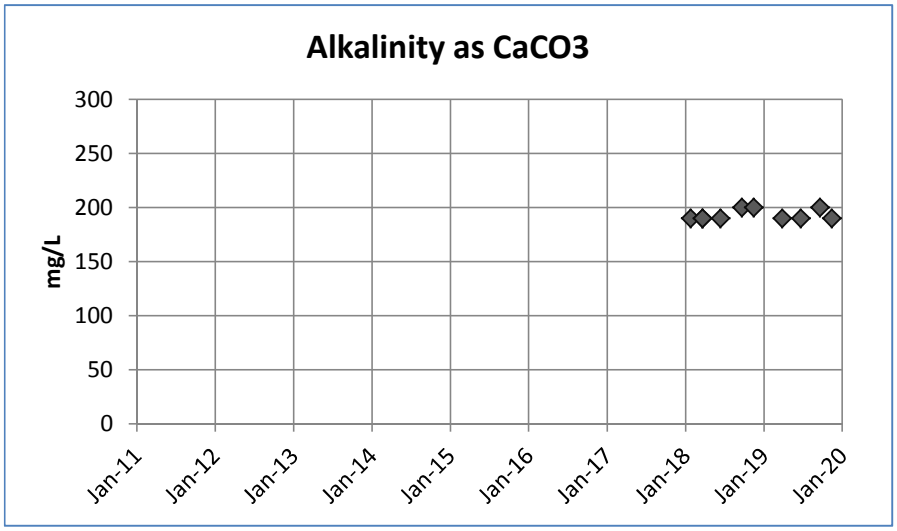
Hydrometrics, Inc.
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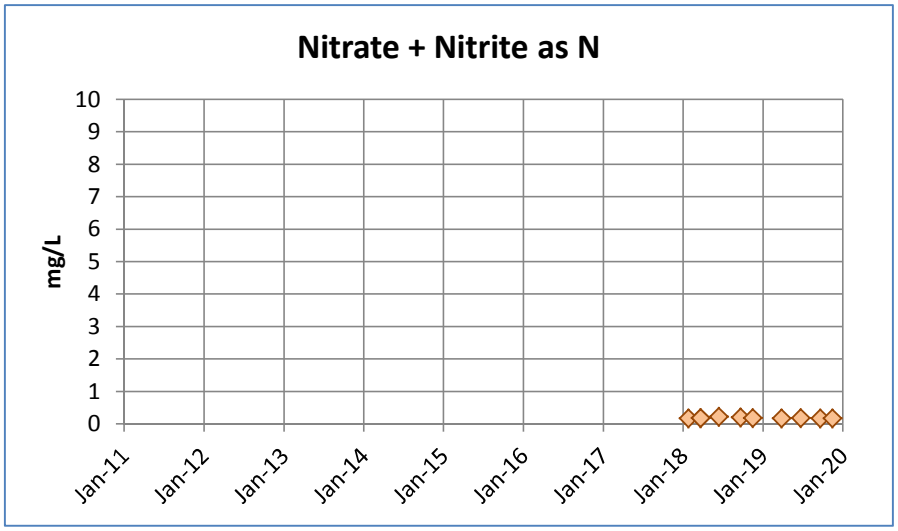
MW-17 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-18





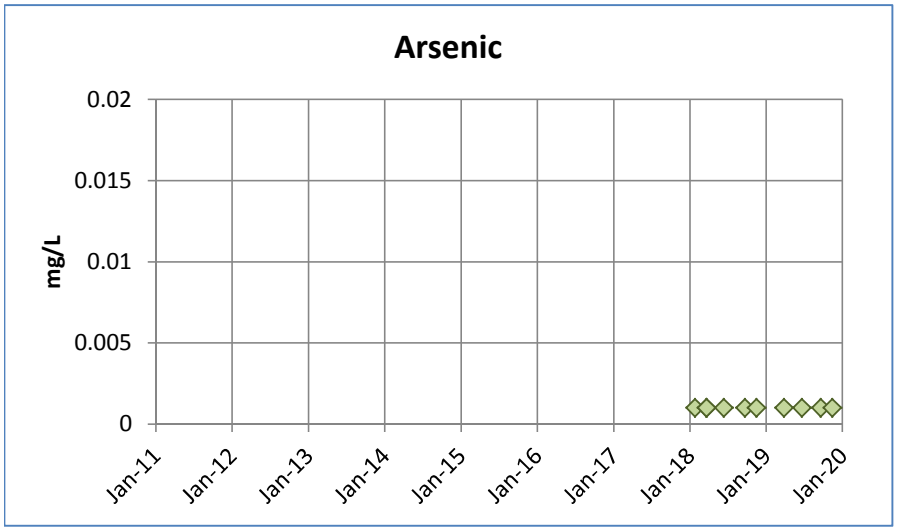


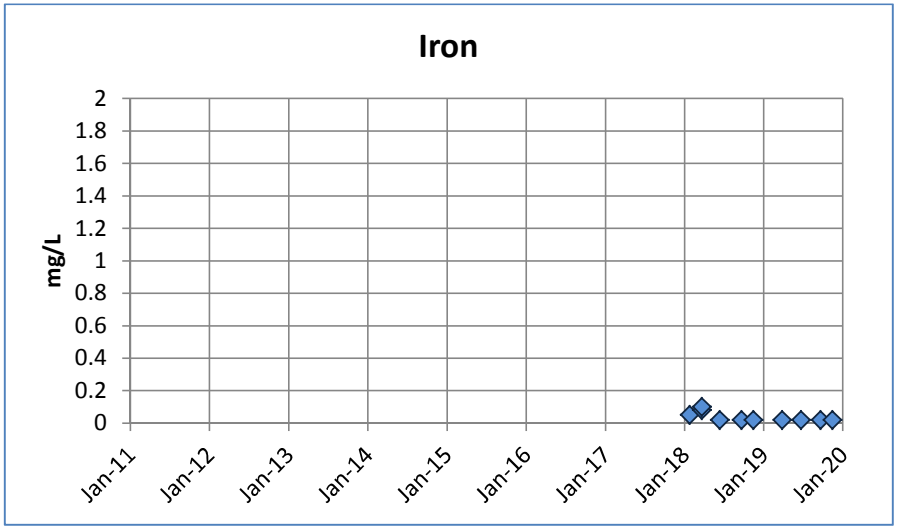


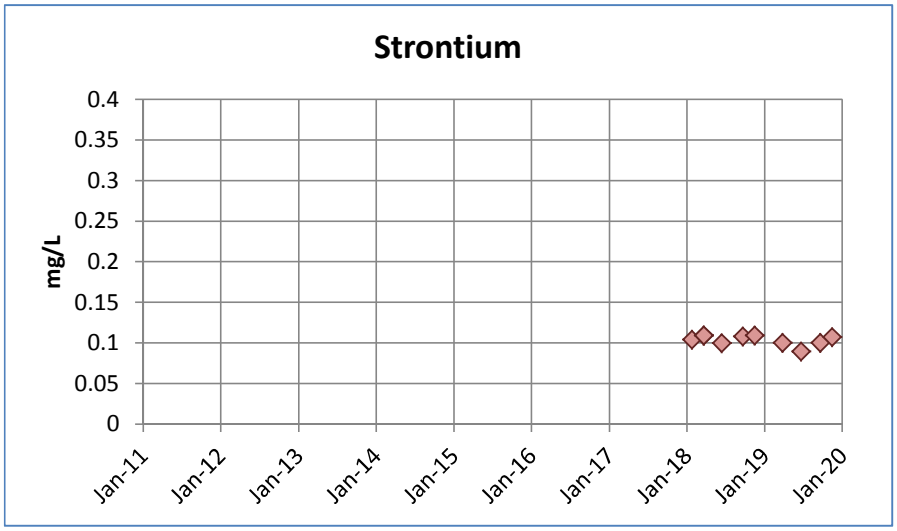
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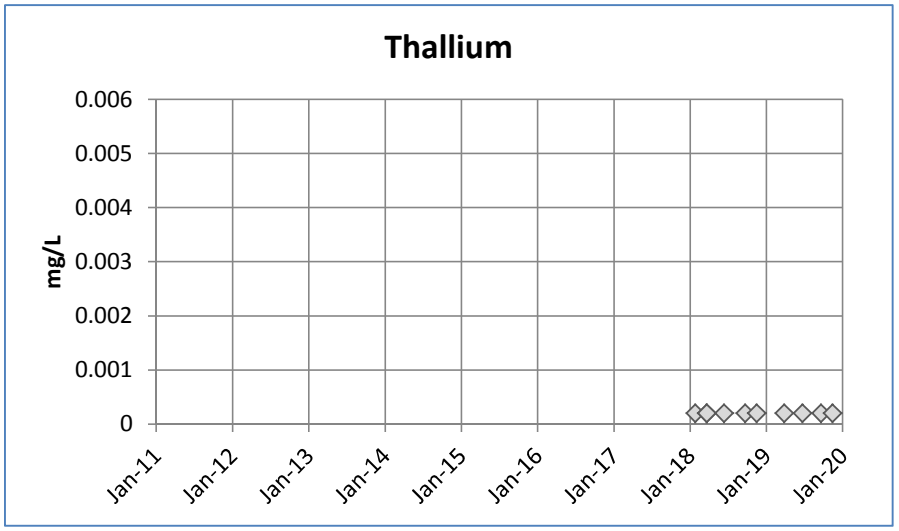
MW-18 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-18





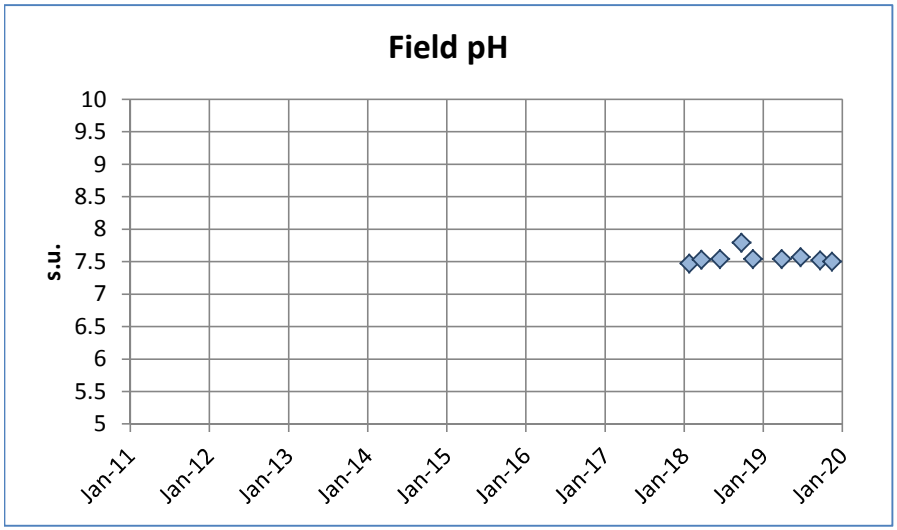


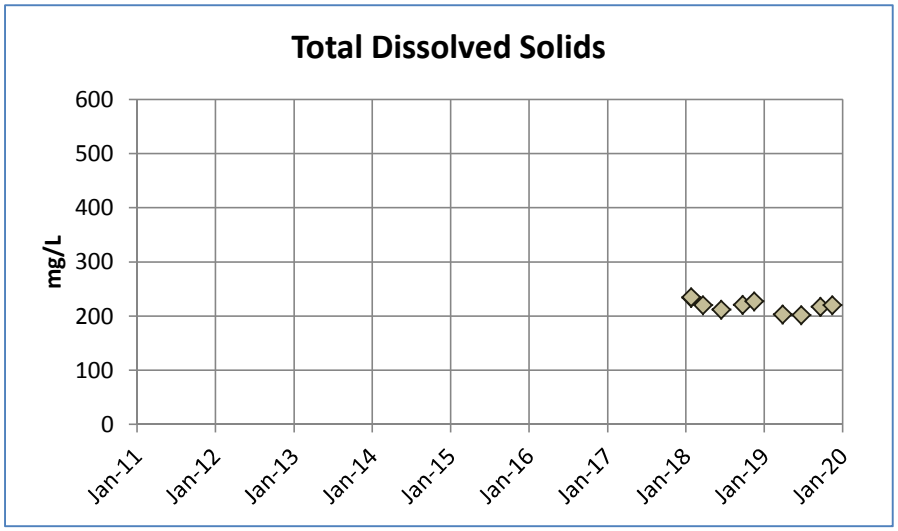


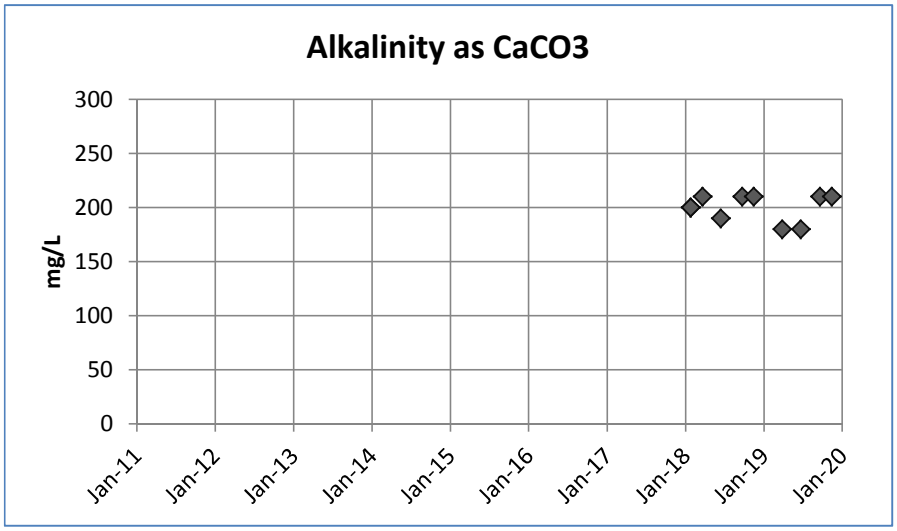
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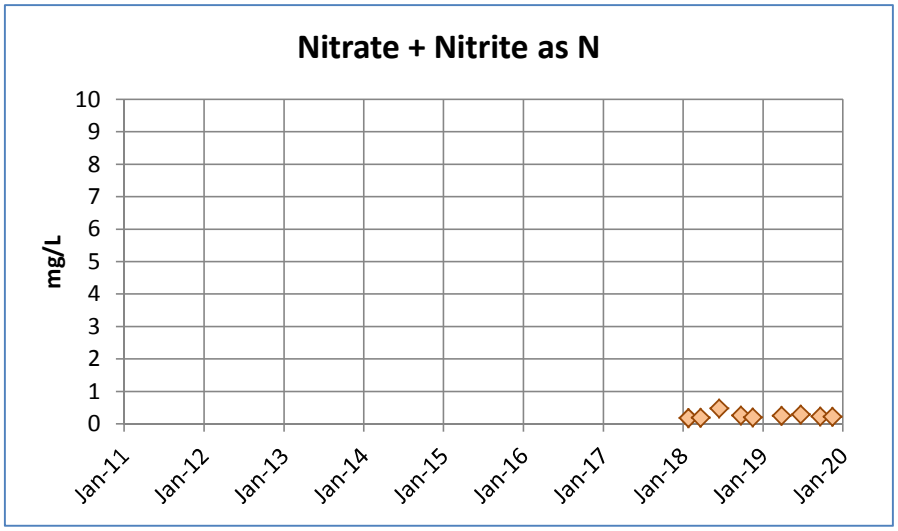
MW-18 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-19





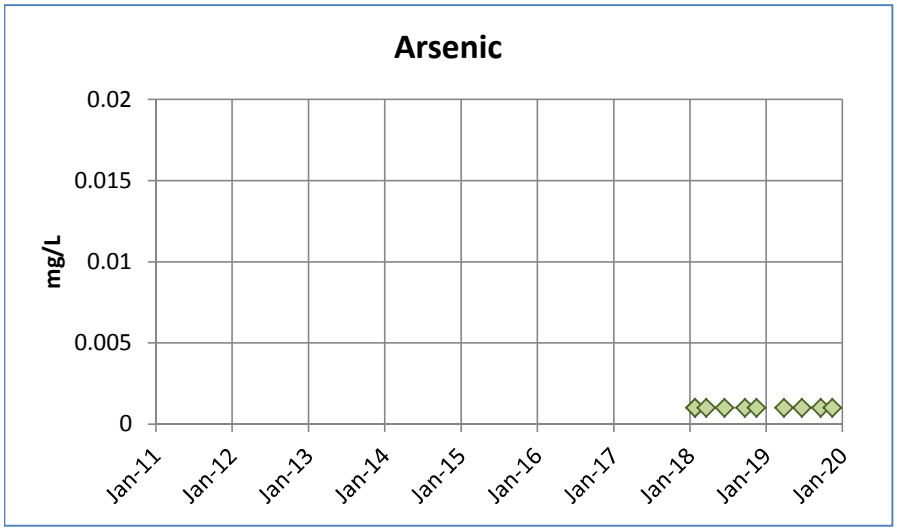


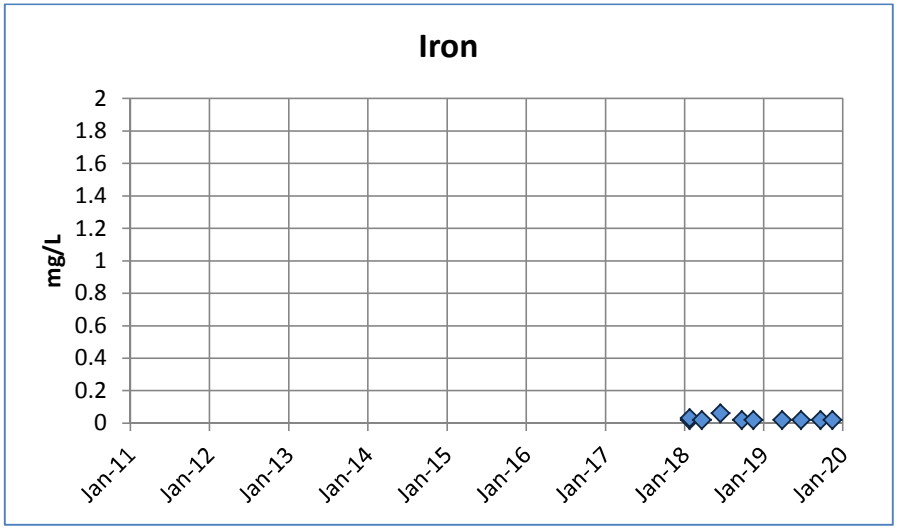


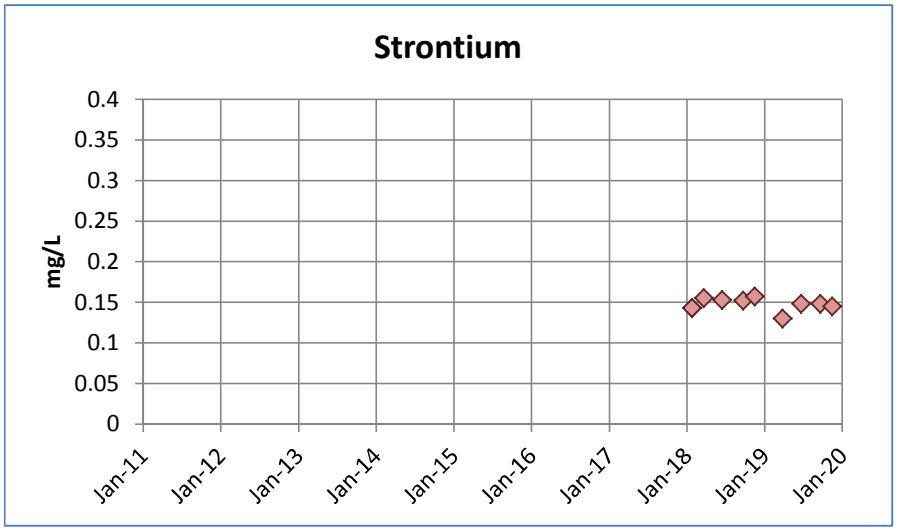
Hydrometrics, Inc.
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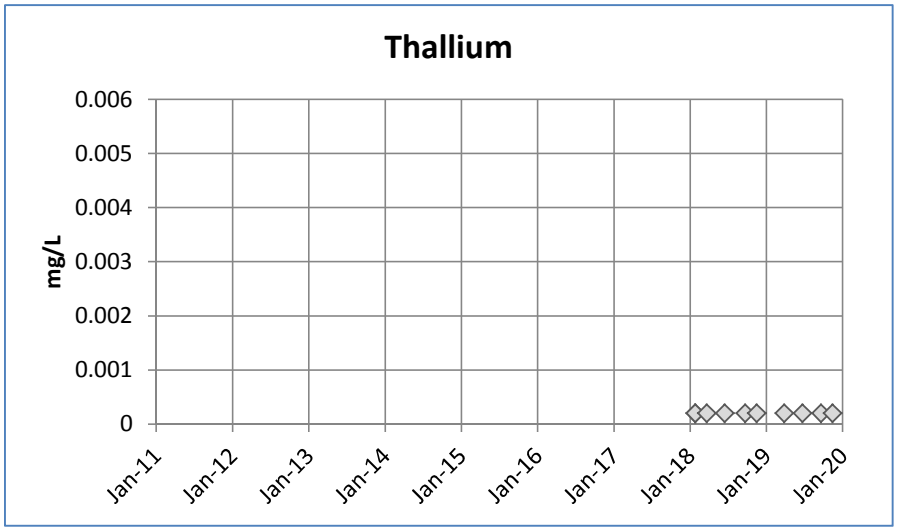
MW-19 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-19





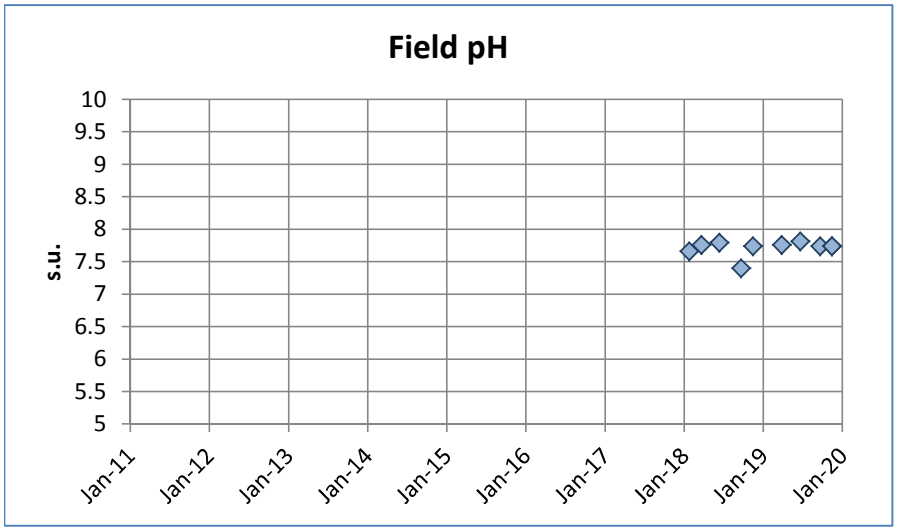


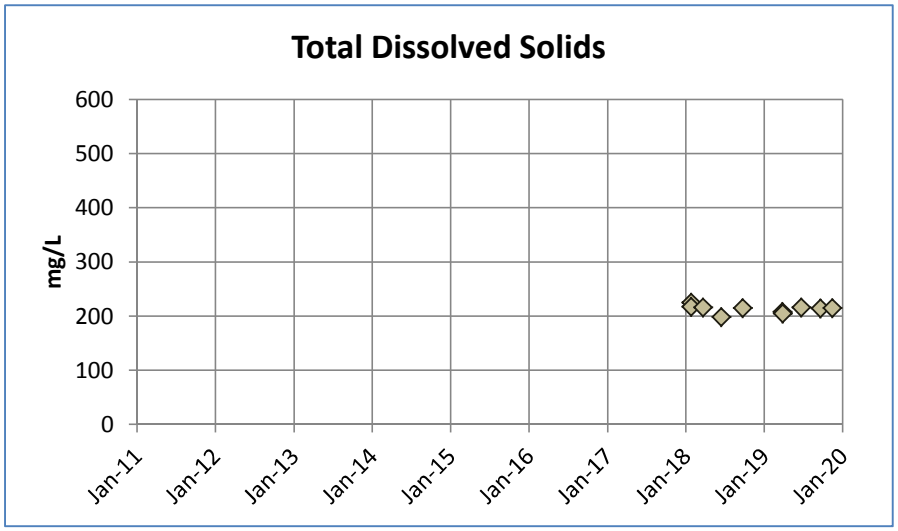


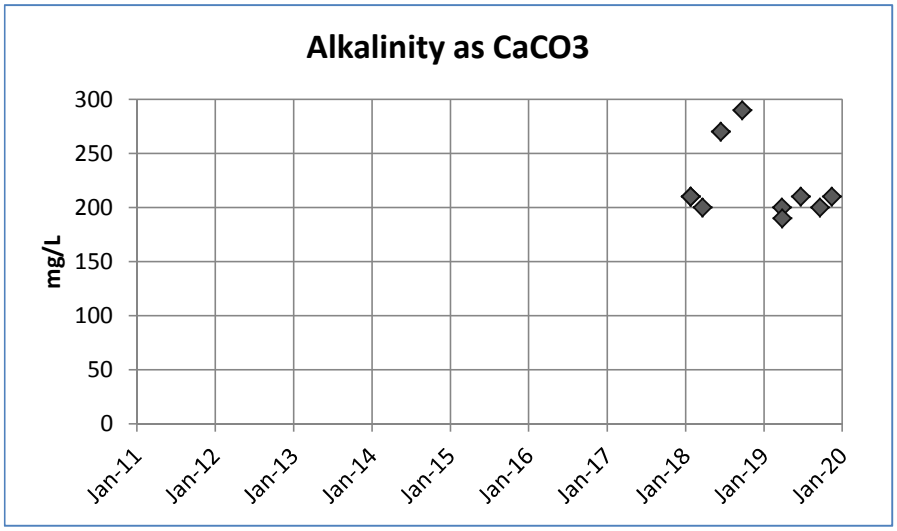
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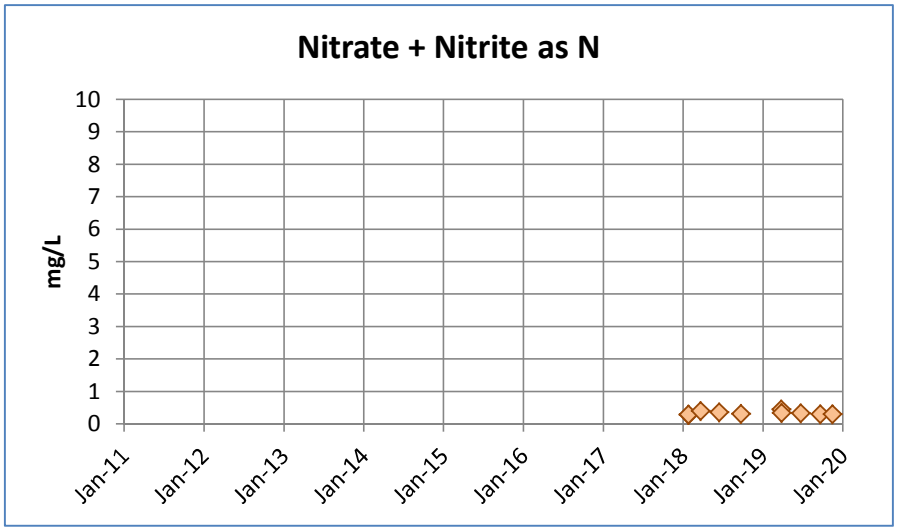
MW-19 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-20





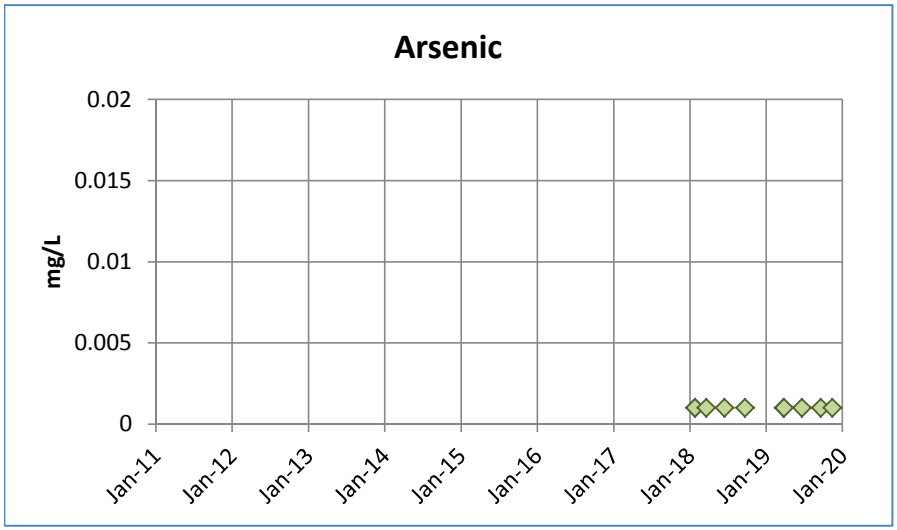


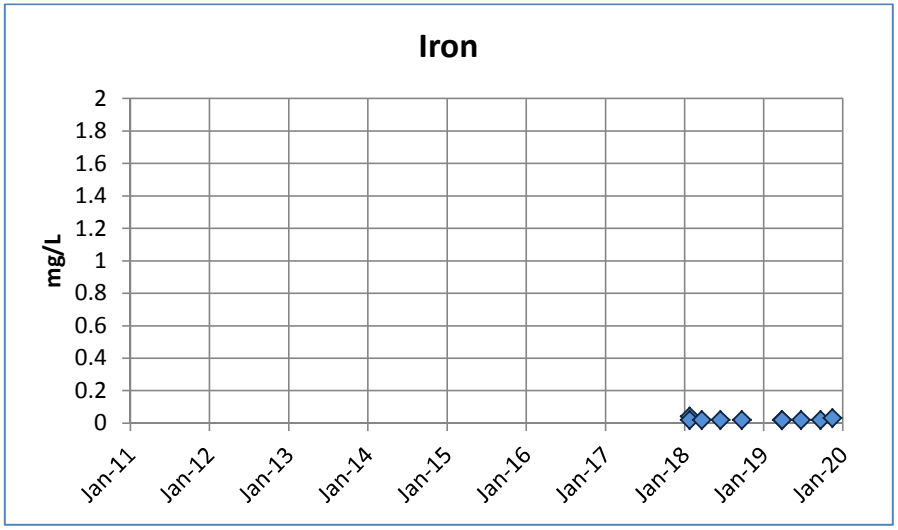


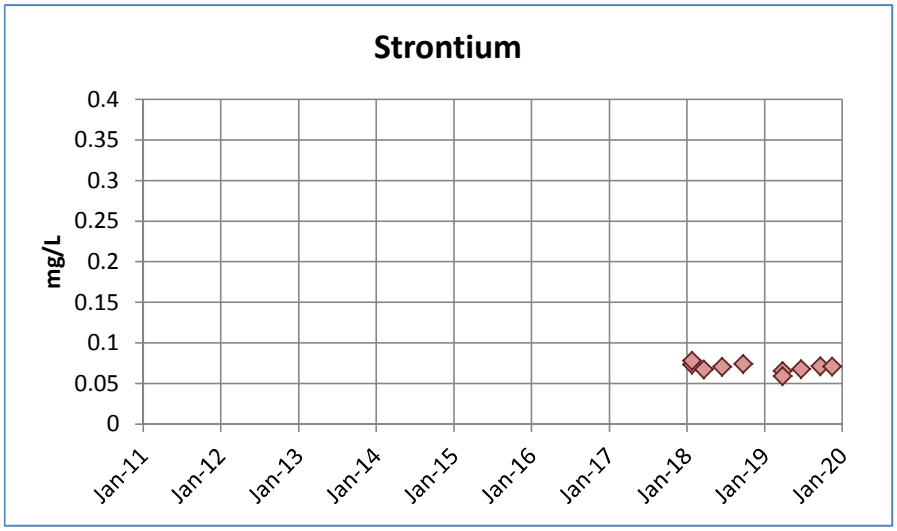
Hydrometrics, Inc.
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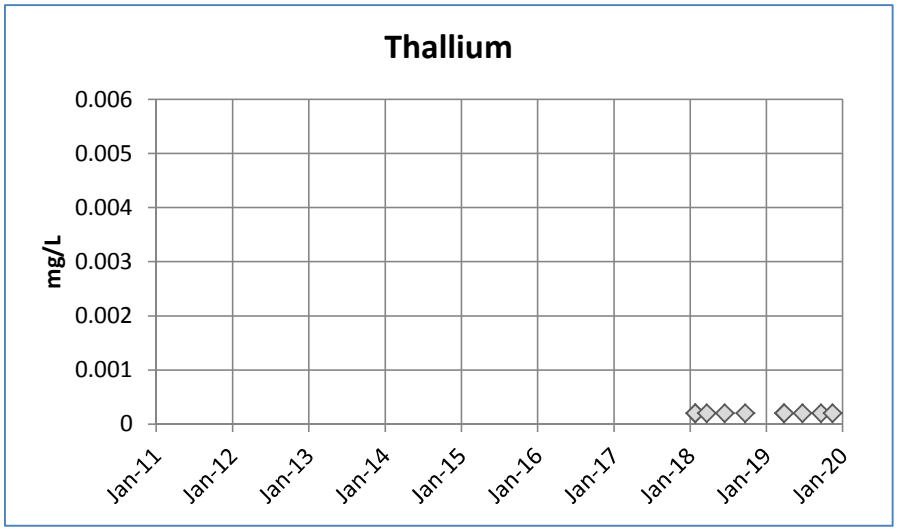
MW-20 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-20





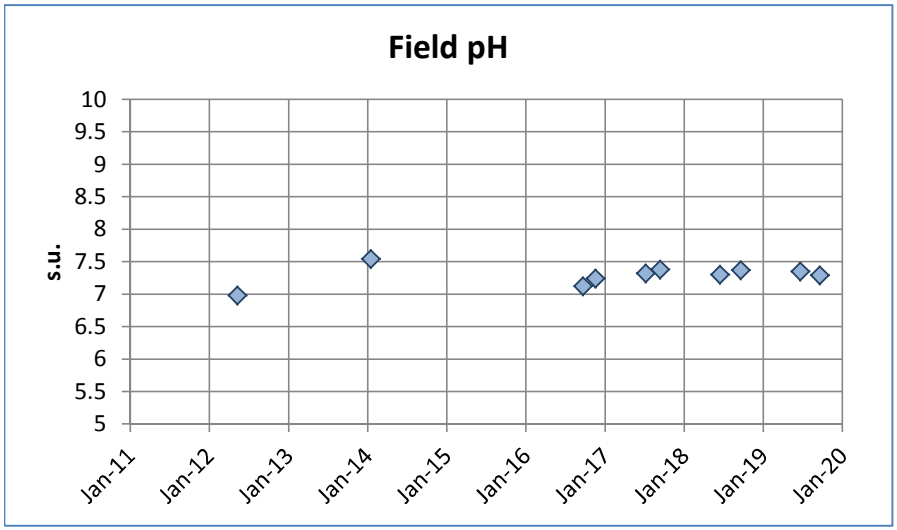


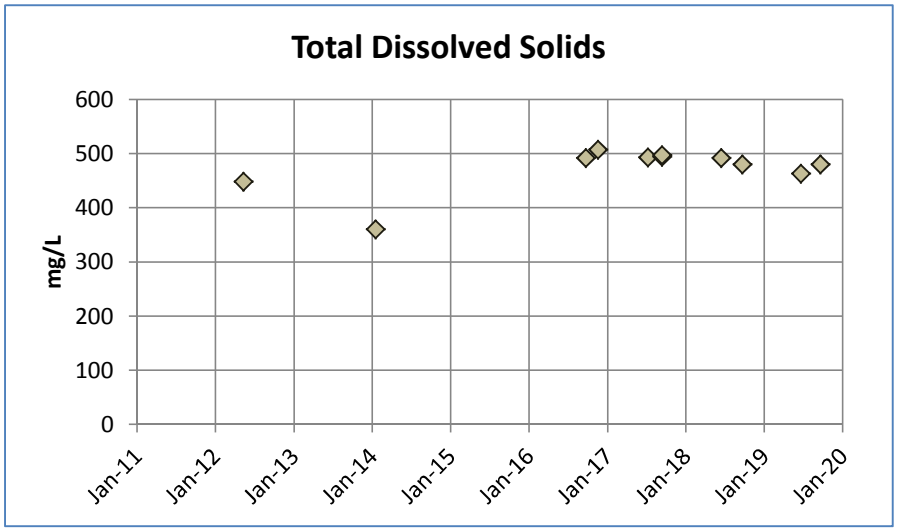


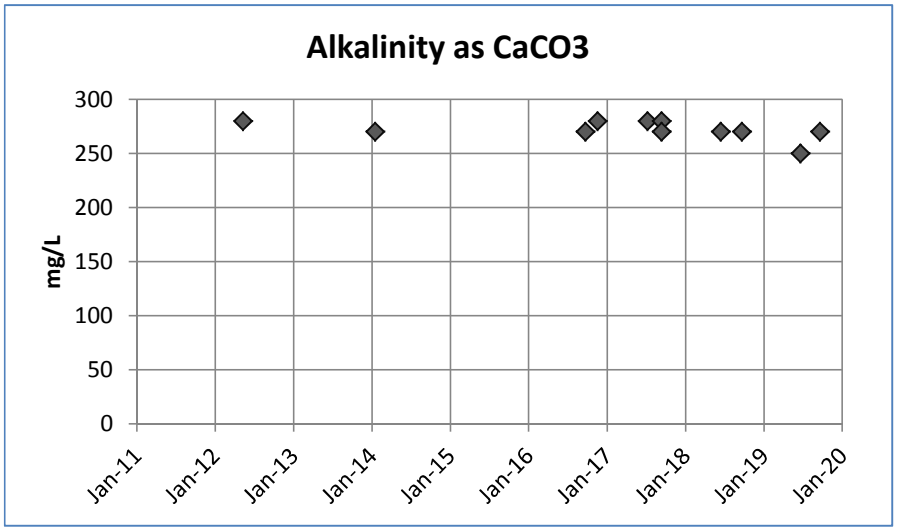
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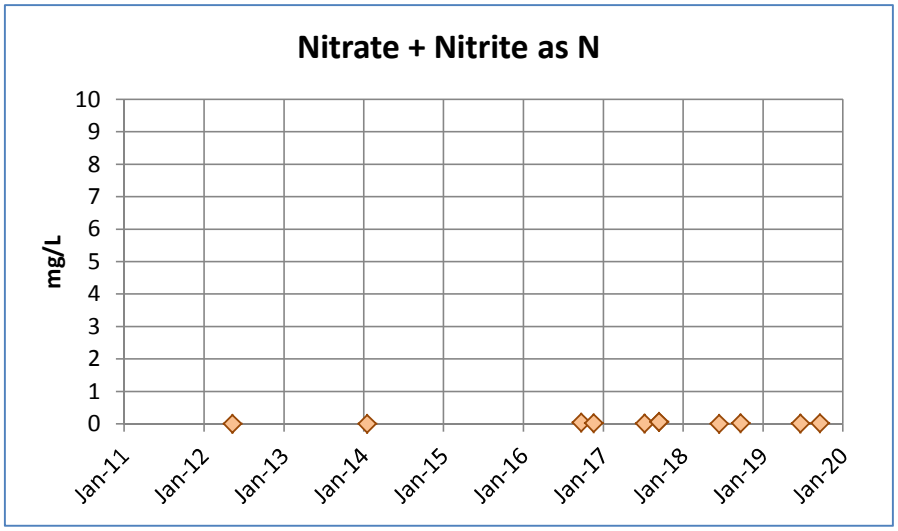
MW-20 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

PW-3





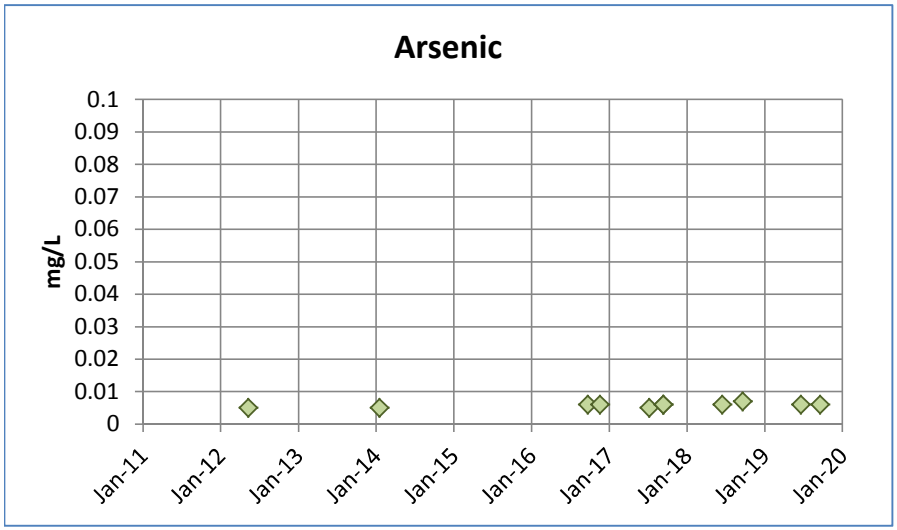


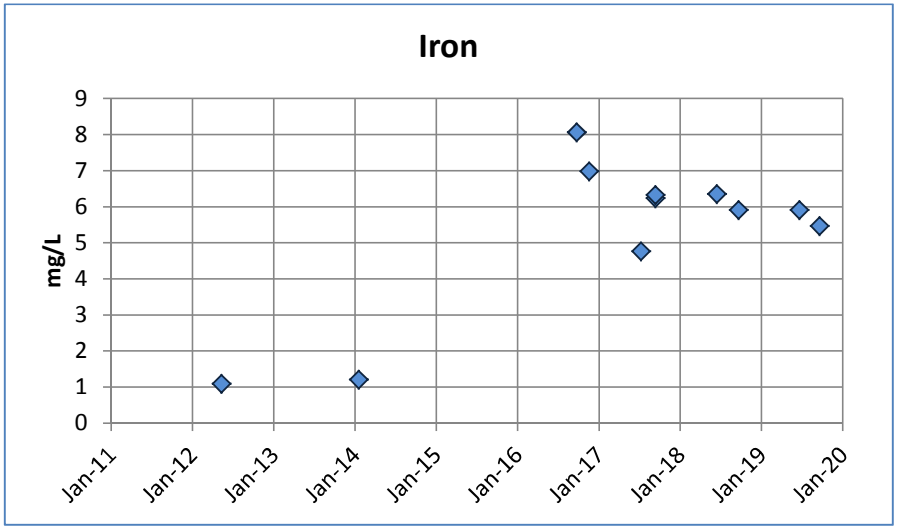


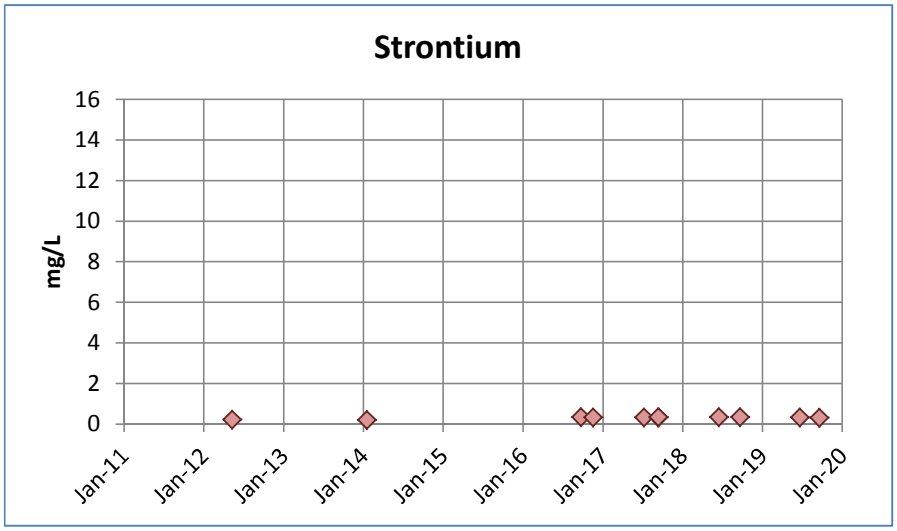
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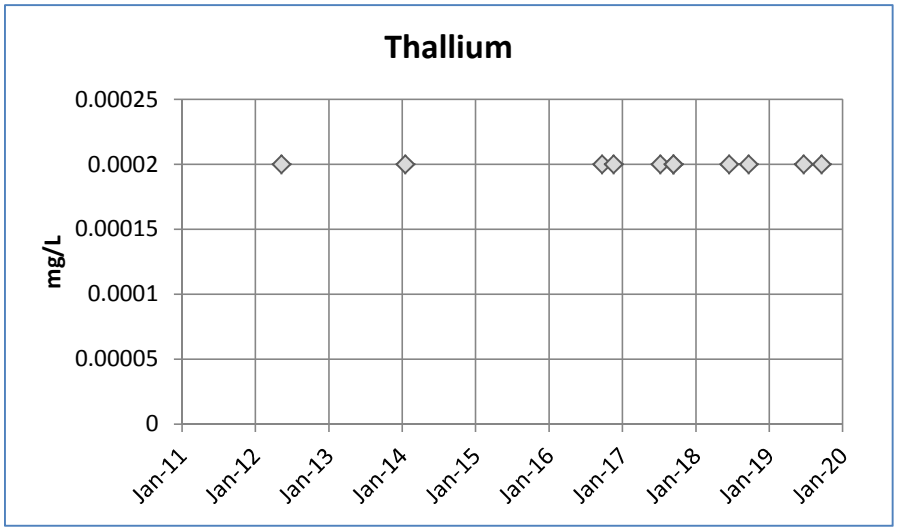
PW-3 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

PW-3





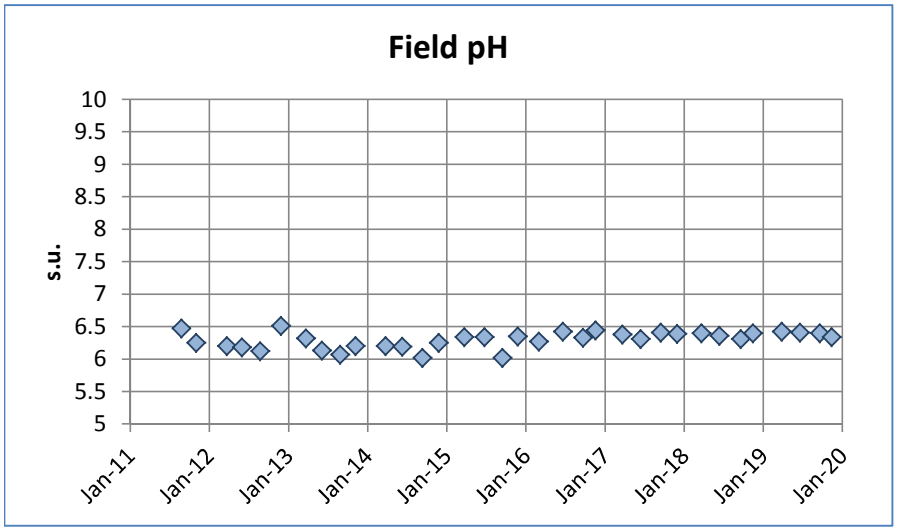


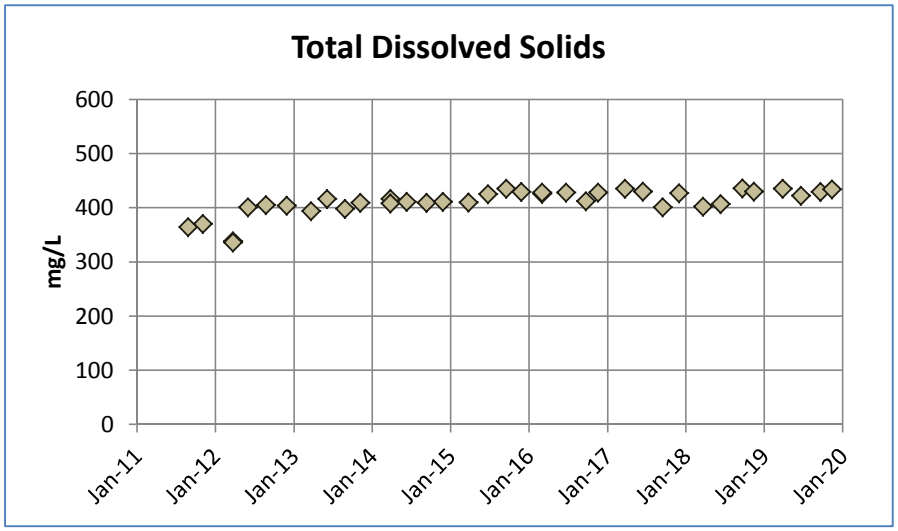


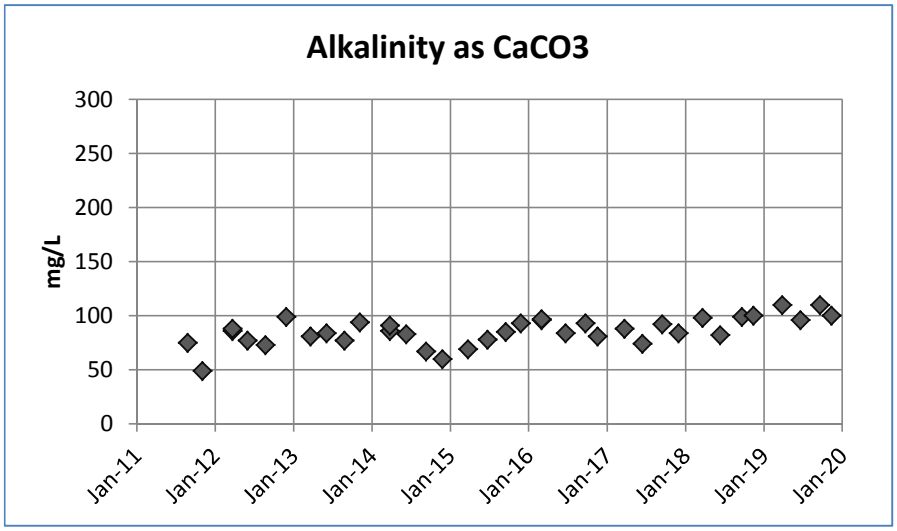
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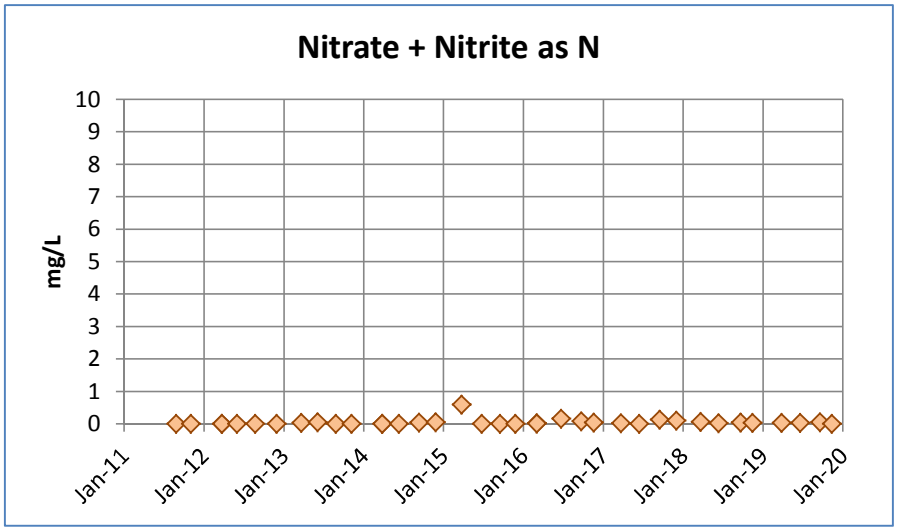
PW-3 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-1B





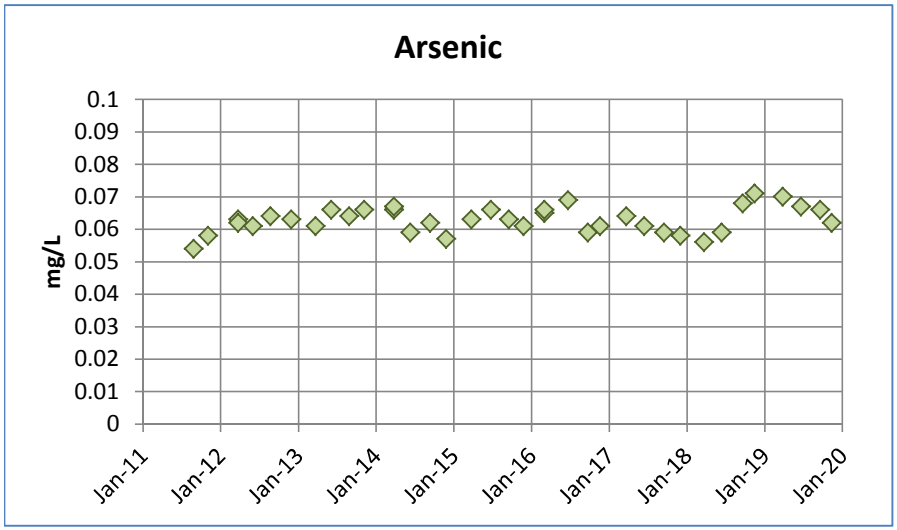


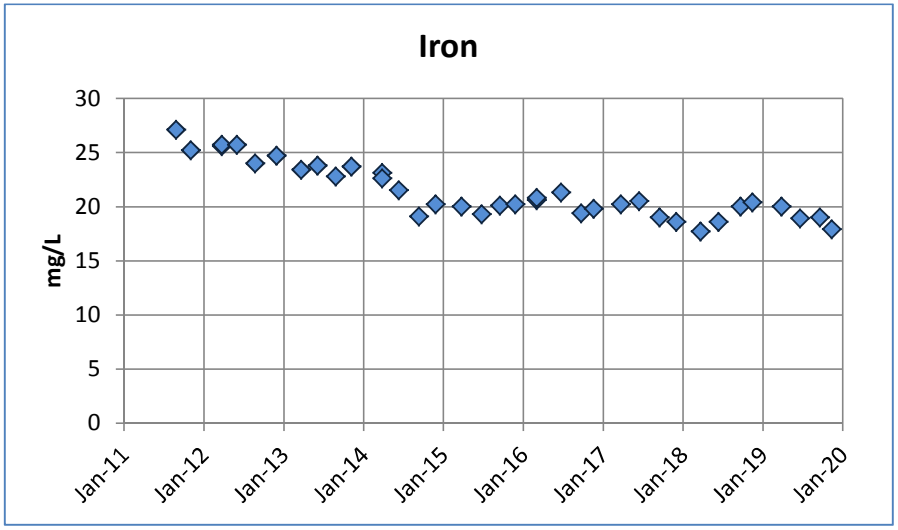


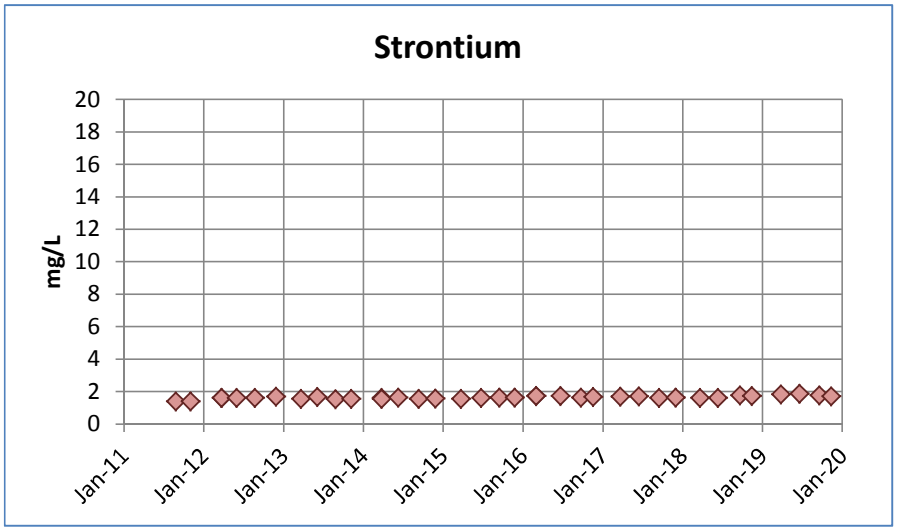
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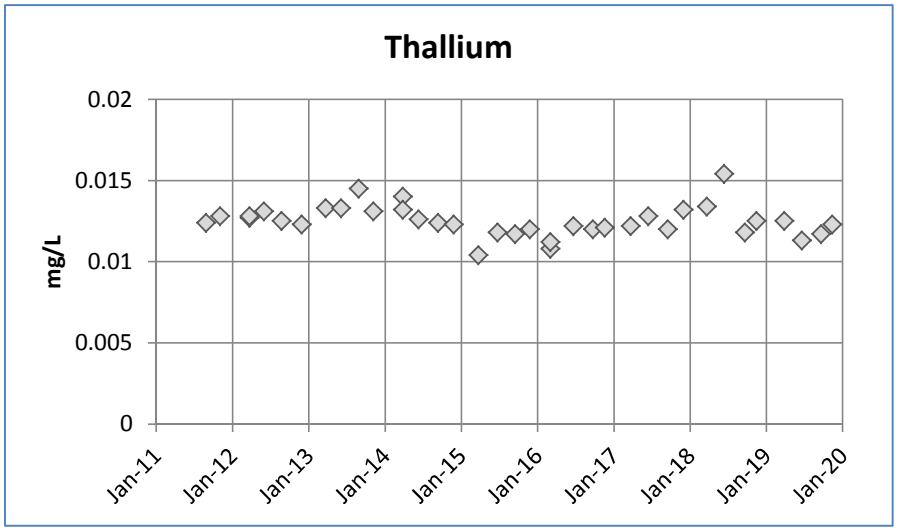
MW-1B Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-1B





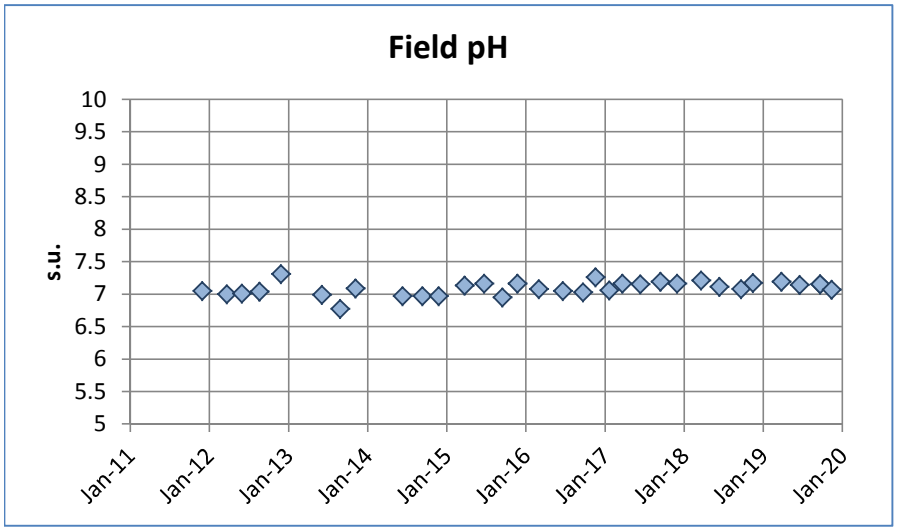


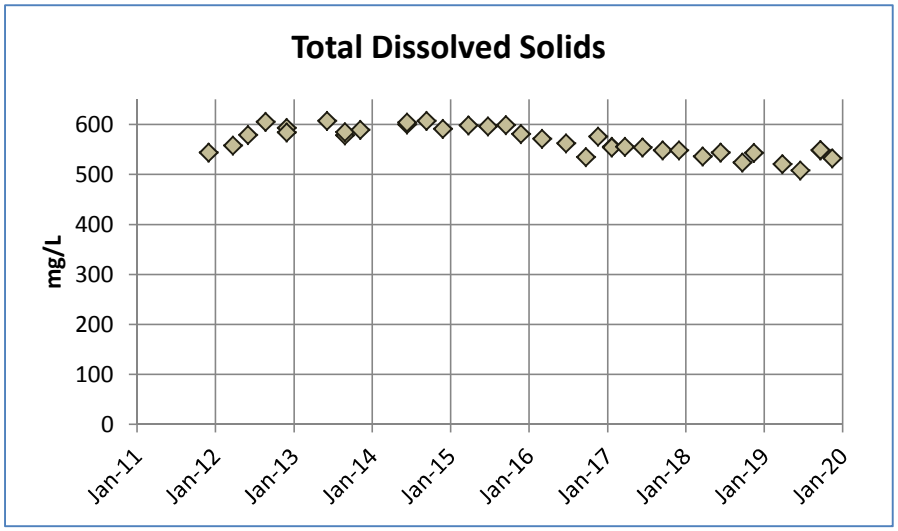


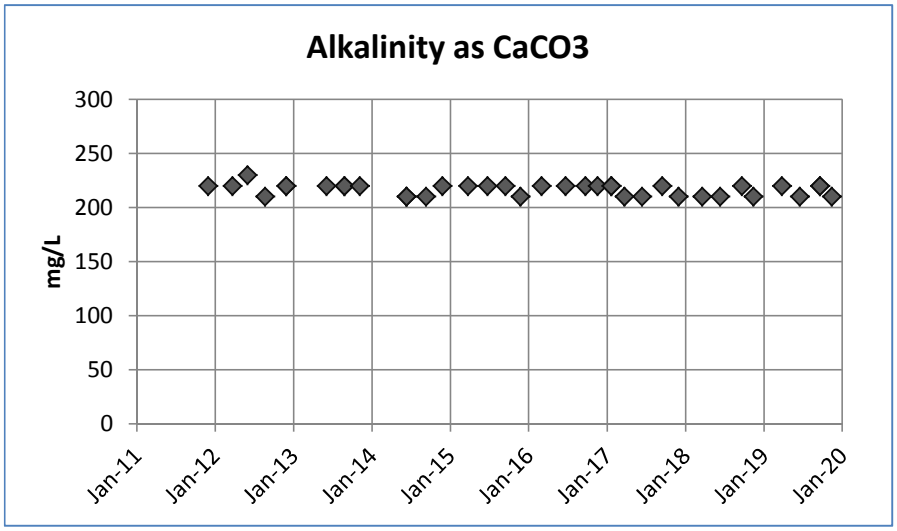
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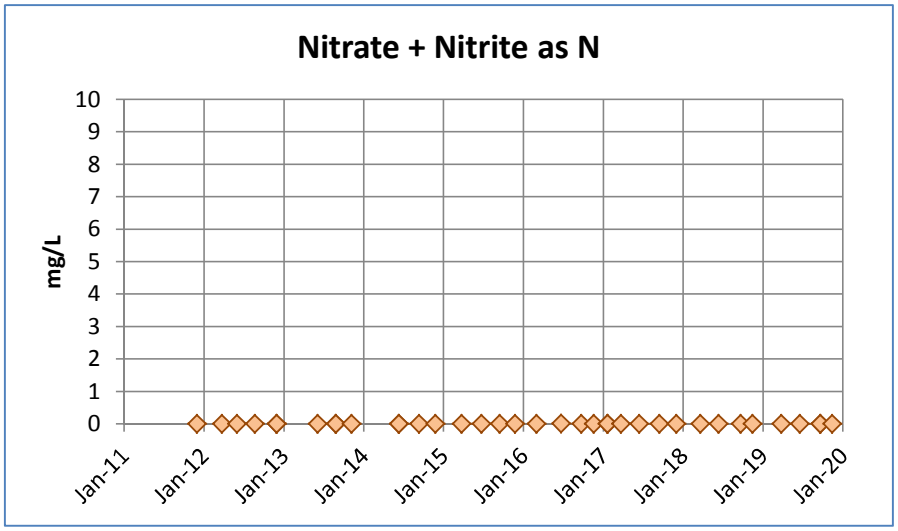
MW-1B Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-3





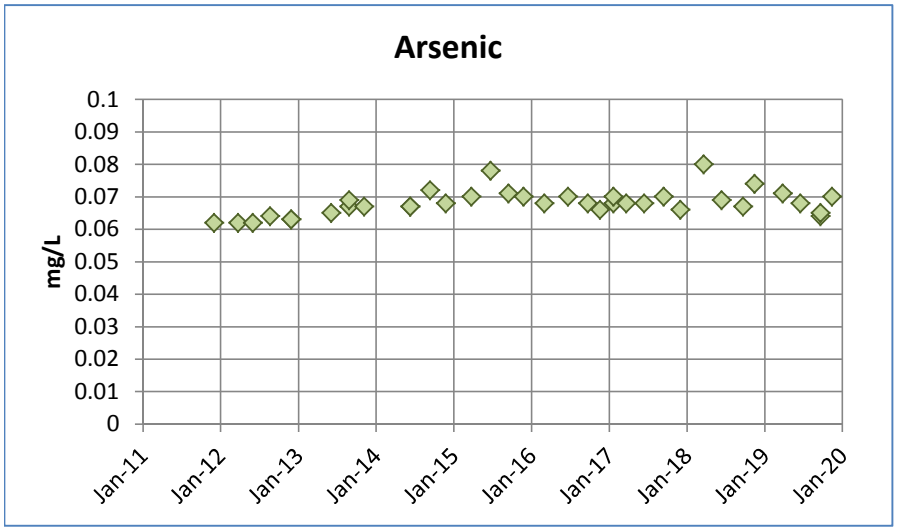


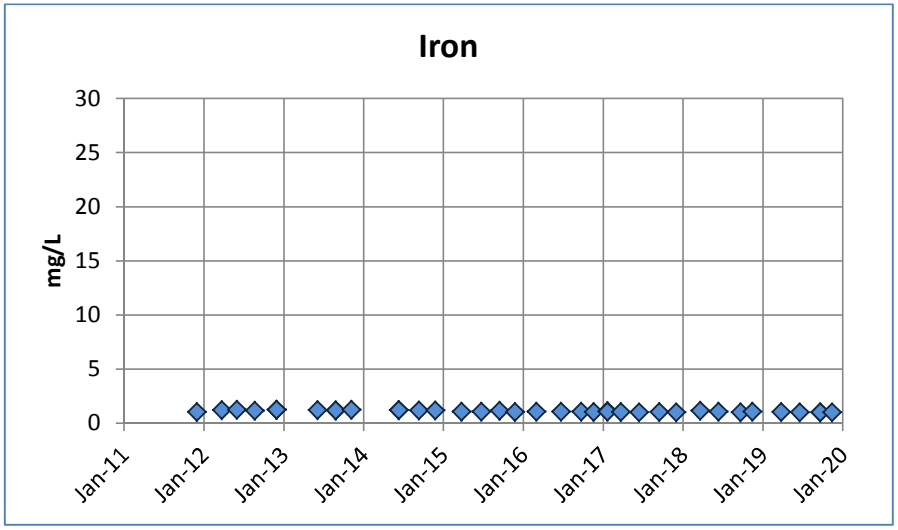


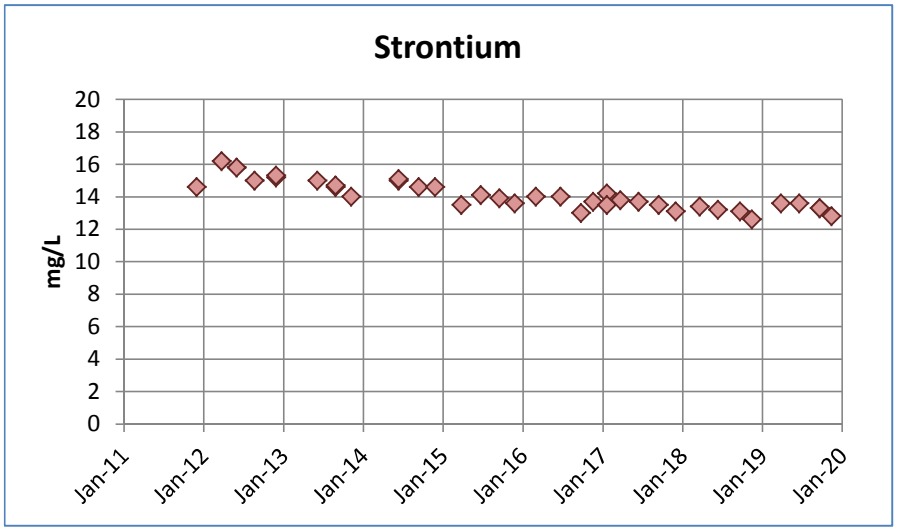
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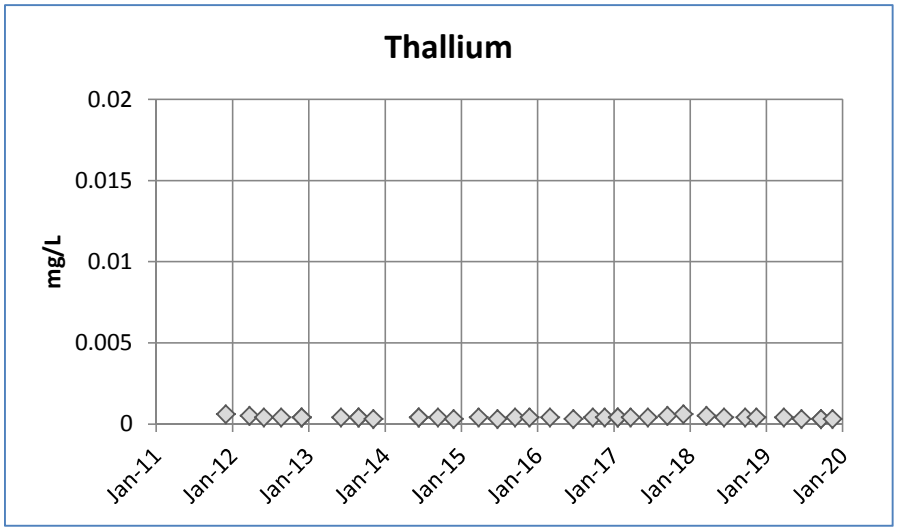
MW-3 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-3





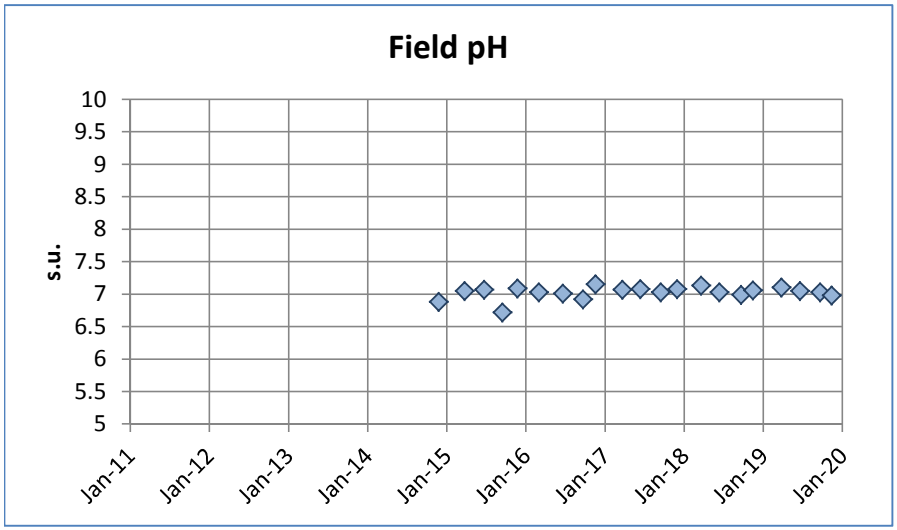


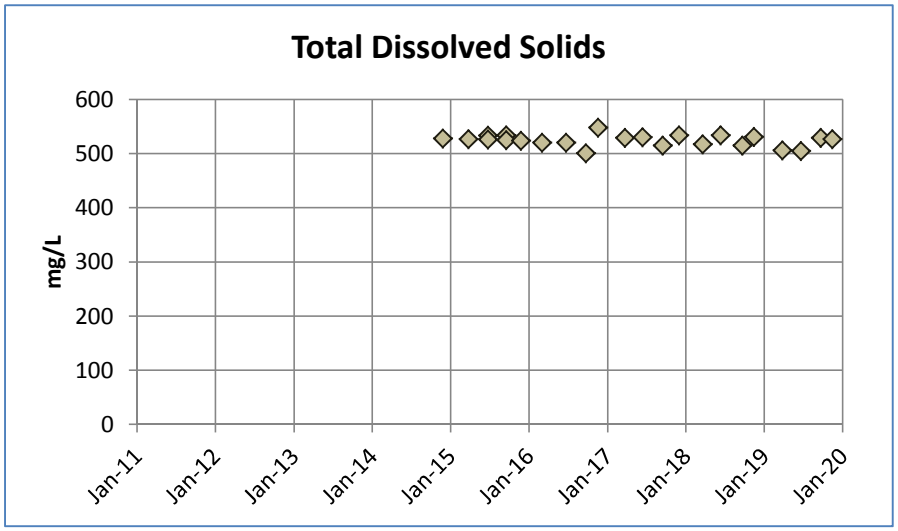


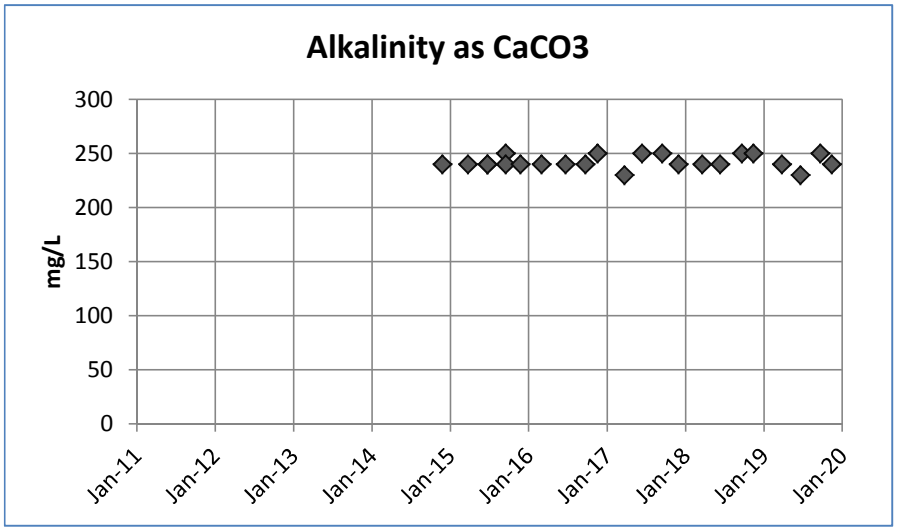
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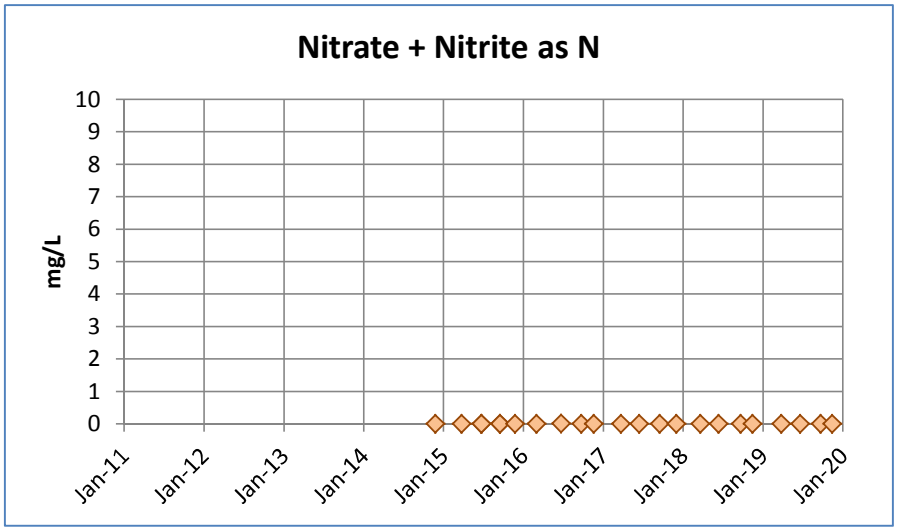
MW-3 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-9





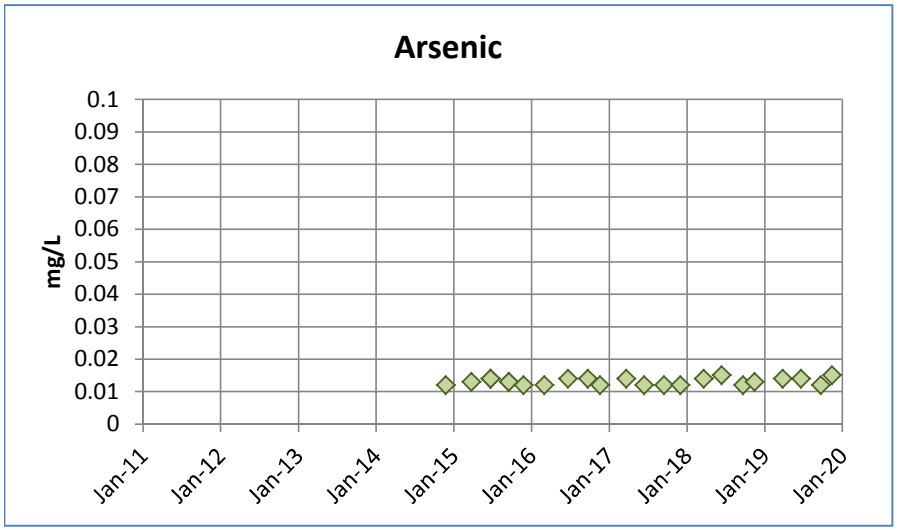


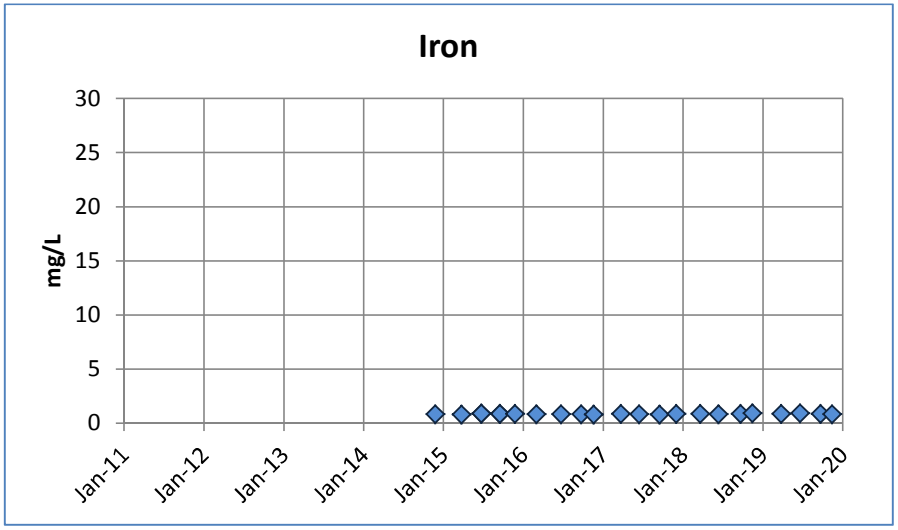


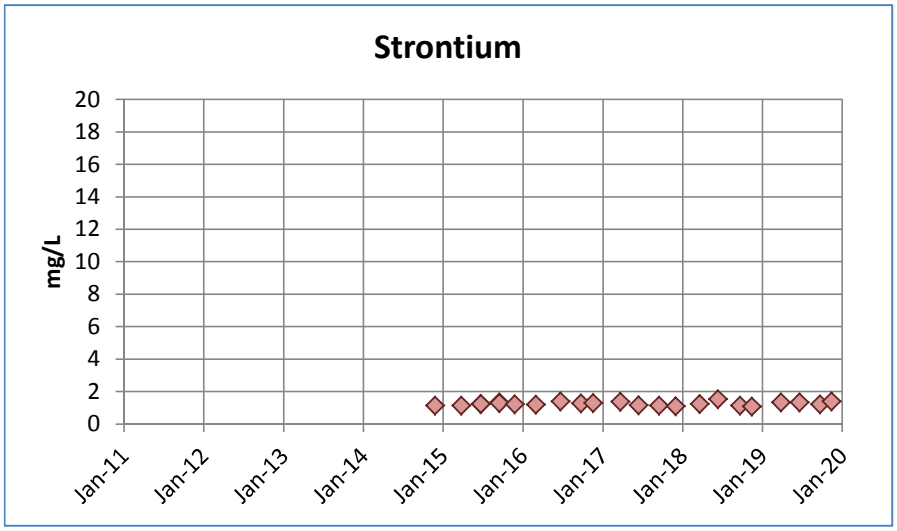
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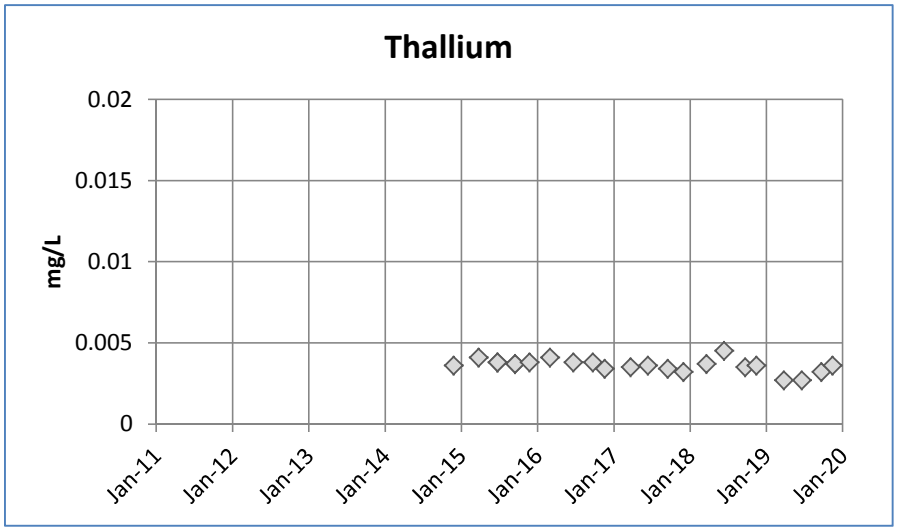
MW-9 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-9





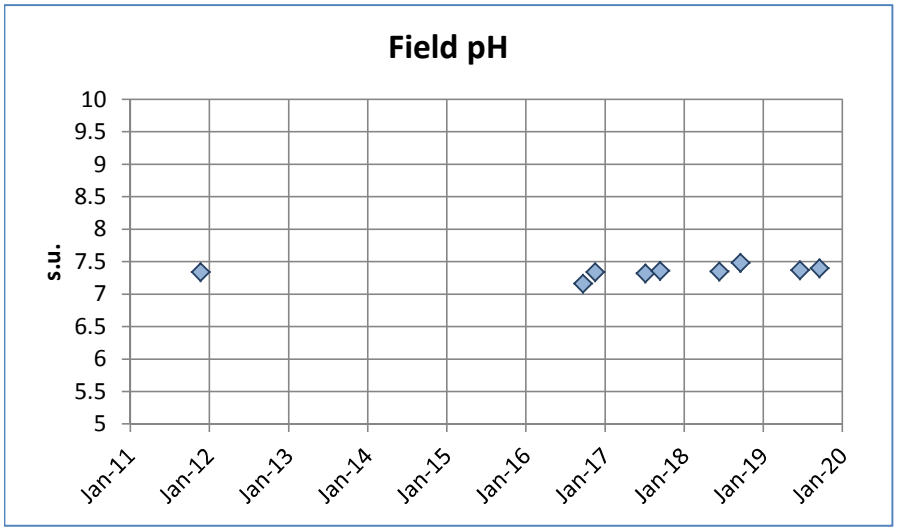


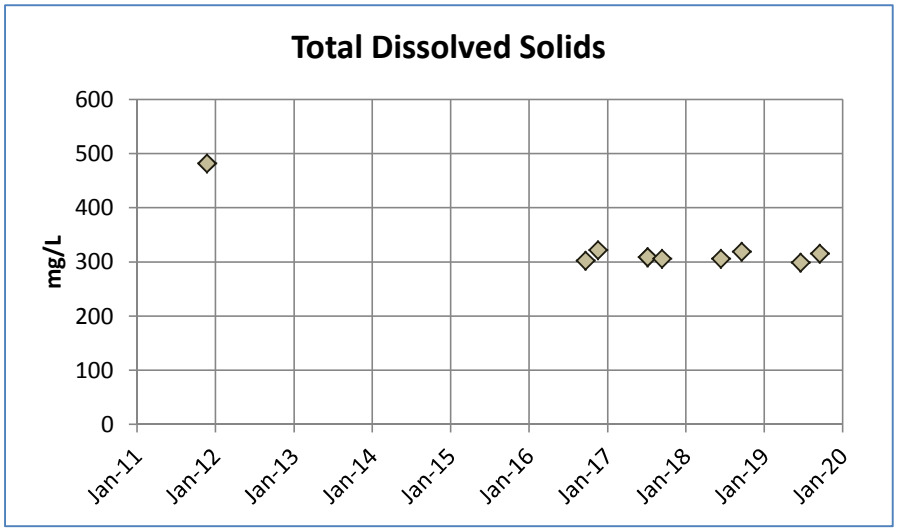


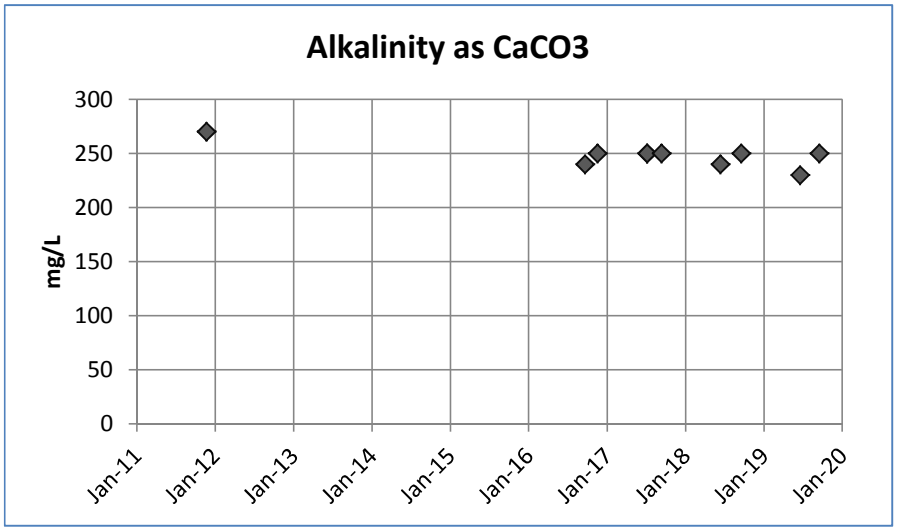
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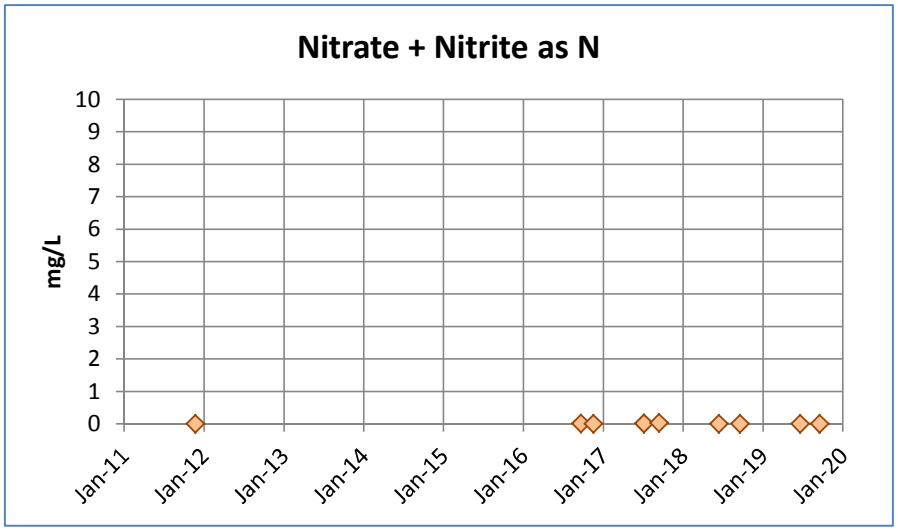
MW-9 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

PW-2





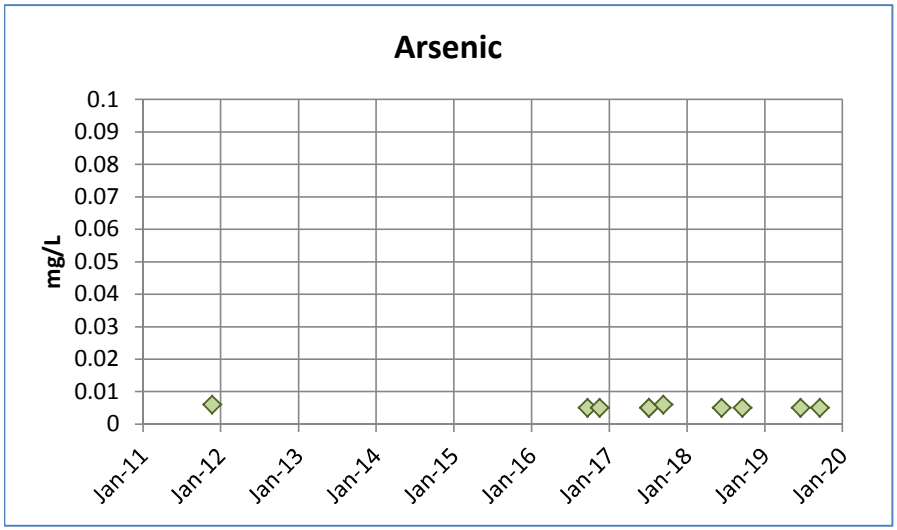


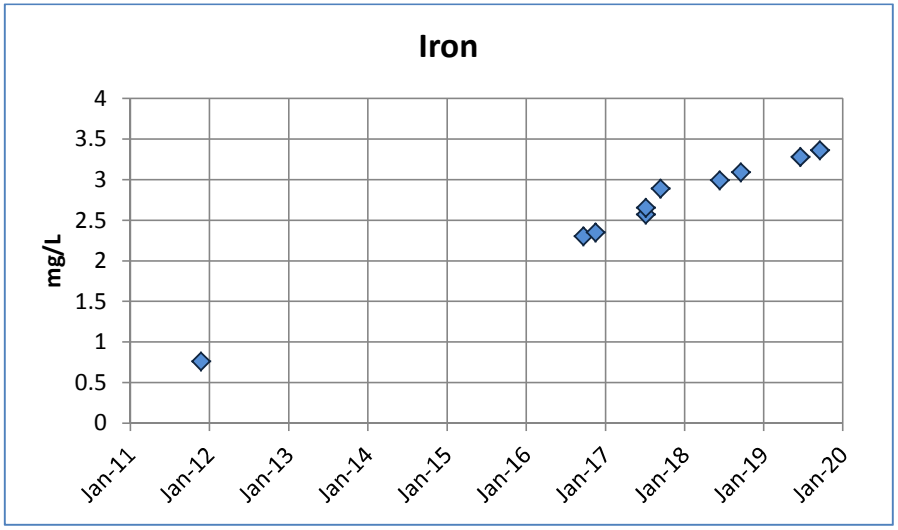


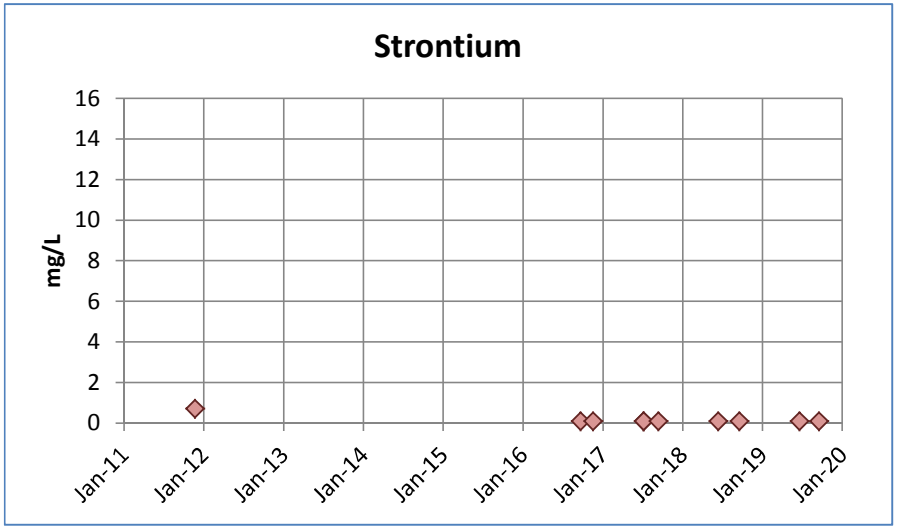
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Consulting Scientists and Engineers

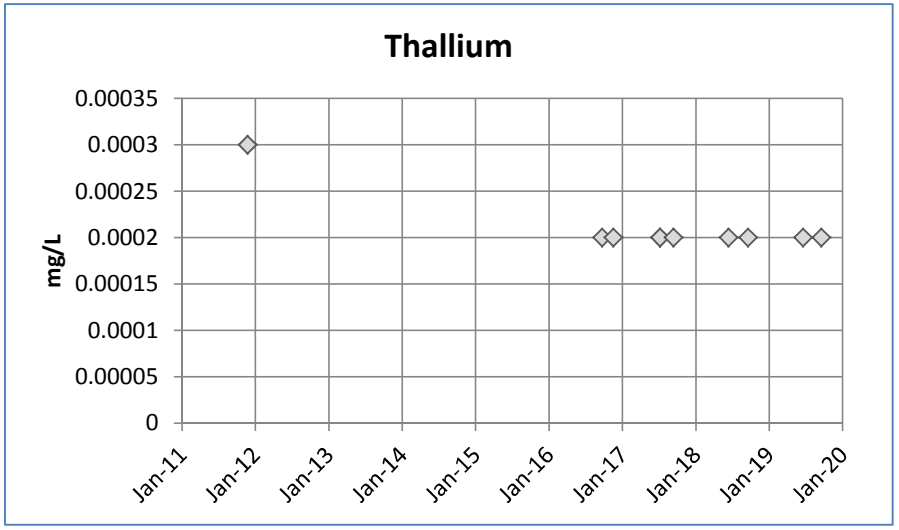
PW-2 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

PW-2





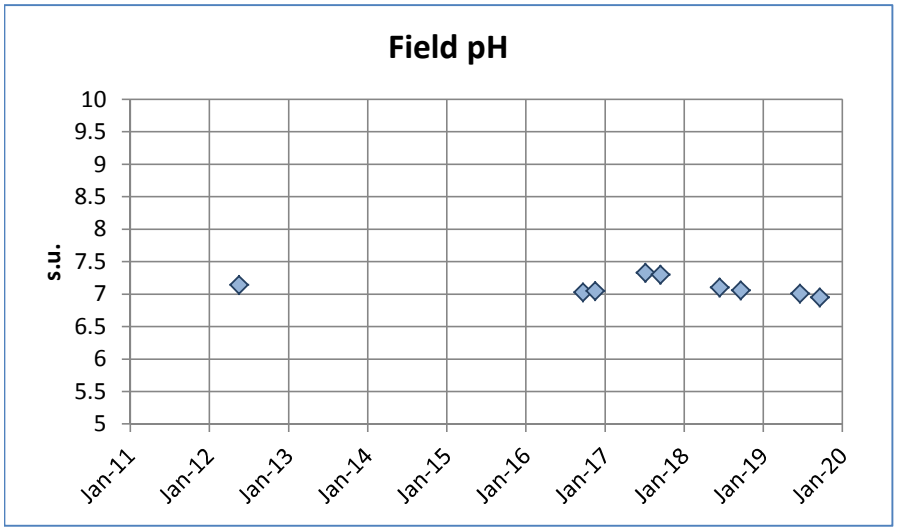


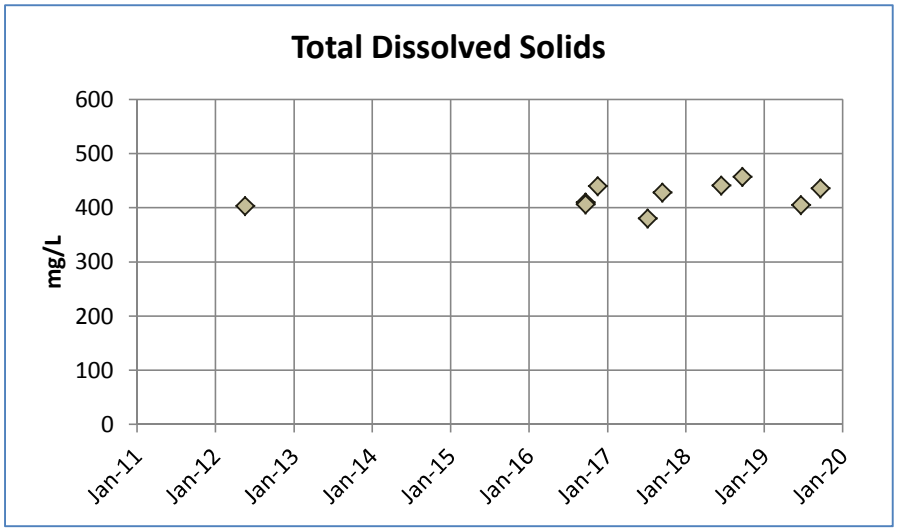


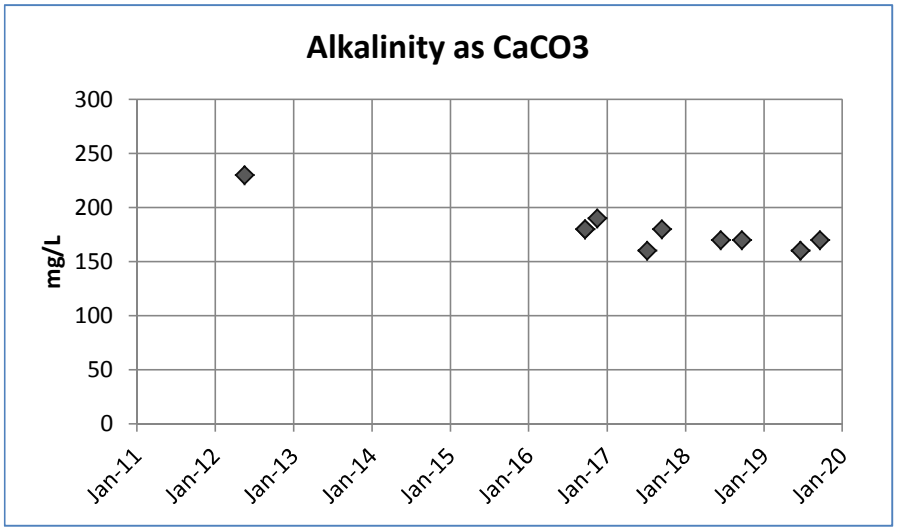
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Consulting Scientists and Engineers

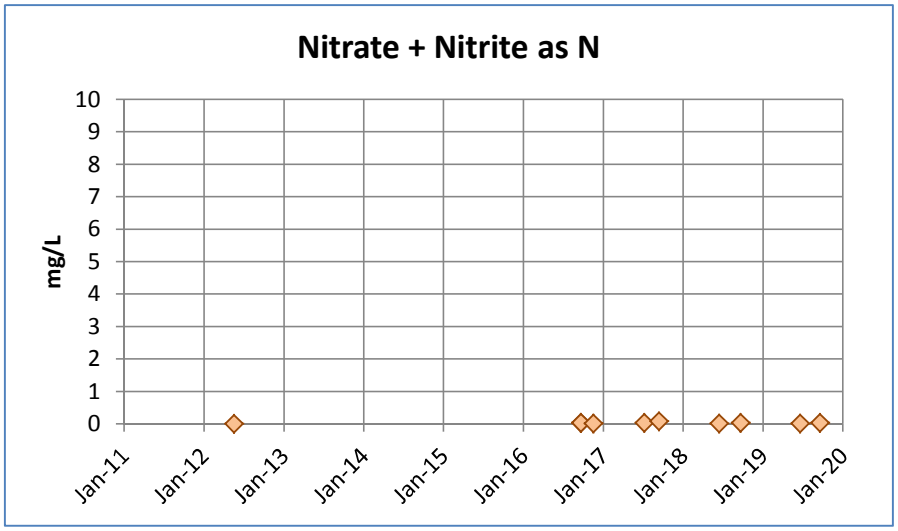
PW-2 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

PW-4





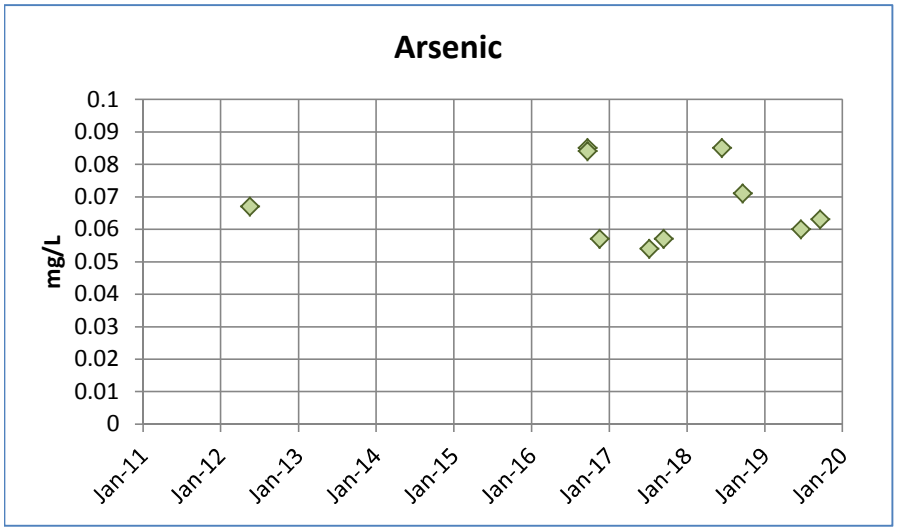


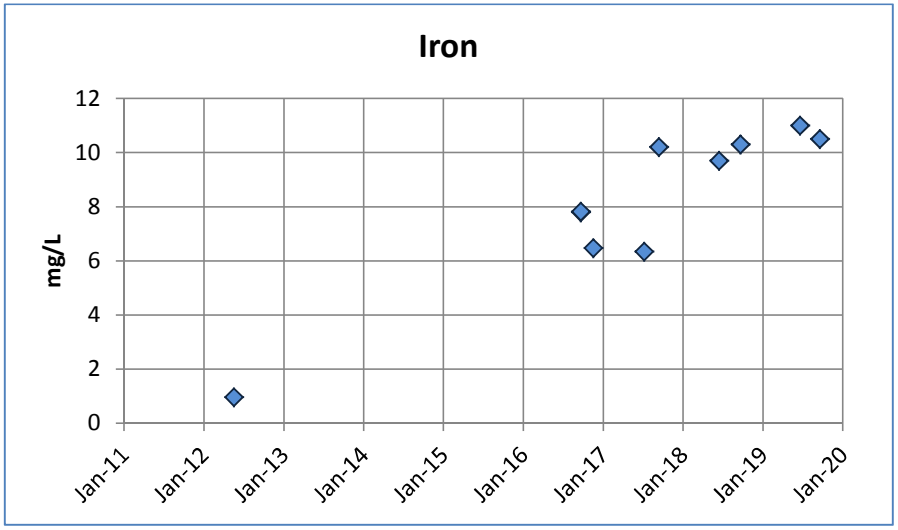


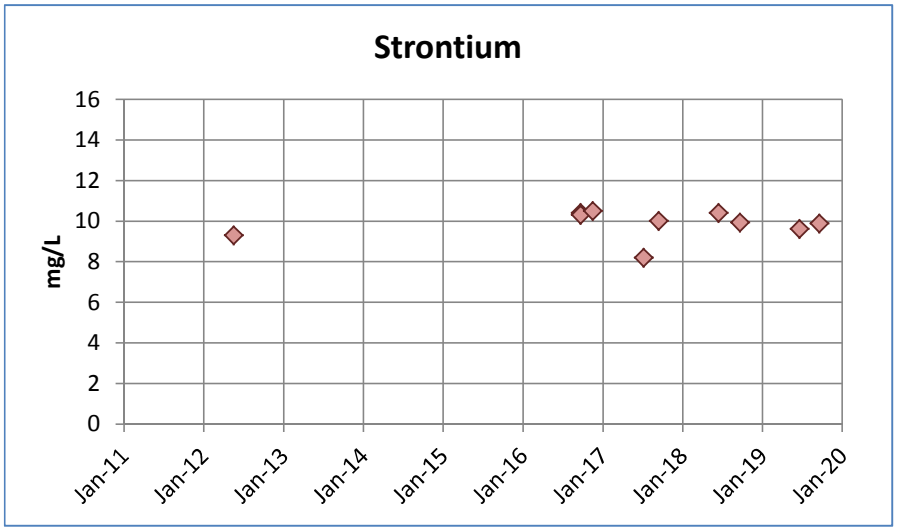
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Consulting Scientists and Engineers

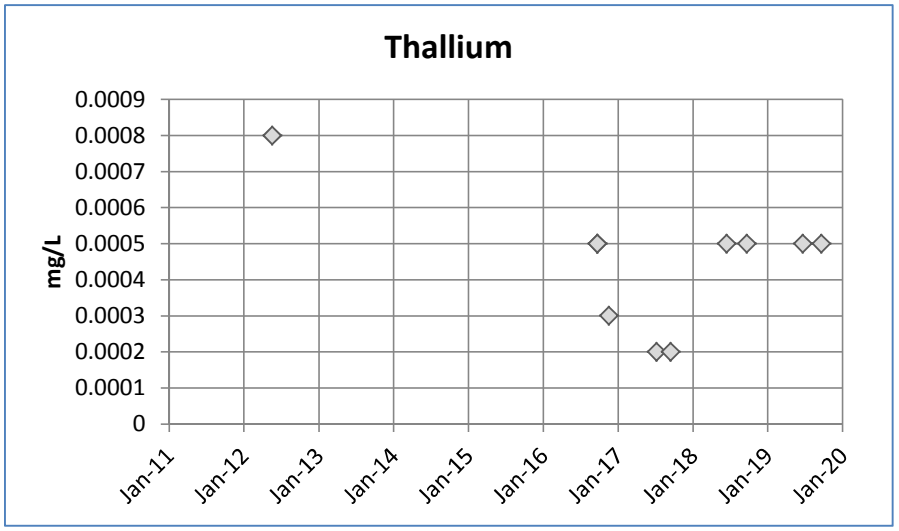
PW-4 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

PW-4





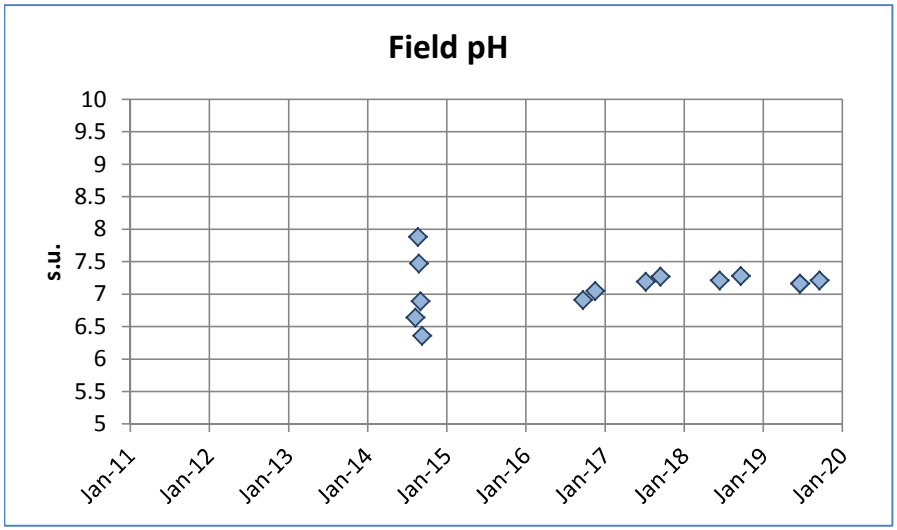


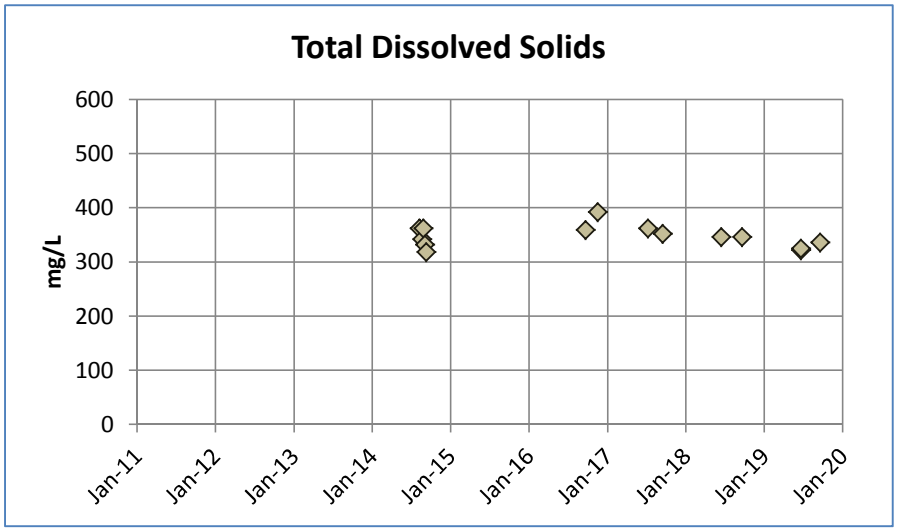


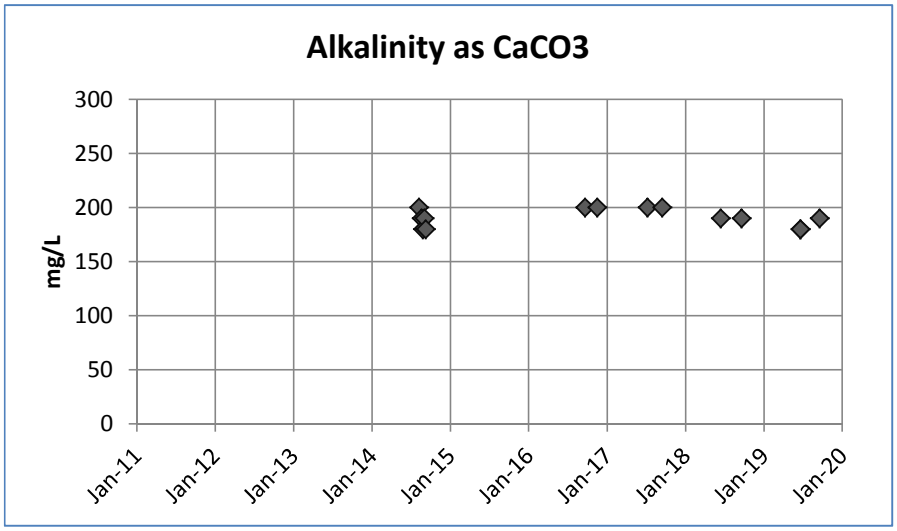
Hydrometrics, Inc.
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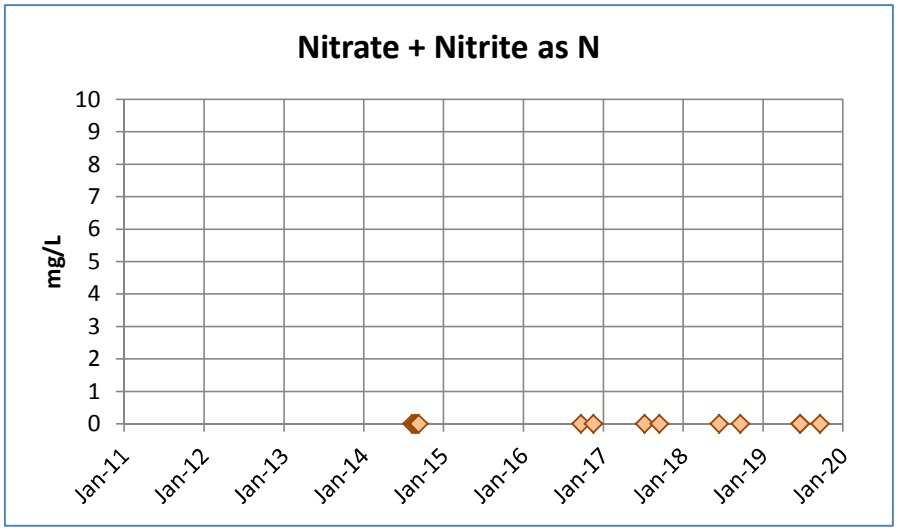
PW-4 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

PW-8





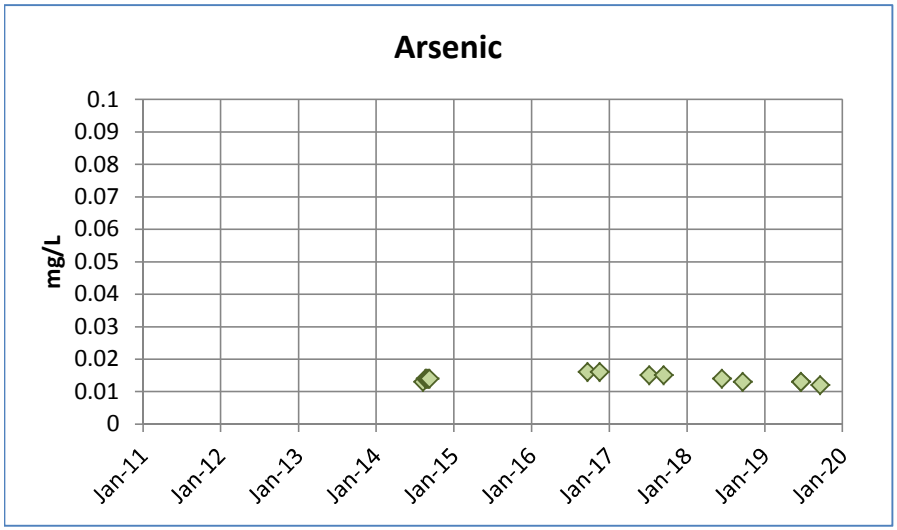


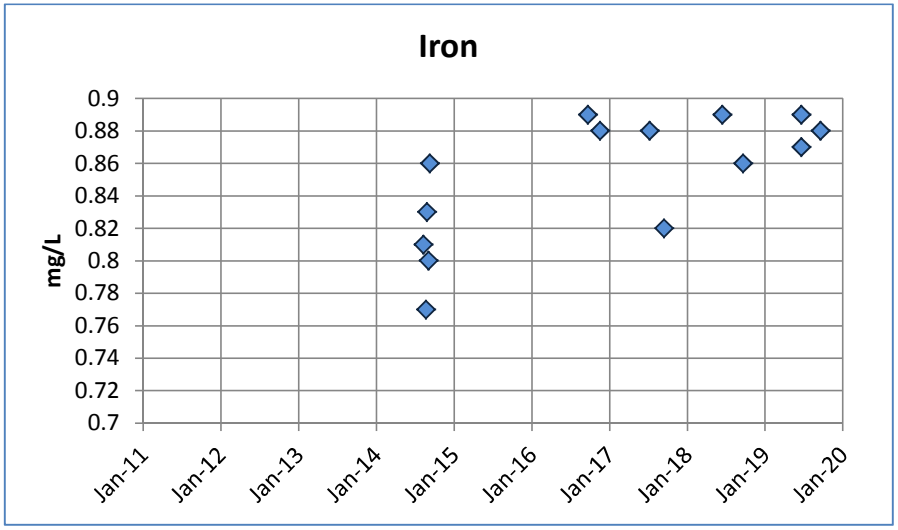


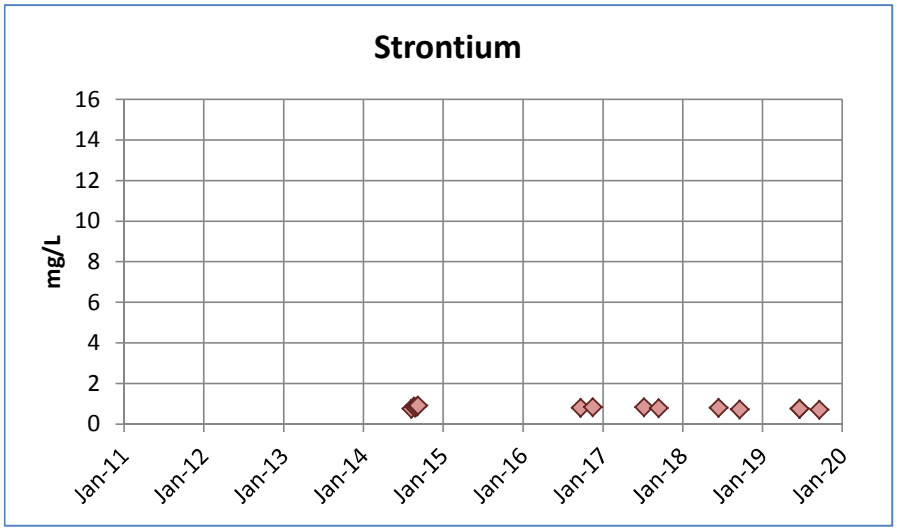
Hydrometrics, Inc.
Consulting Scientists and Engineers

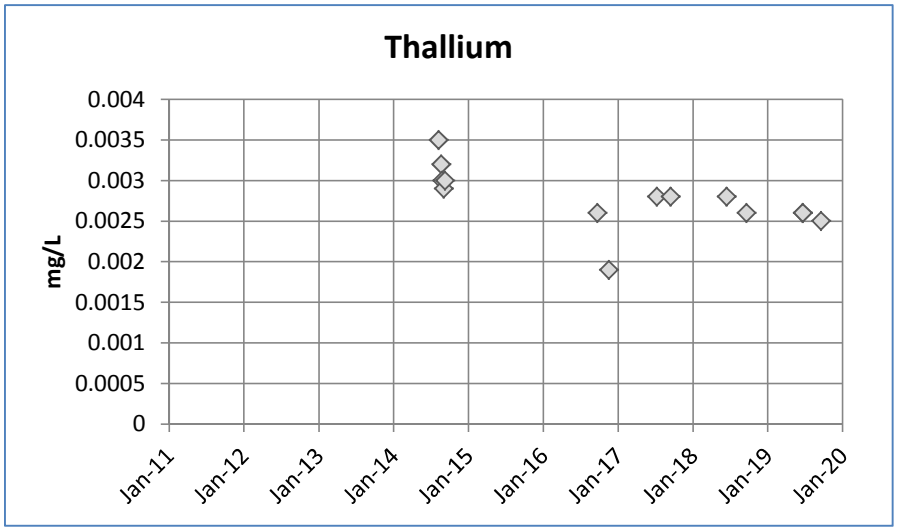
PW-8 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

PW-8





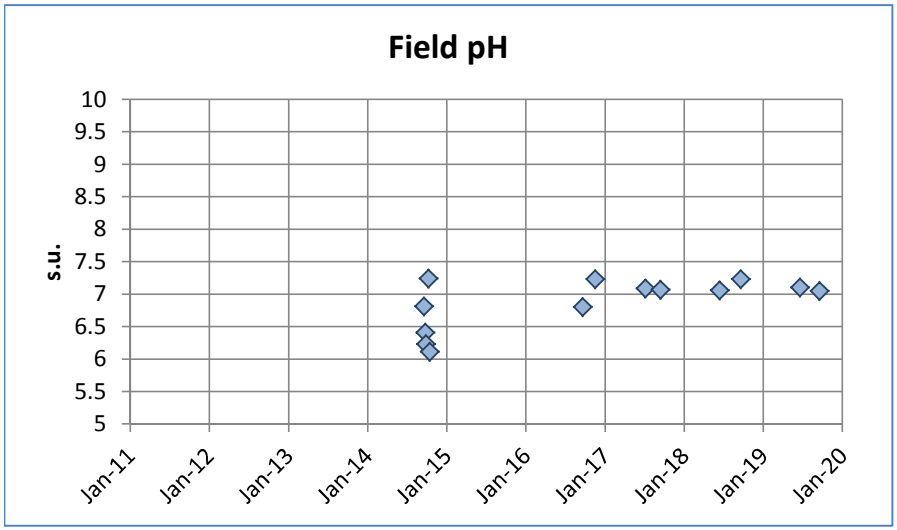


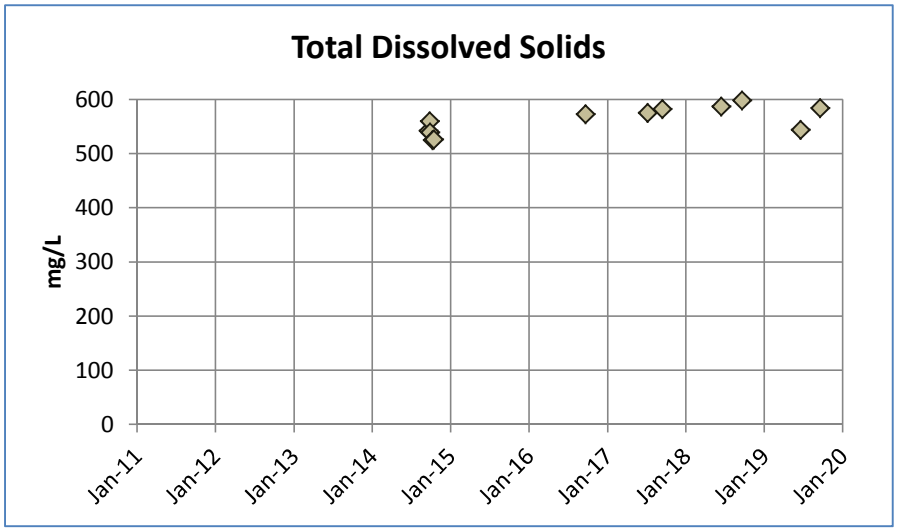


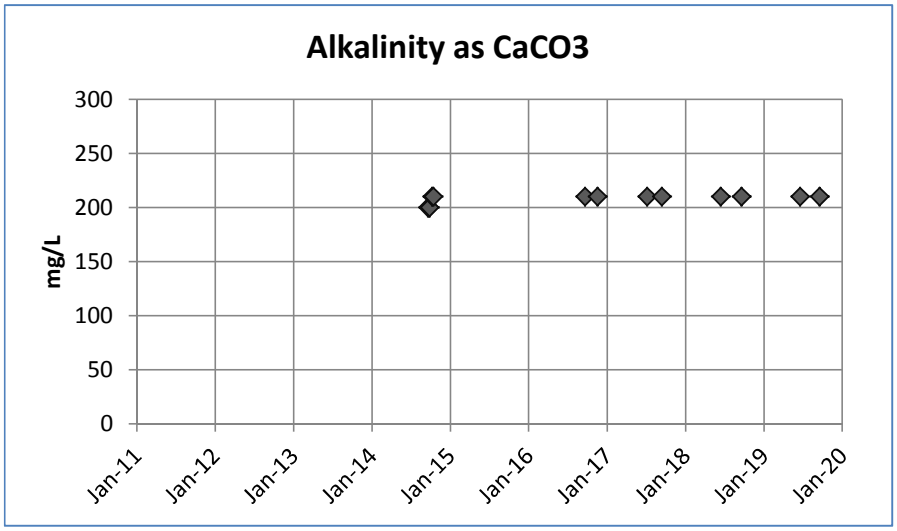
Hydrometrics, Inc.
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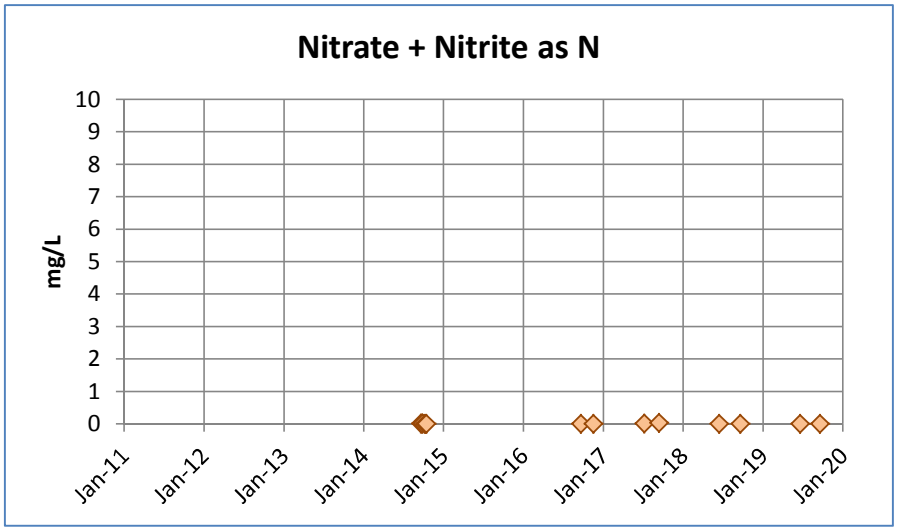
PW-8 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

PW-9





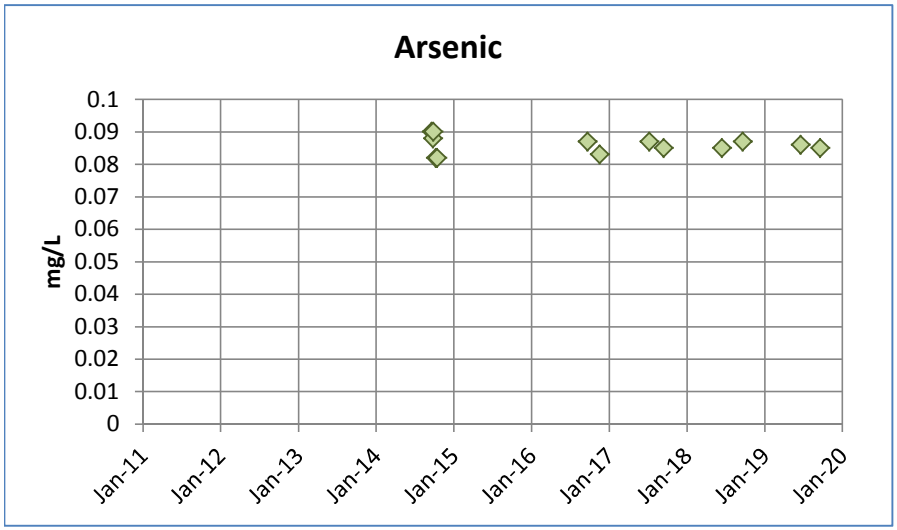


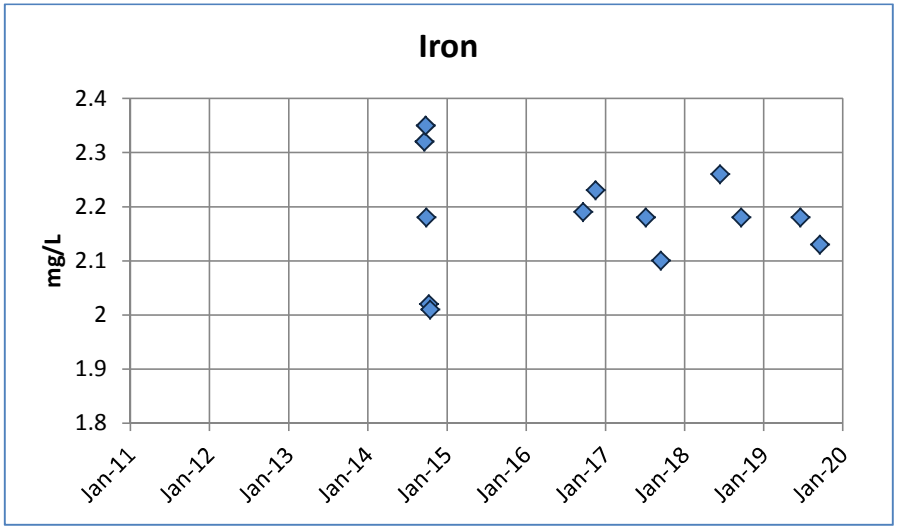


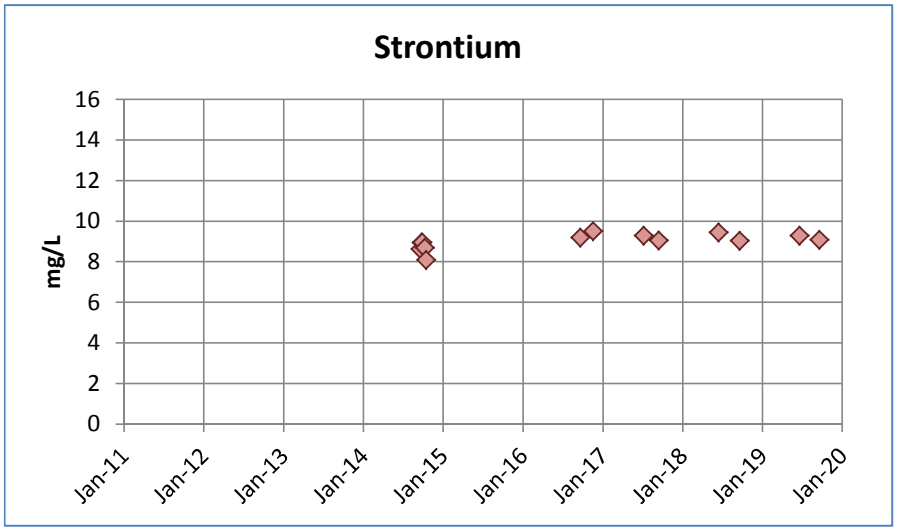
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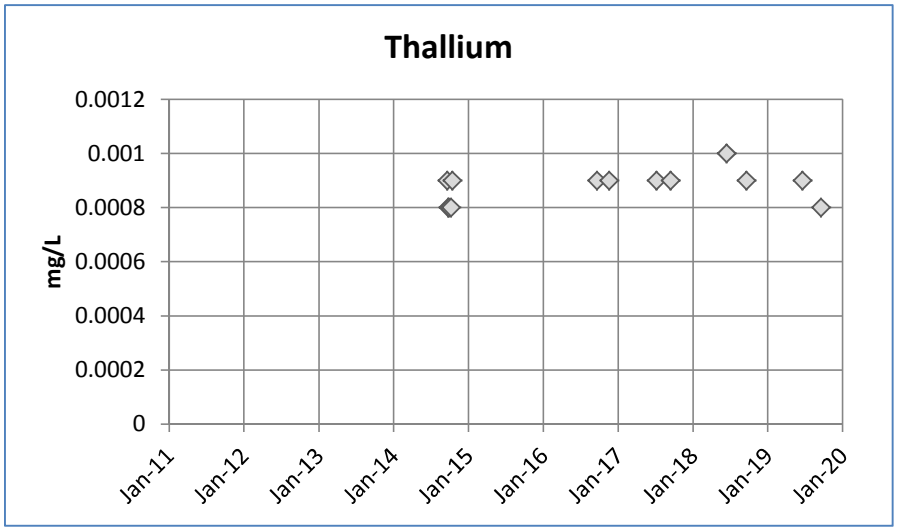
PW-9 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

PW-9





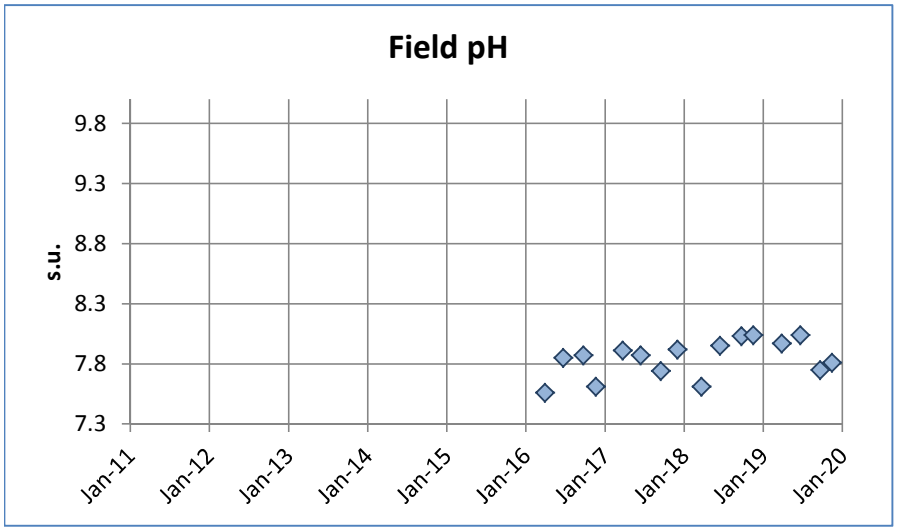


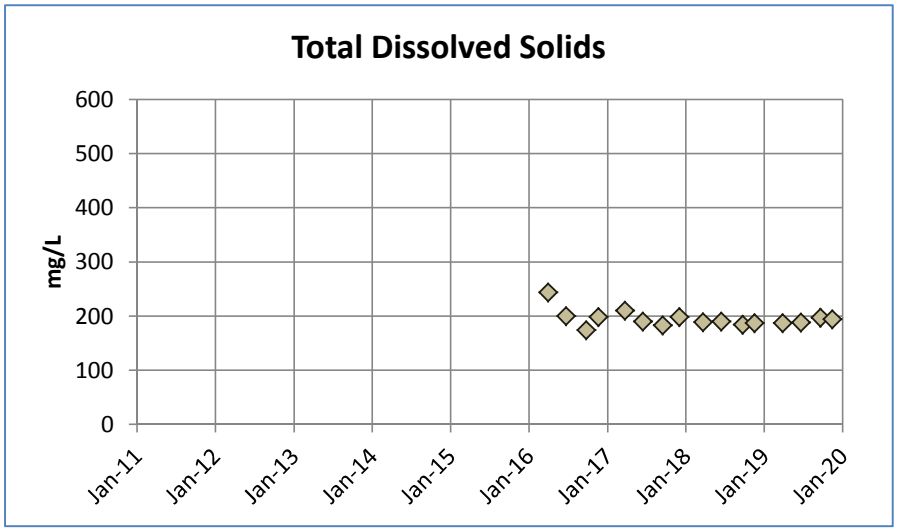


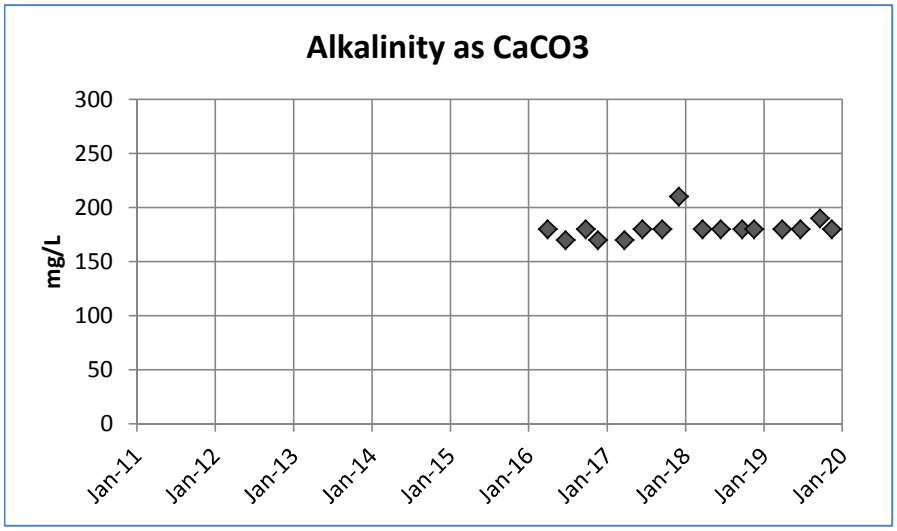
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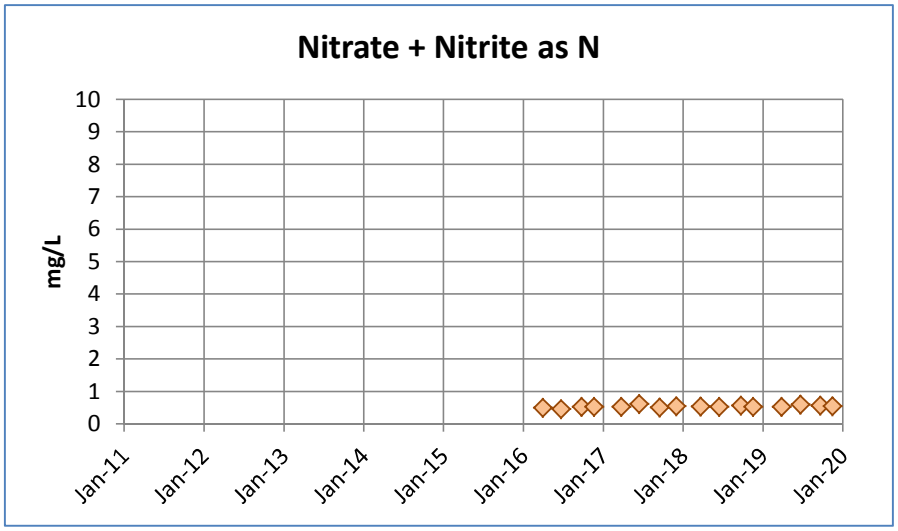
PW-9 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-10





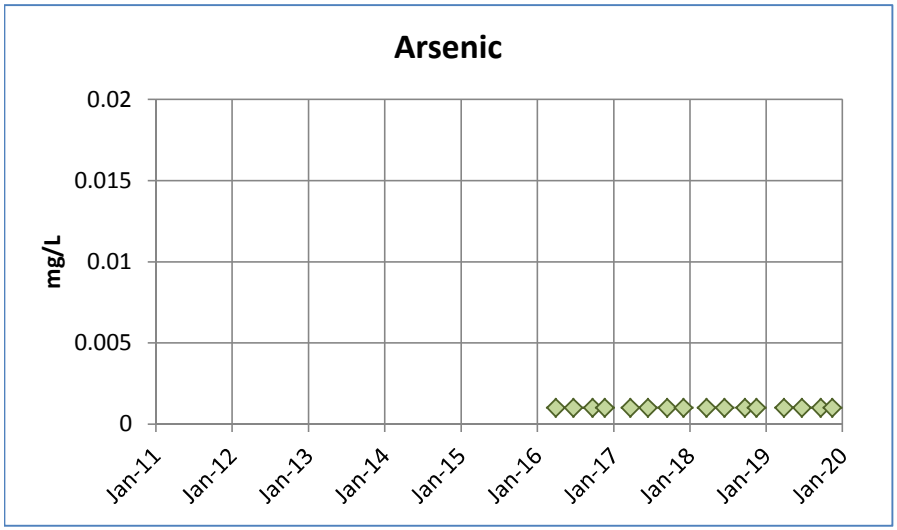


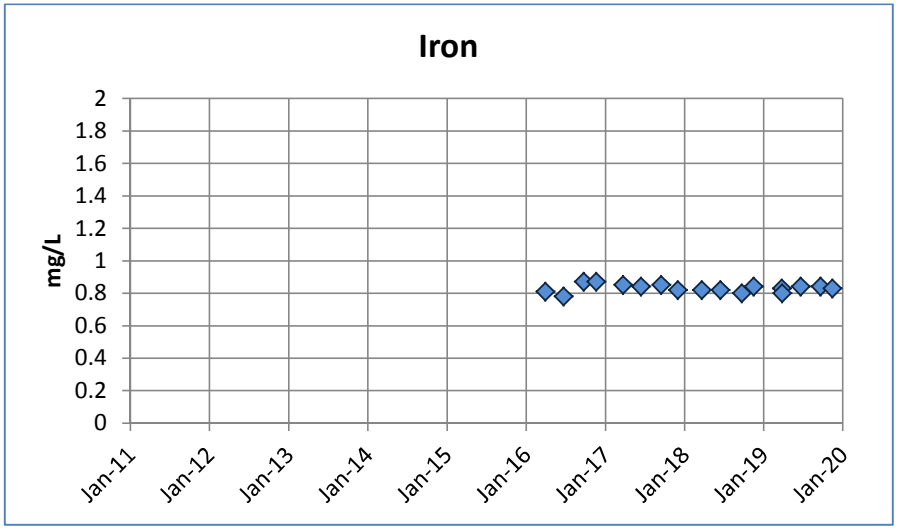


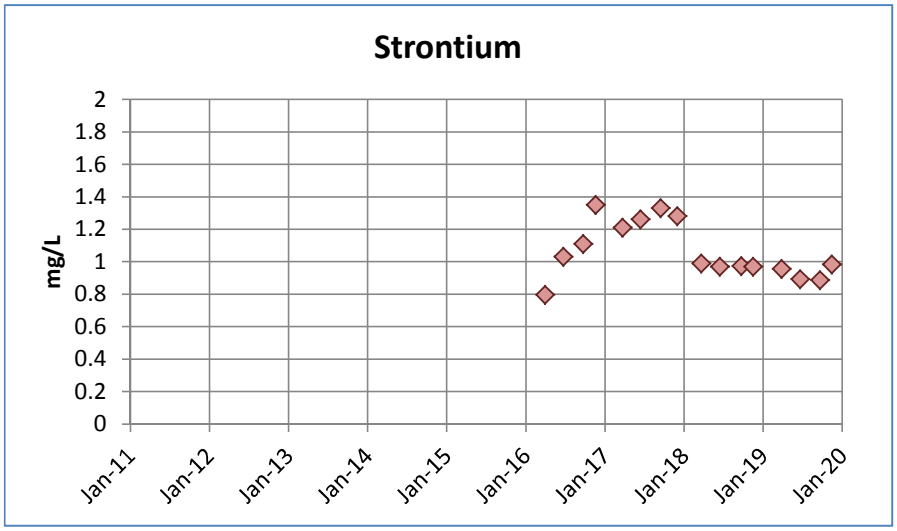
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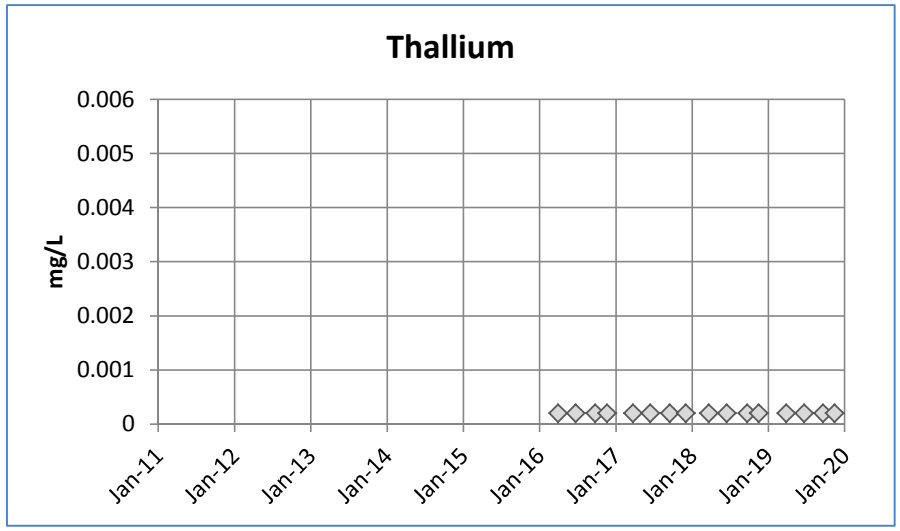
MW-10 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-10





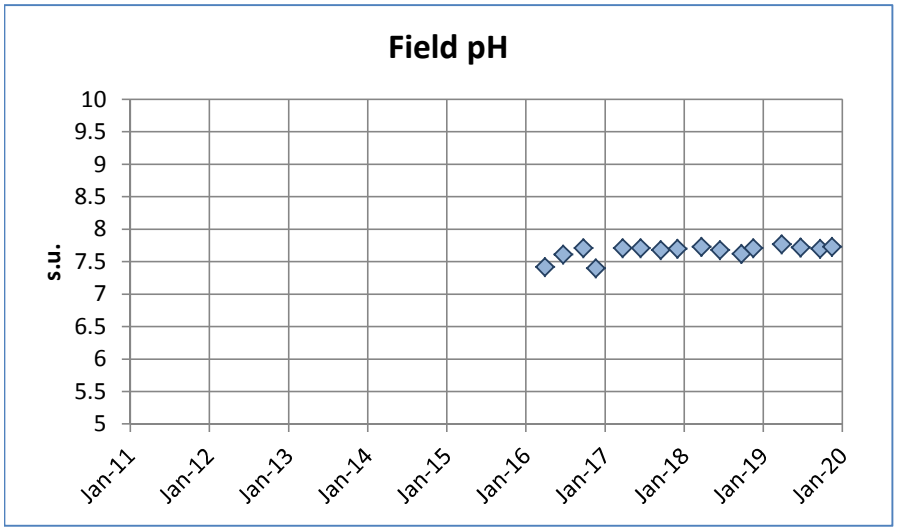


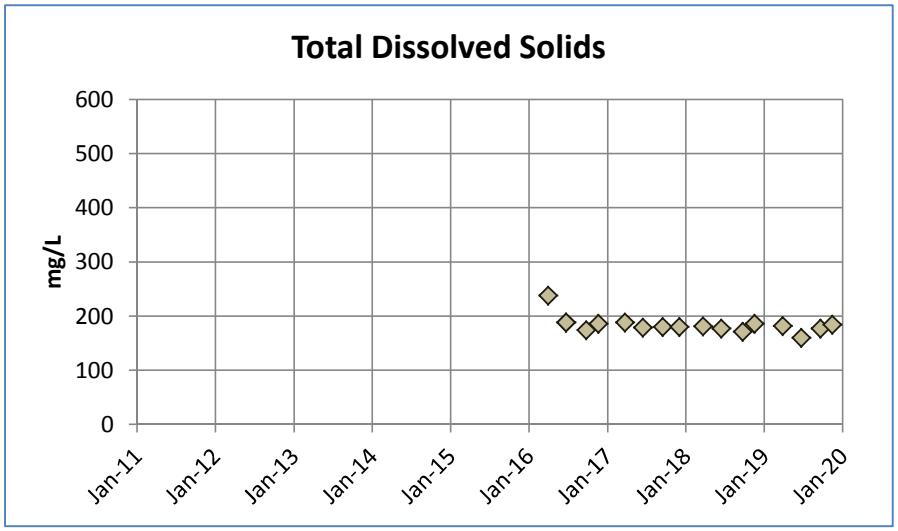


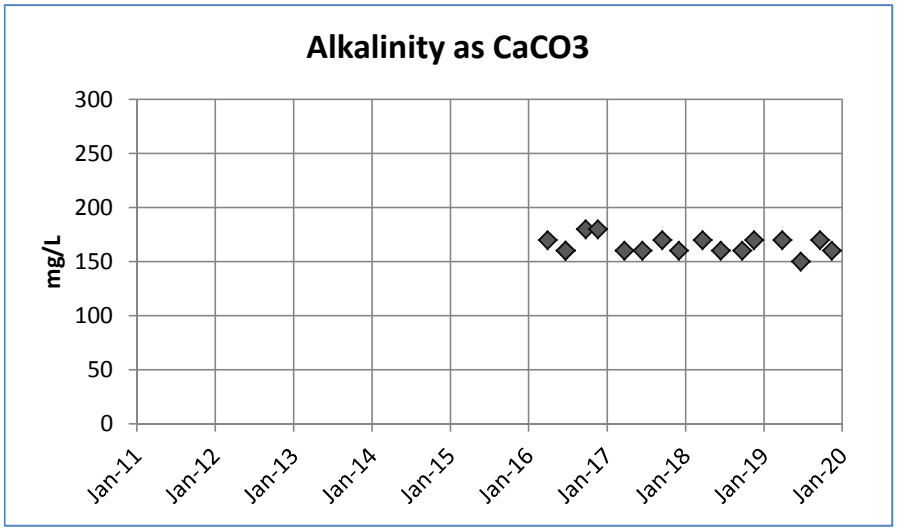
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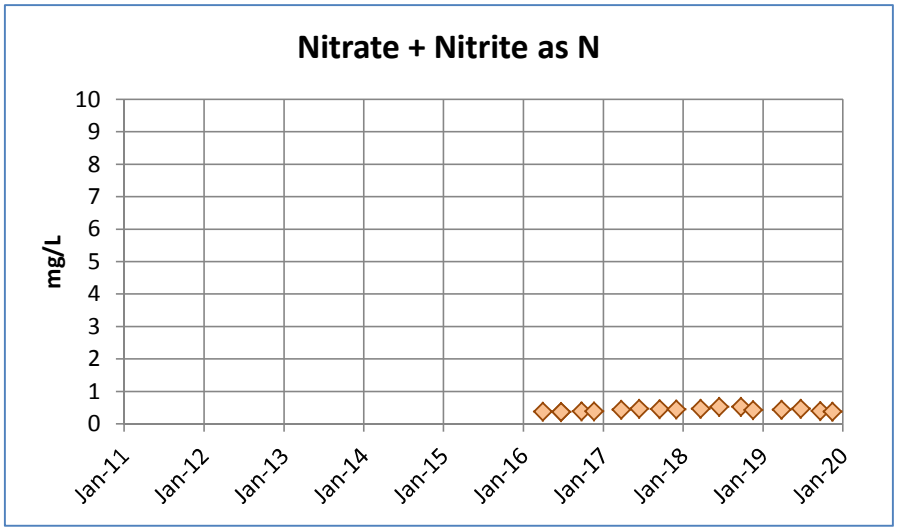
MW-10 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-11





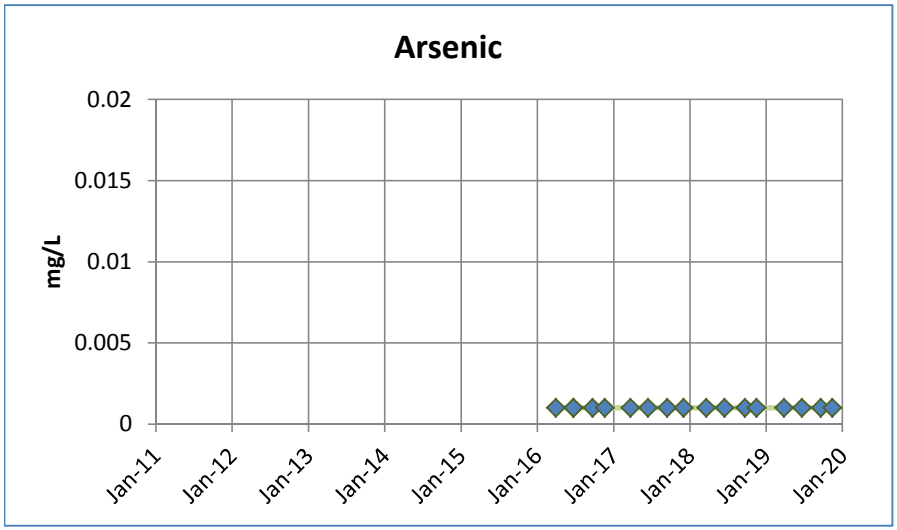


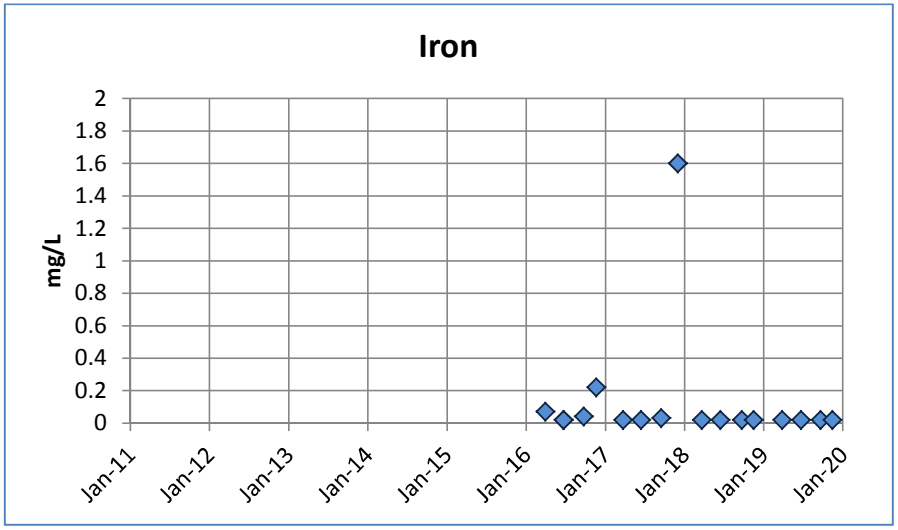


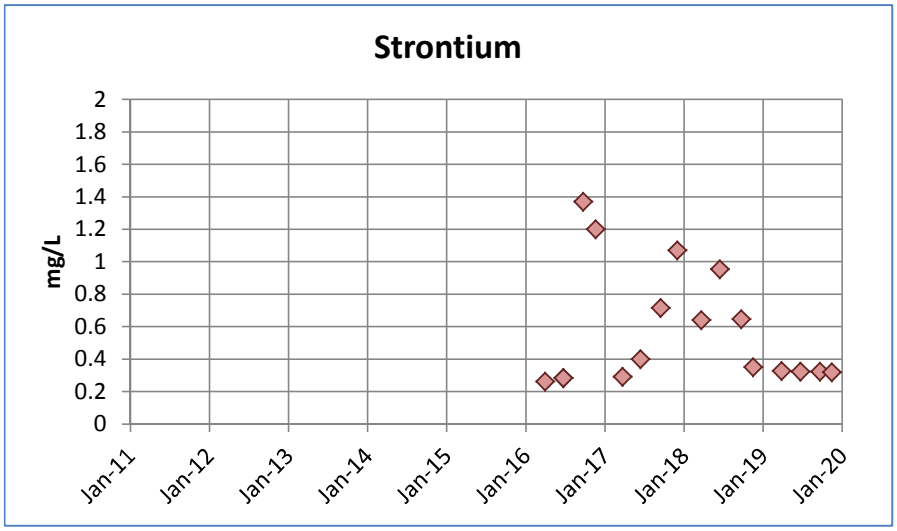
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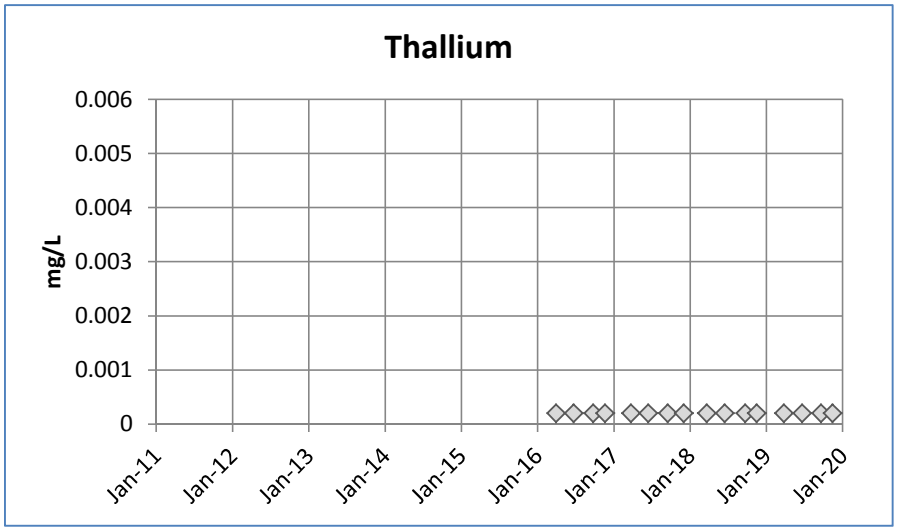
MW-11 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-11





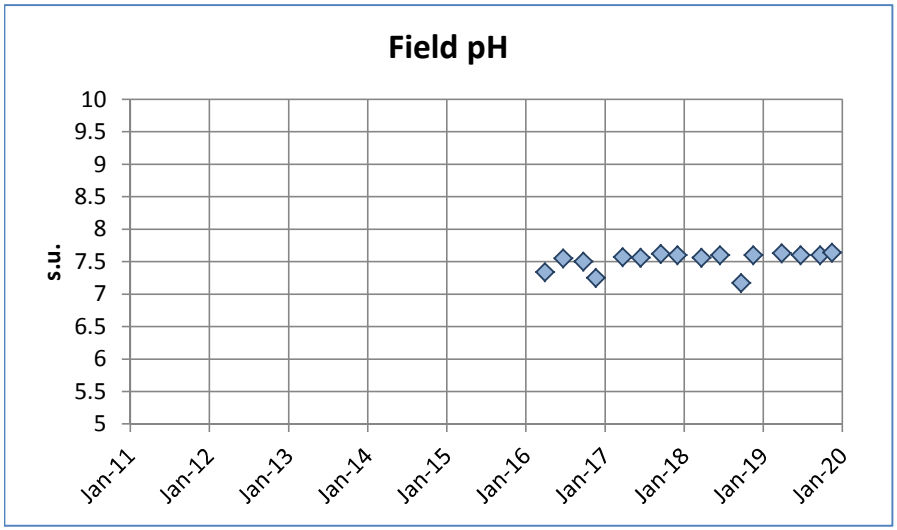


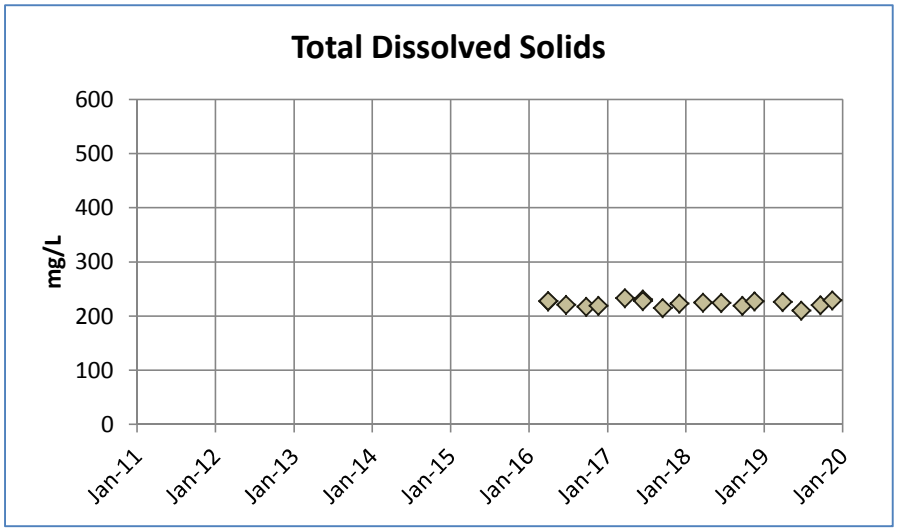


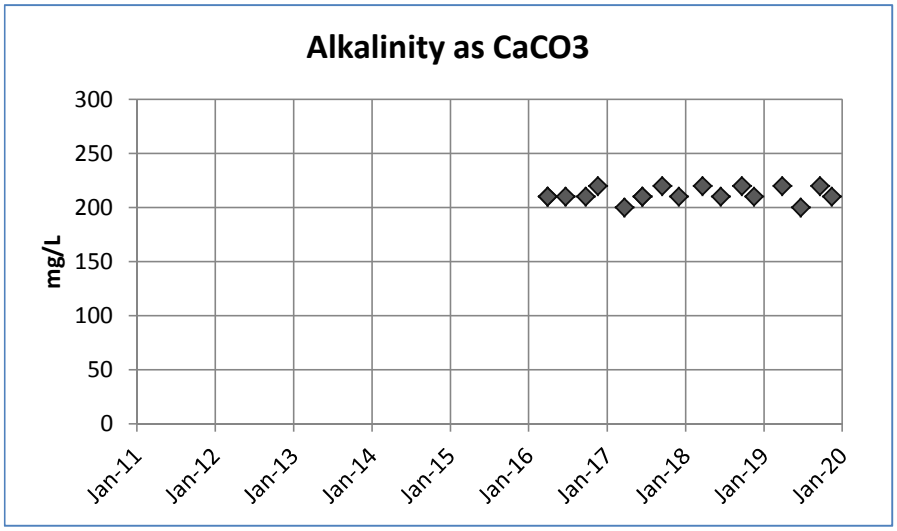
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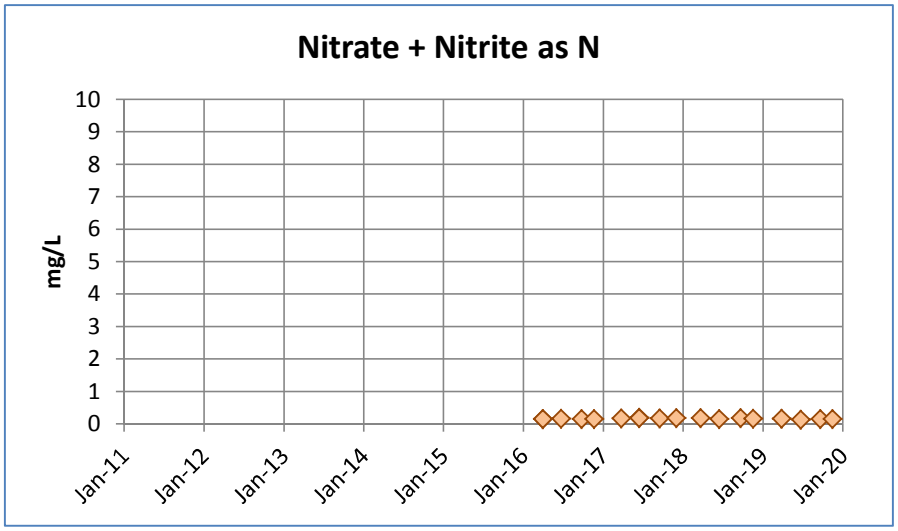
MW-11 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-12





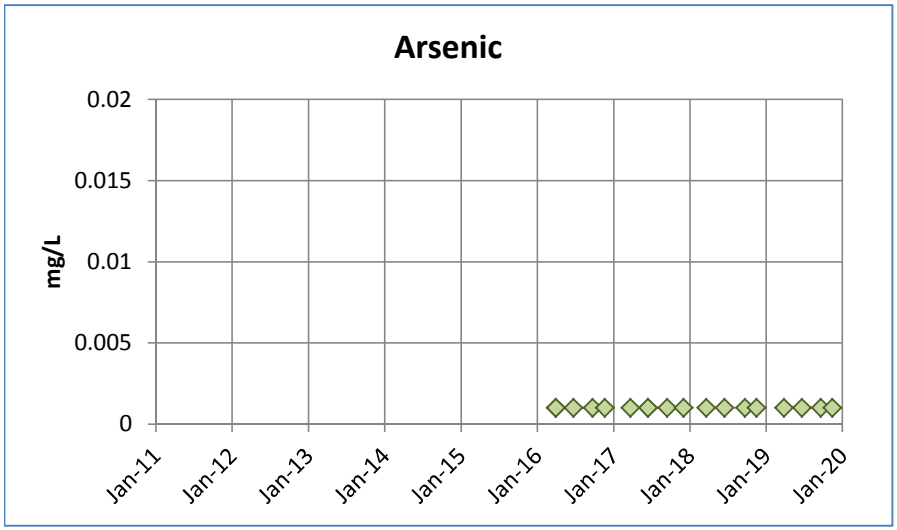


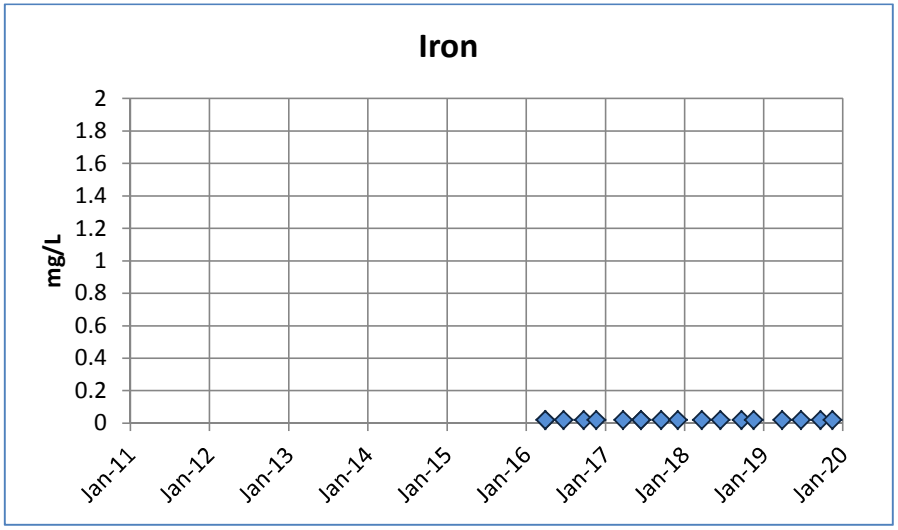


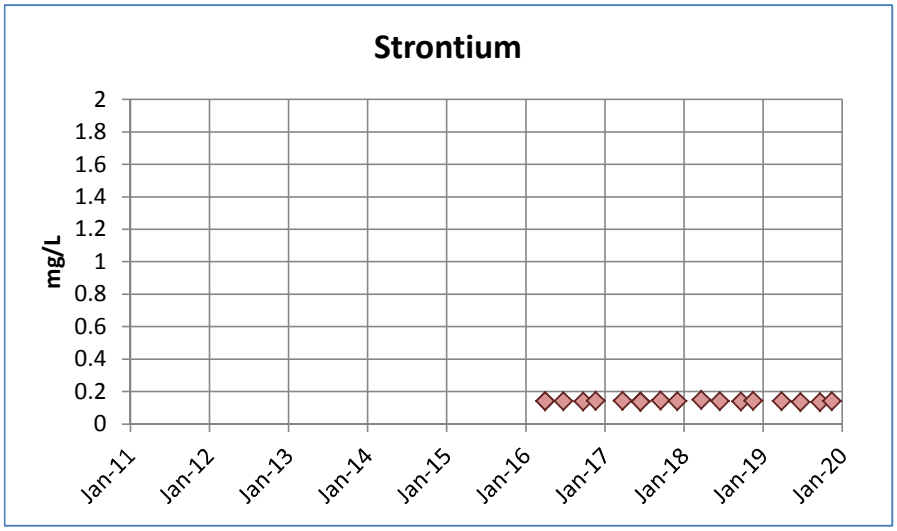
Hydrometrics, Inc.
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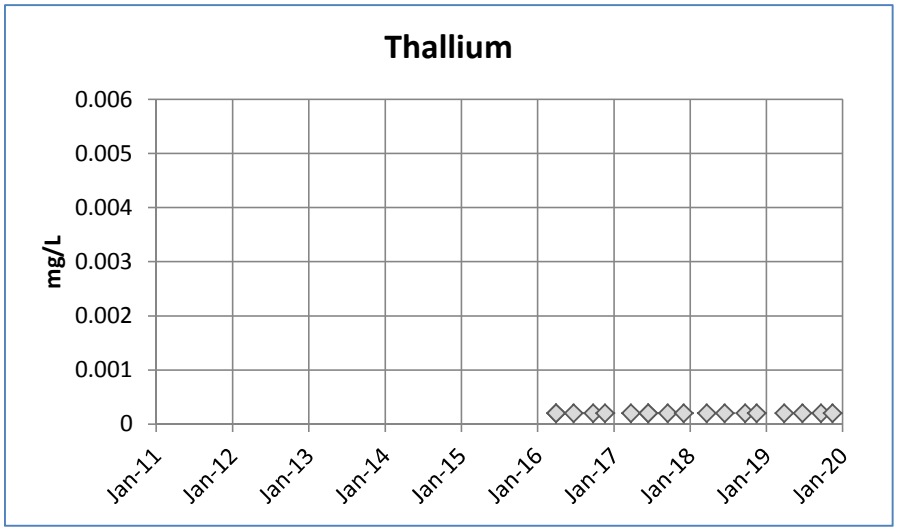
MW-12 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

MW-12





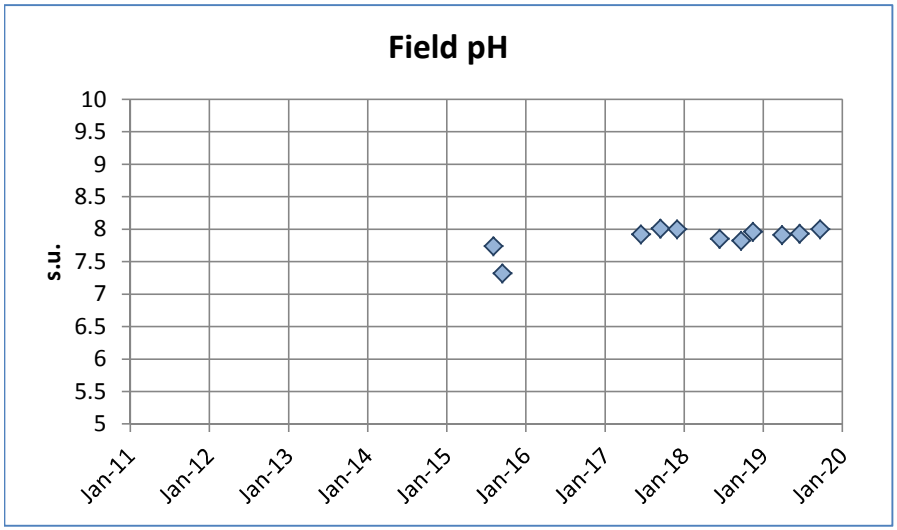


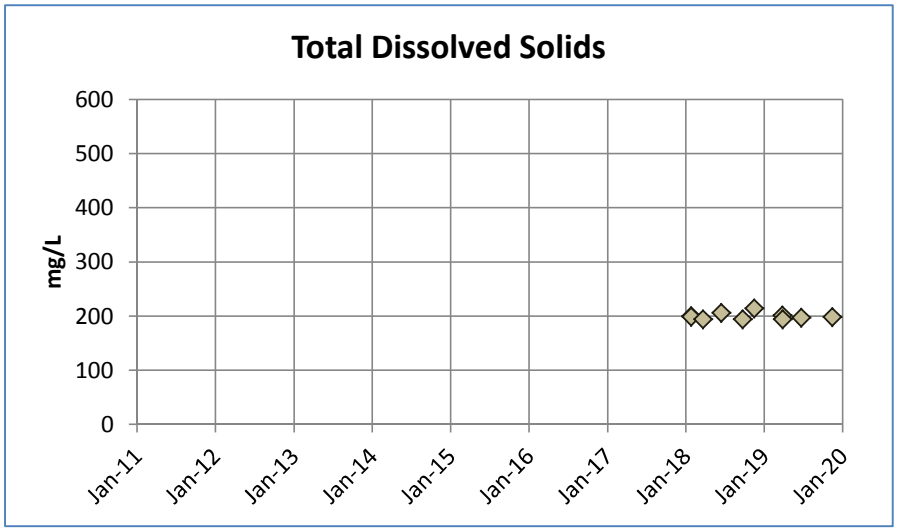


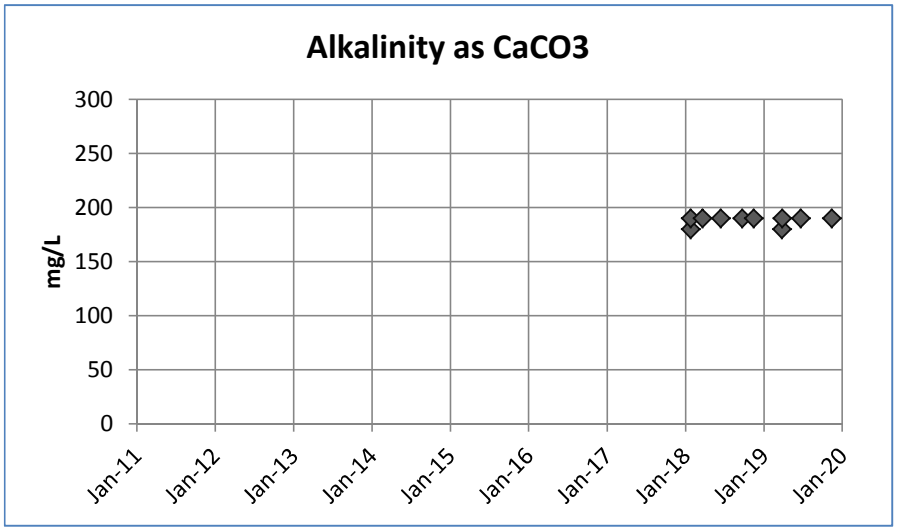
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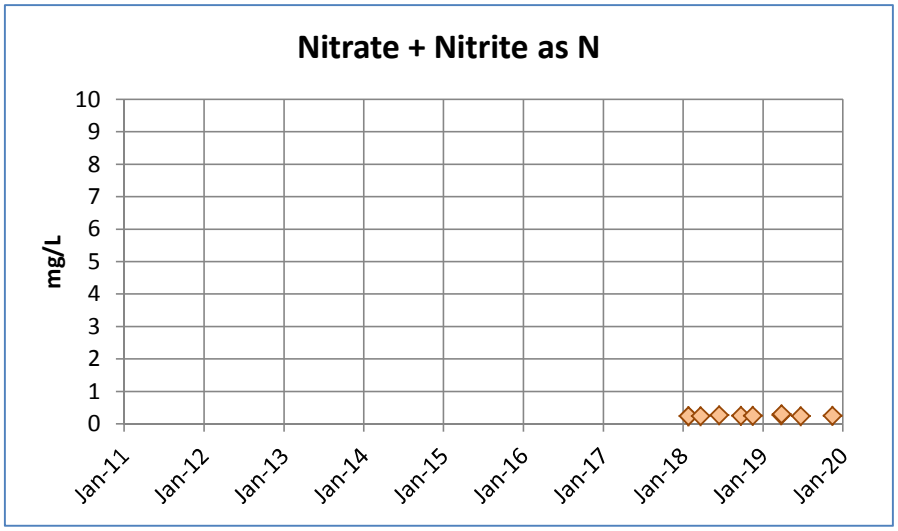
MW-12 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SC15-184





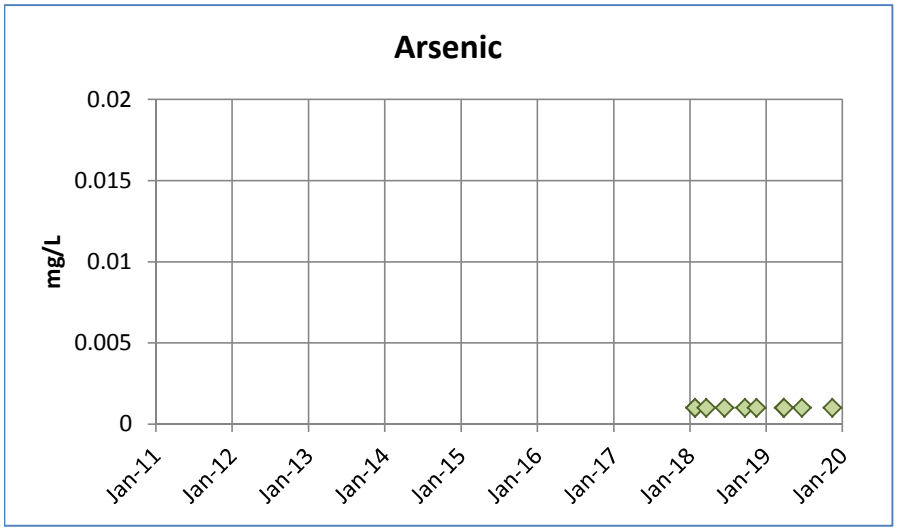


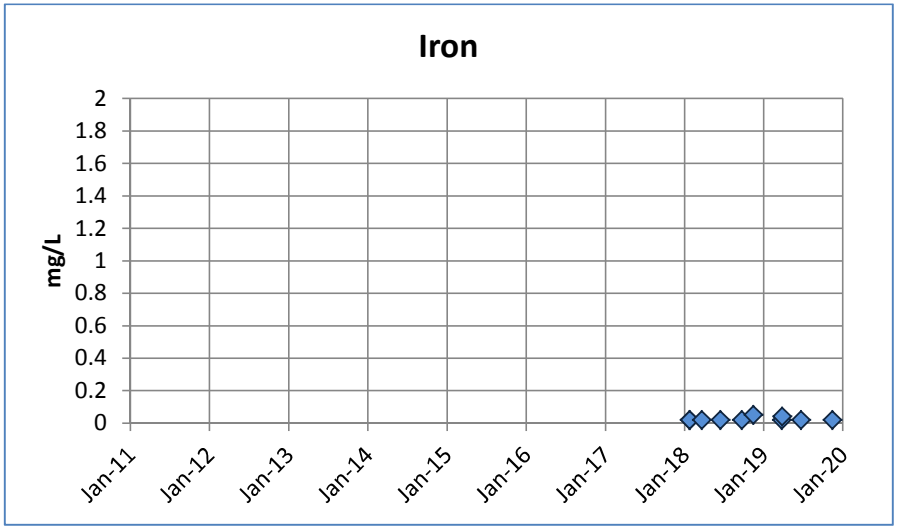


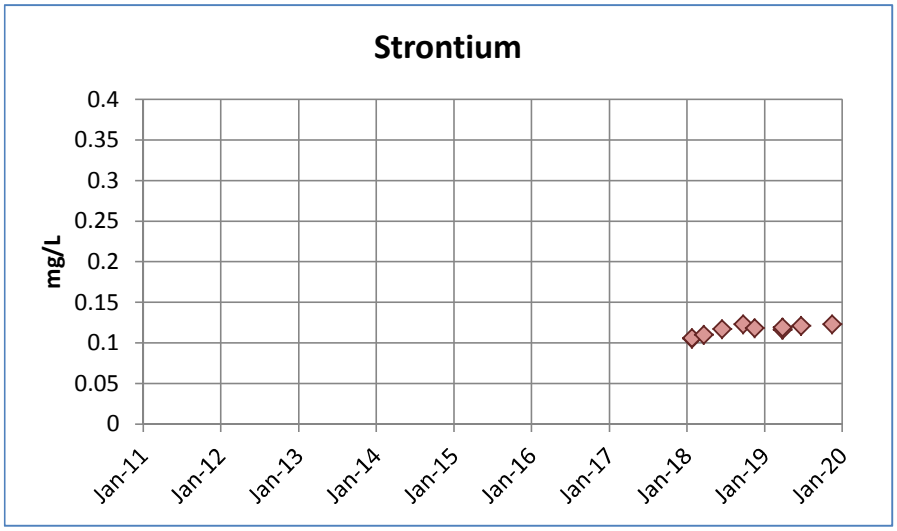
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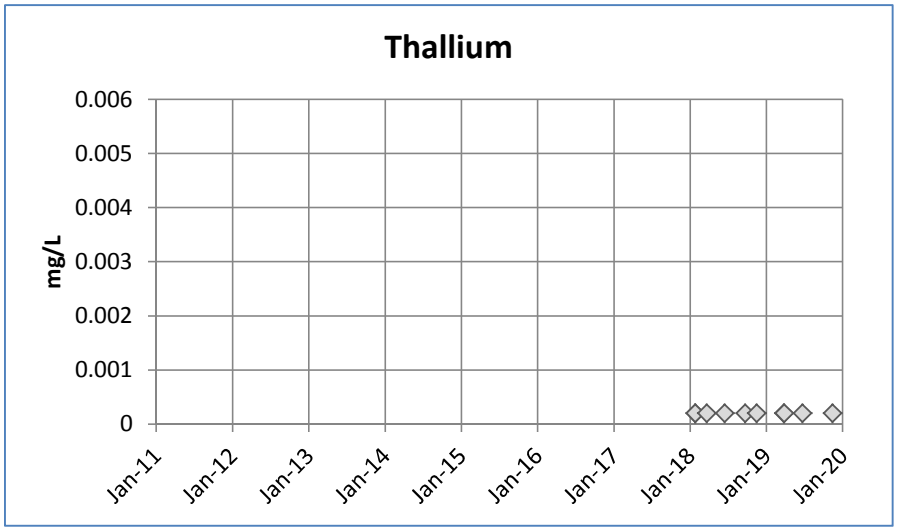
SC15-184 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SC15-184





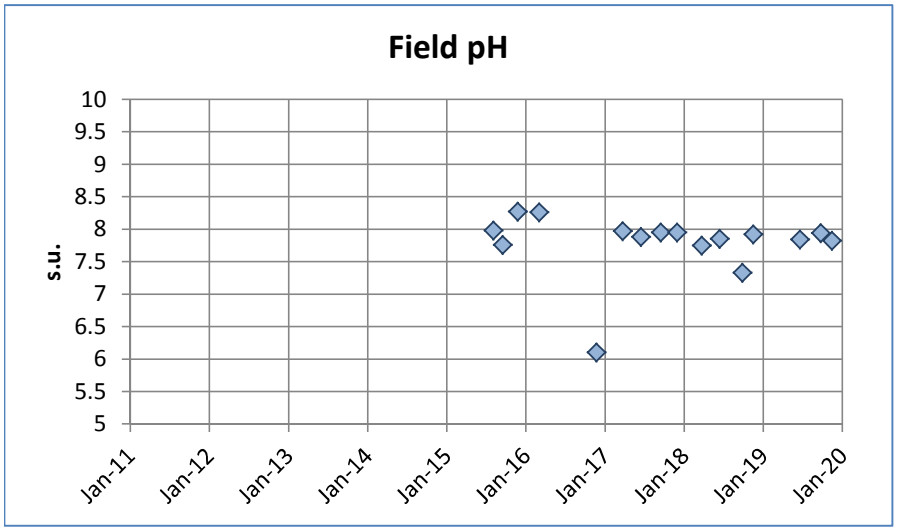


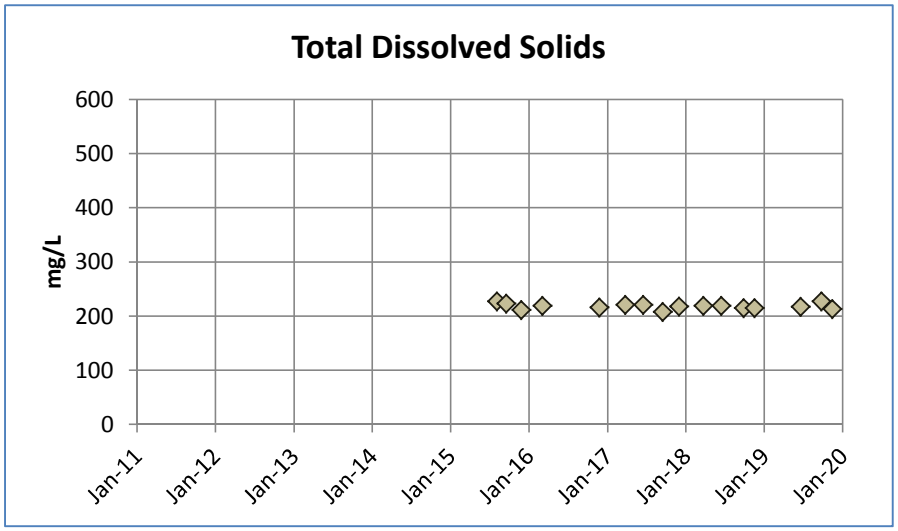


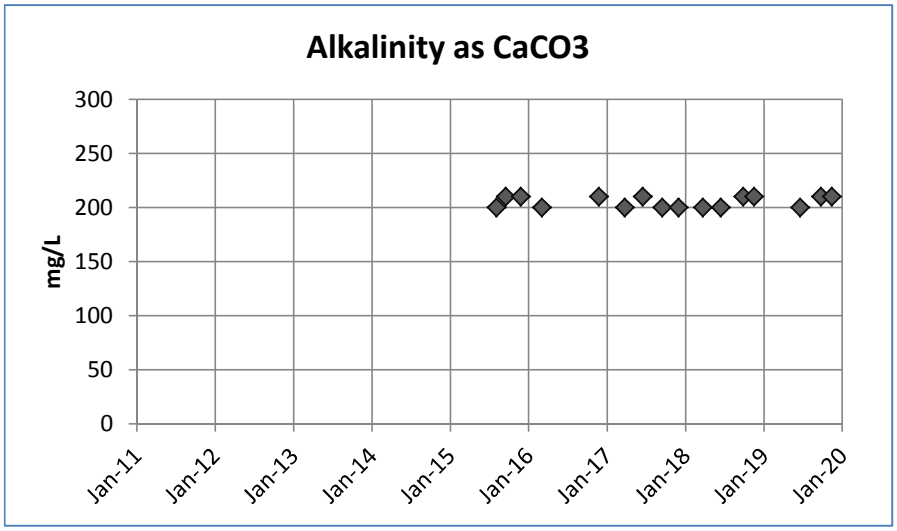
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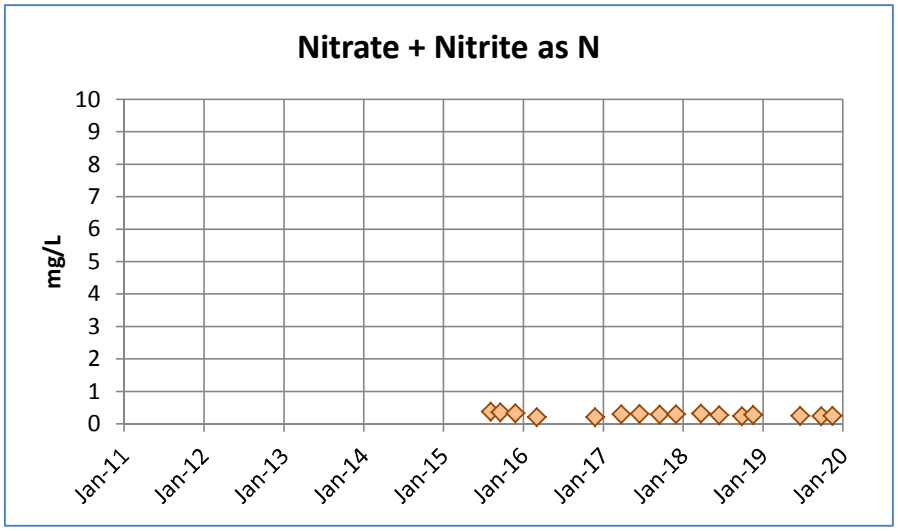
SC15-184 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SC15-185





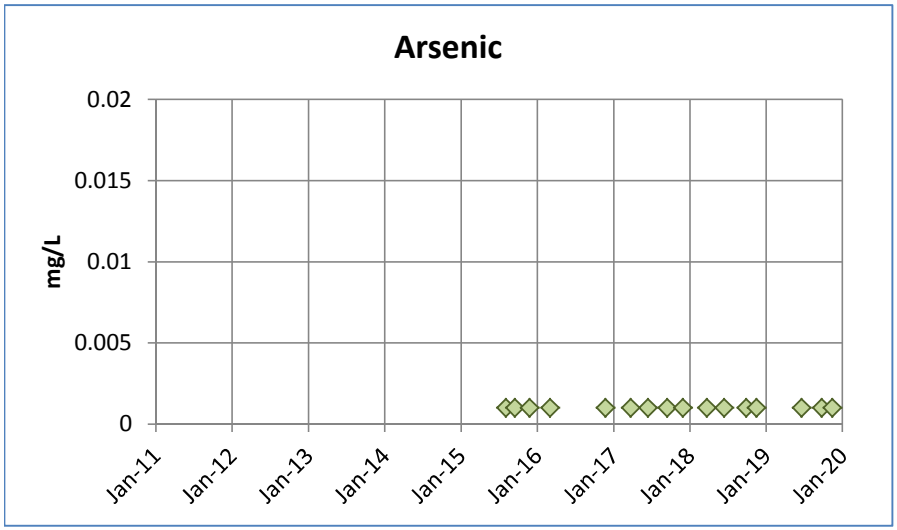


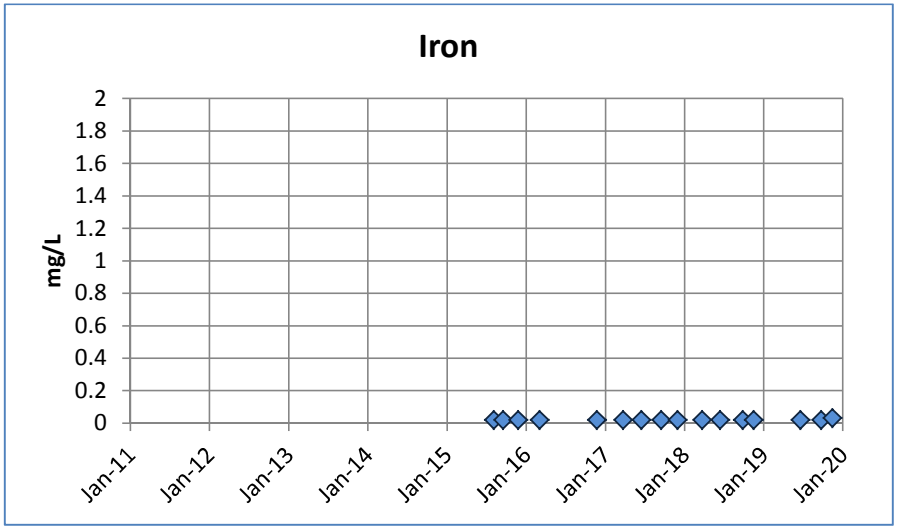


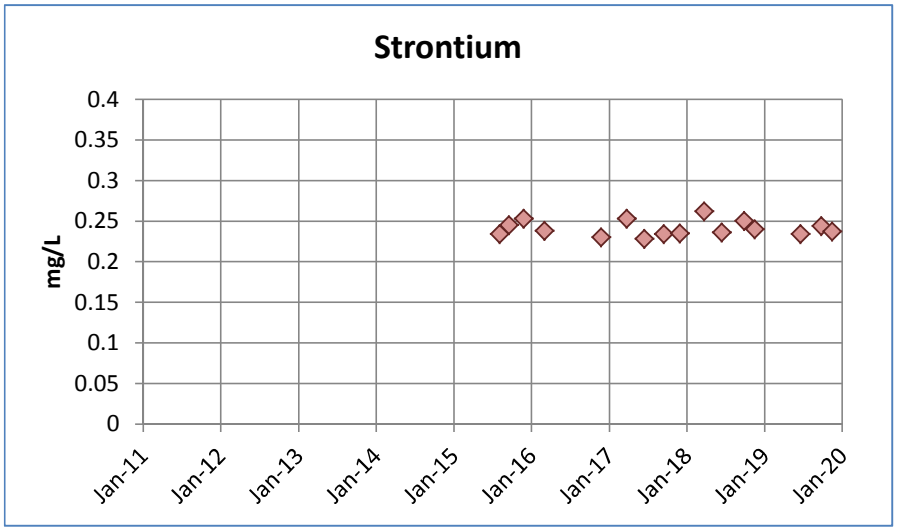
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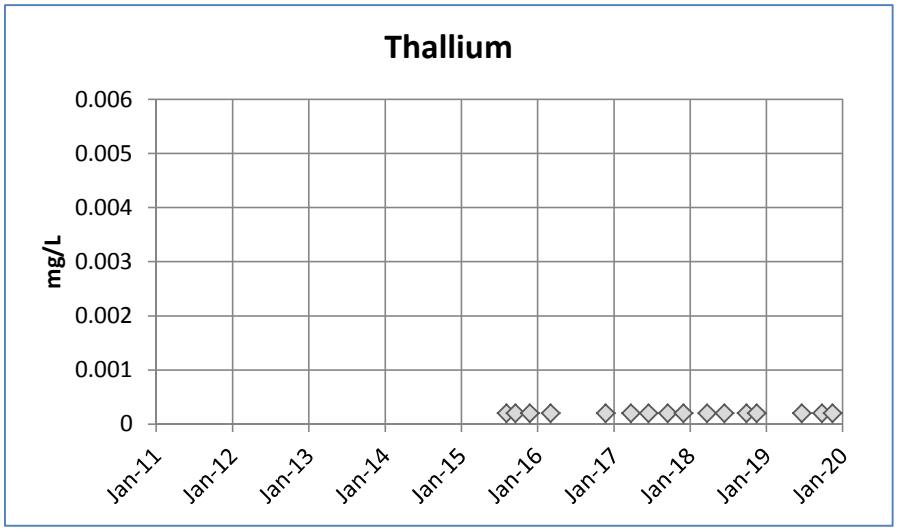
SC15-185 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SC15-185





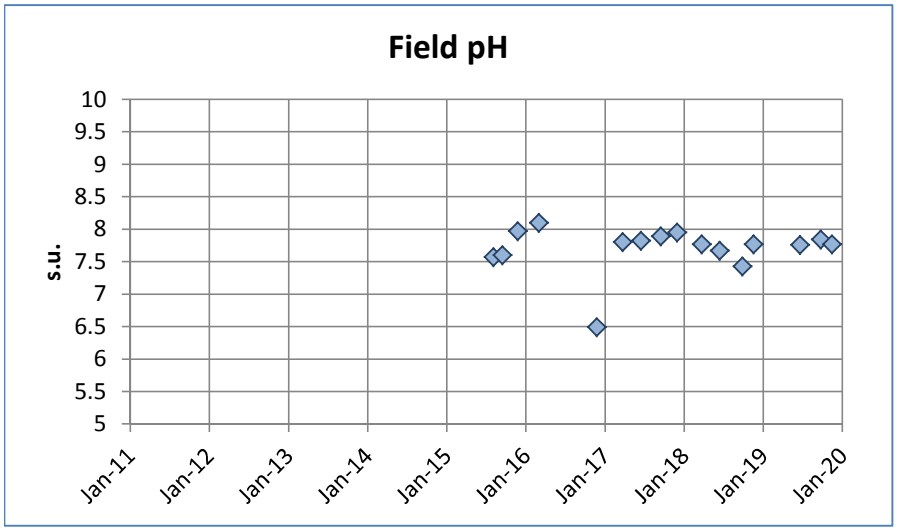


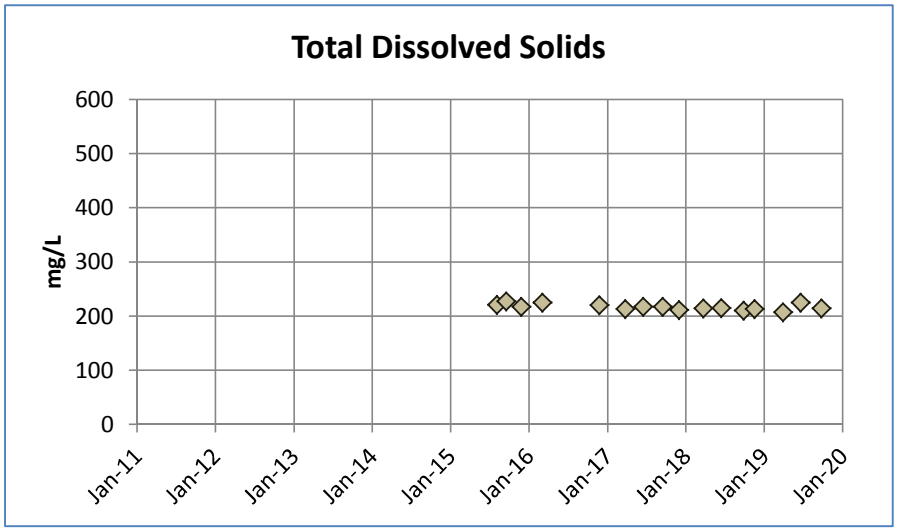


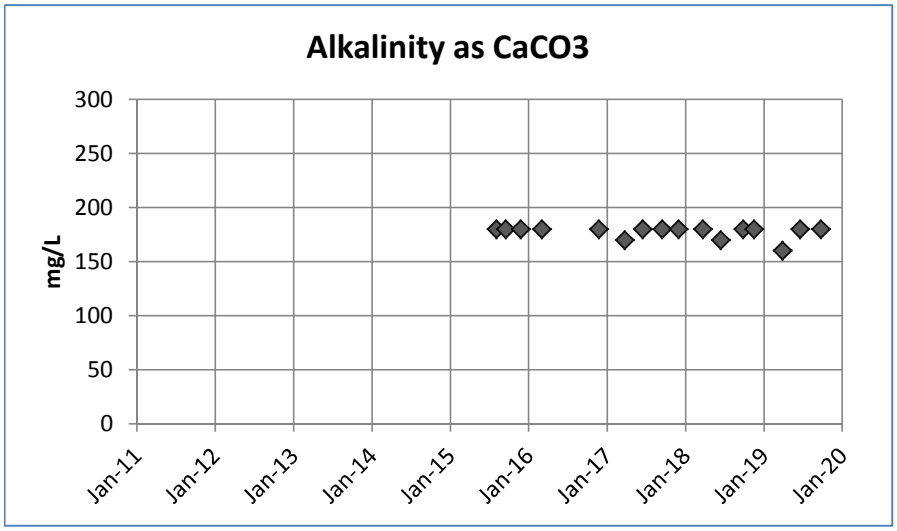
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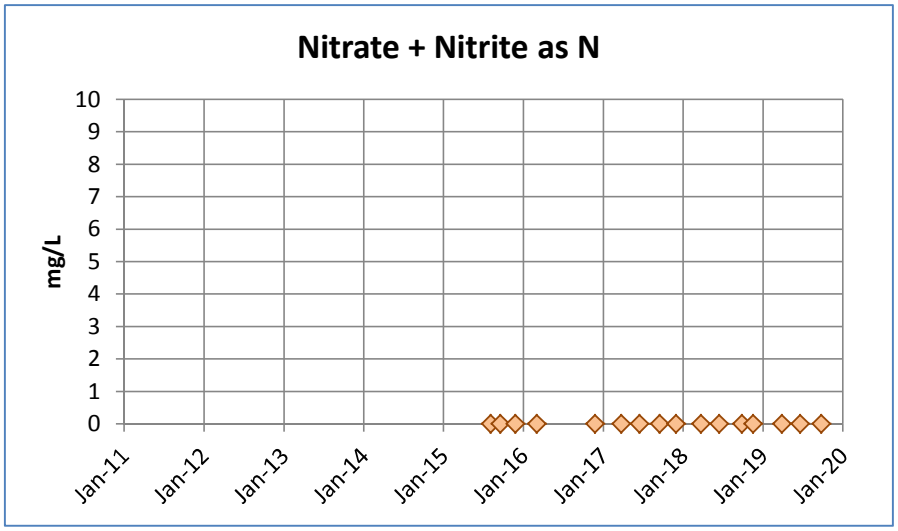
SC15-185 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SC15-194





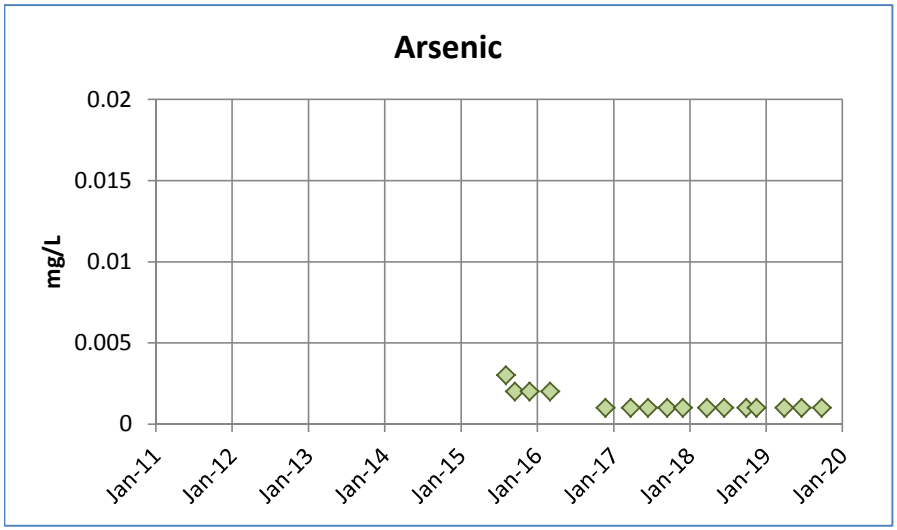


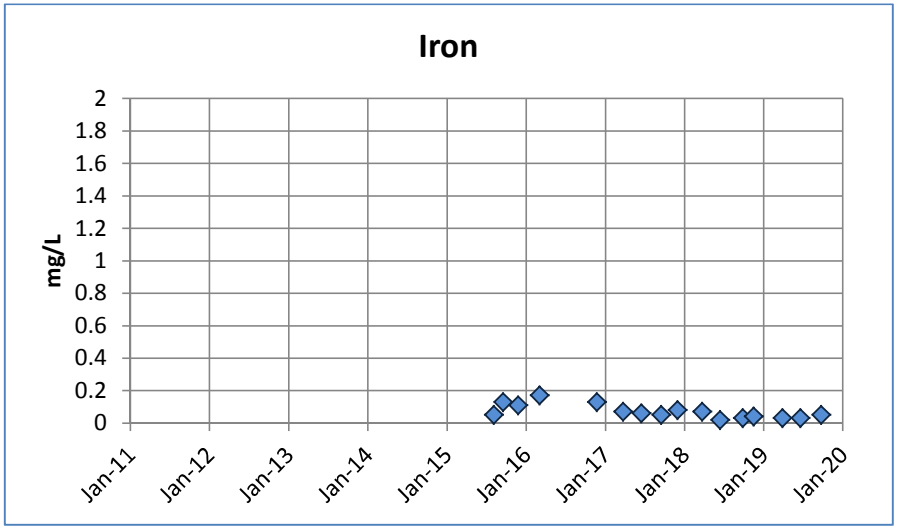


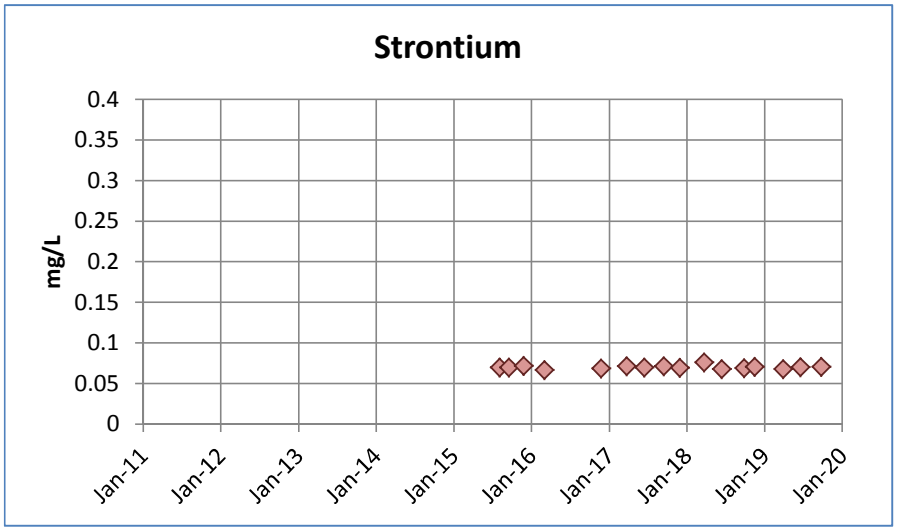
Hydrometrics, Inc.
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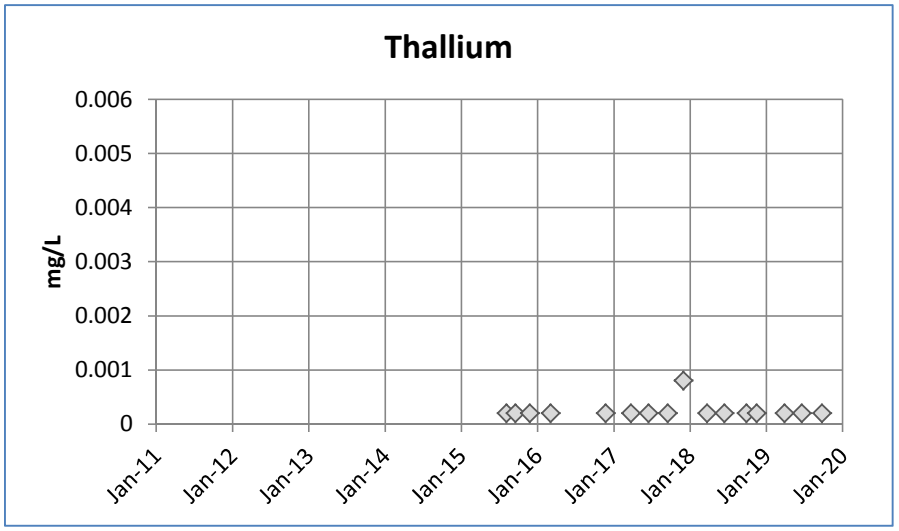
SC15-194 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SC15-194





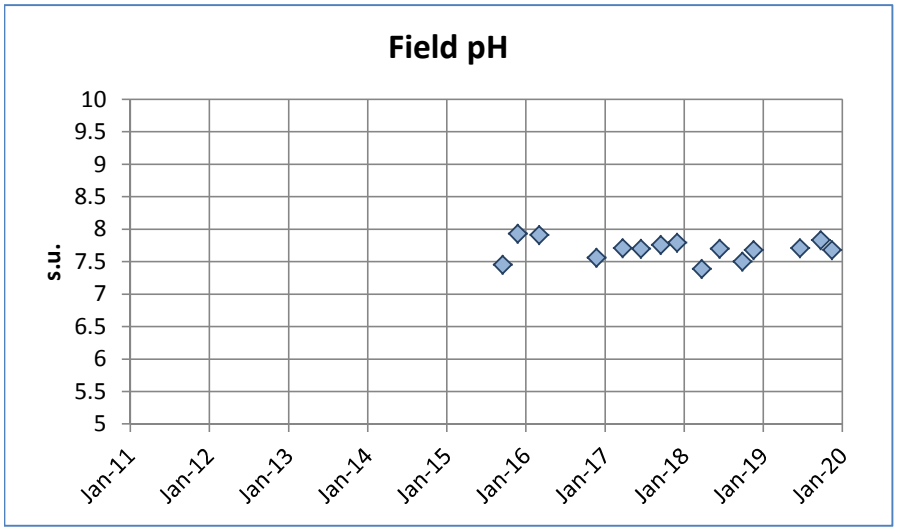


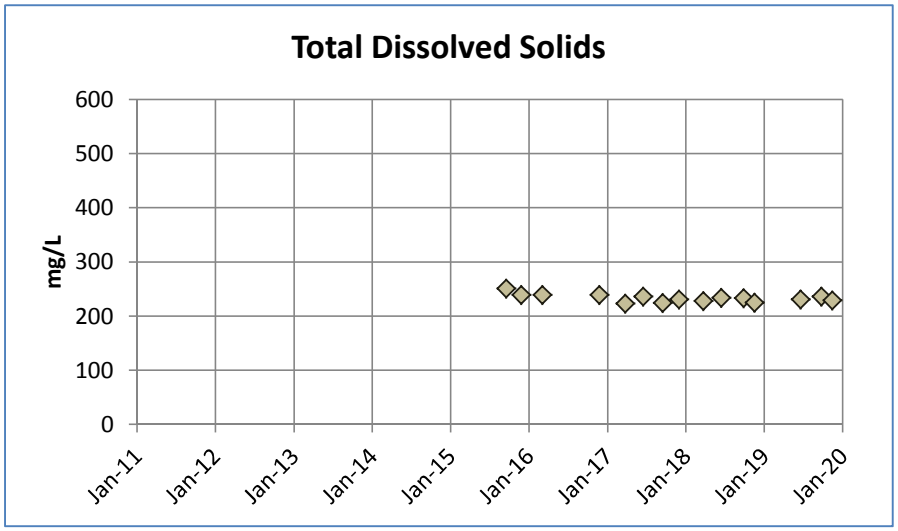


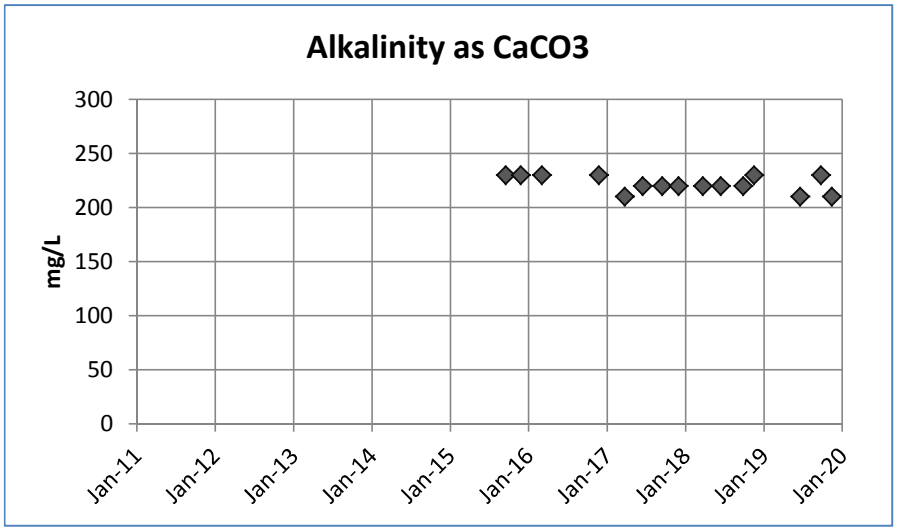
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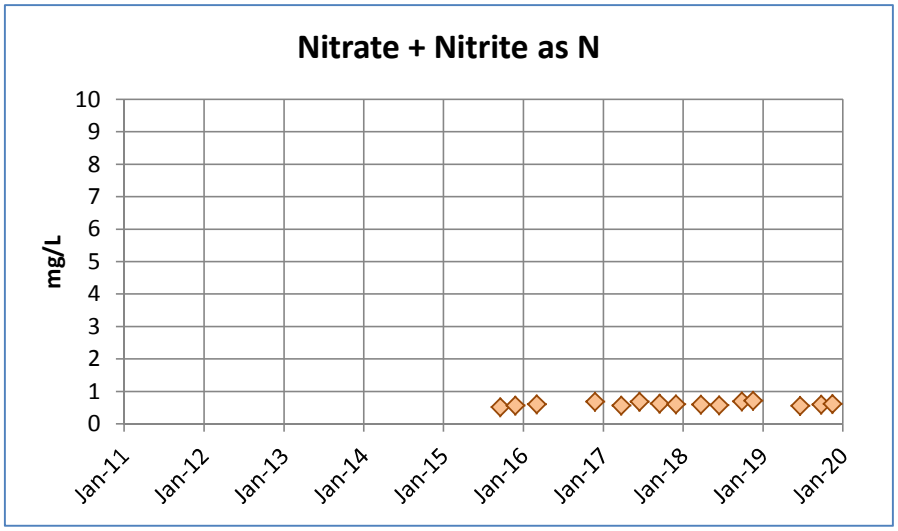
SC15-194 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SC15-198





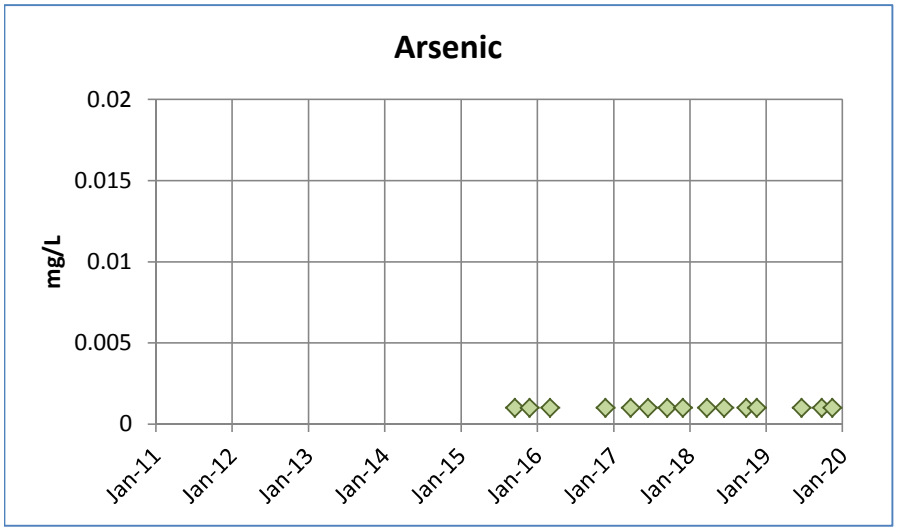


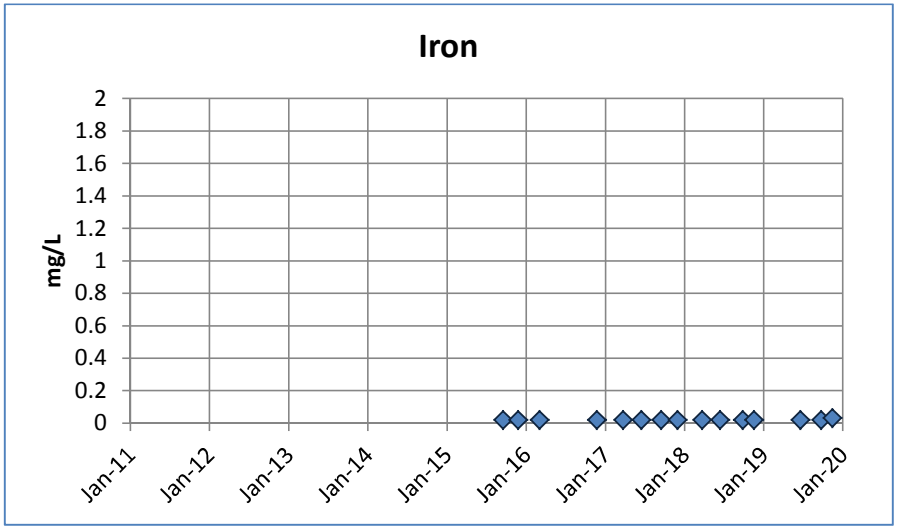


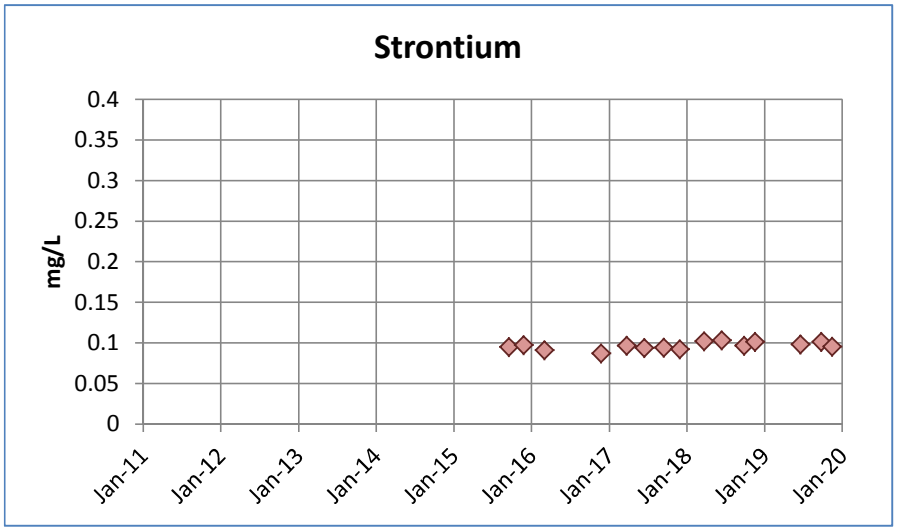
Hydrometrics, Inc.
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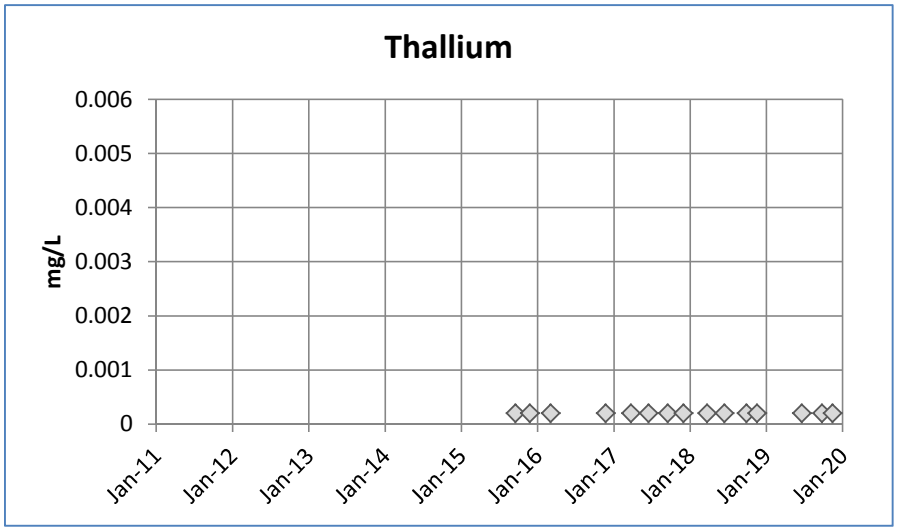
SC15-198 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

SC15-198





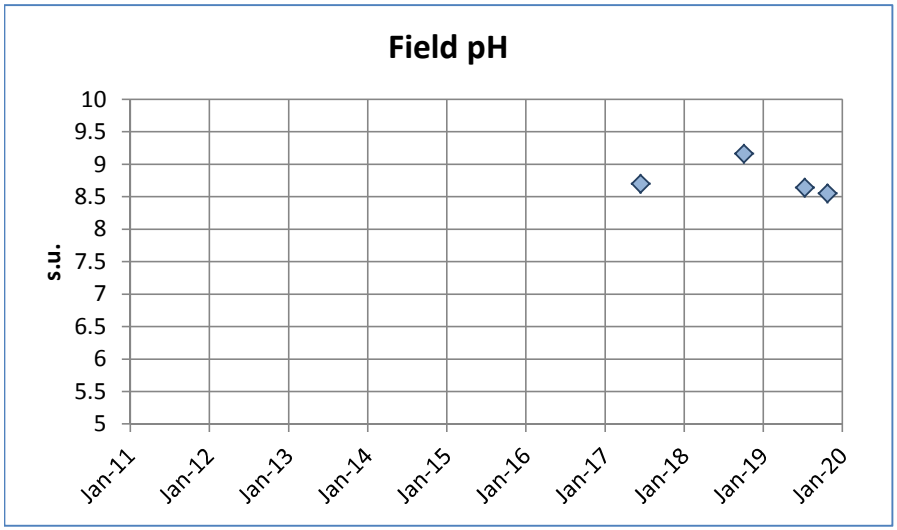


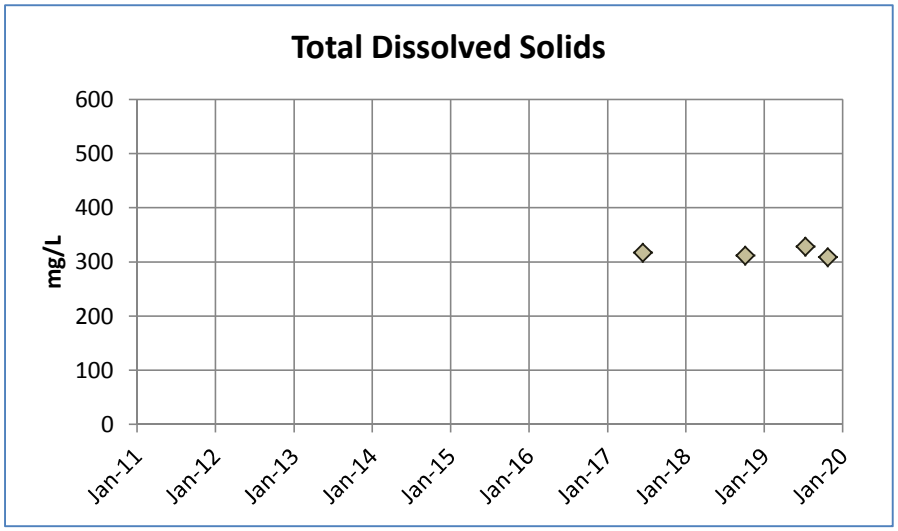


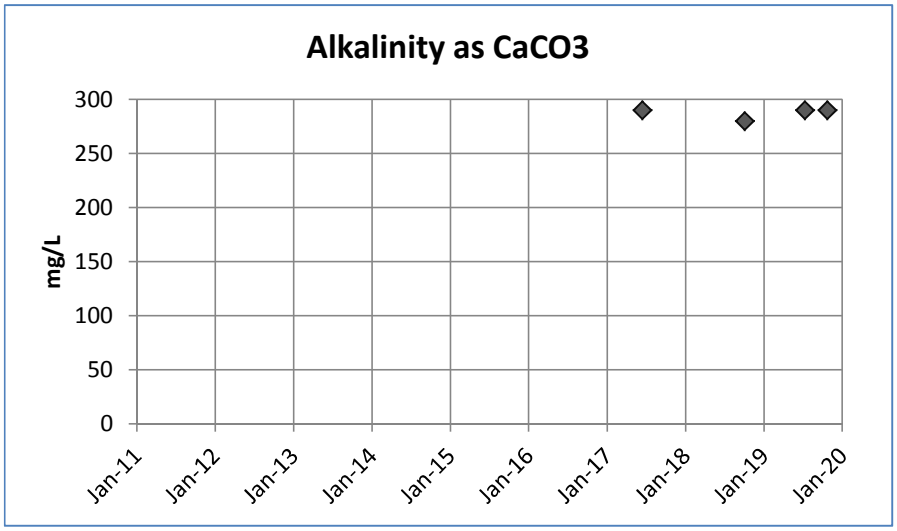
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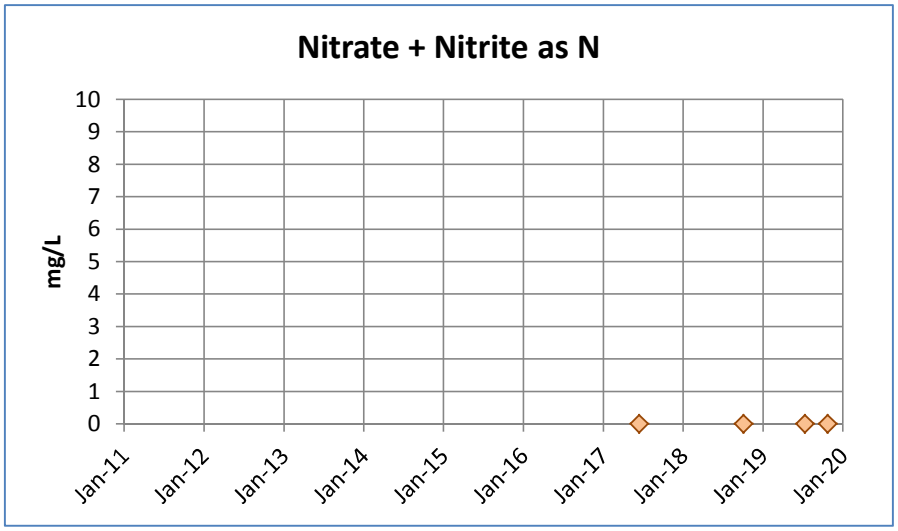
SC15-198 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

PW-7





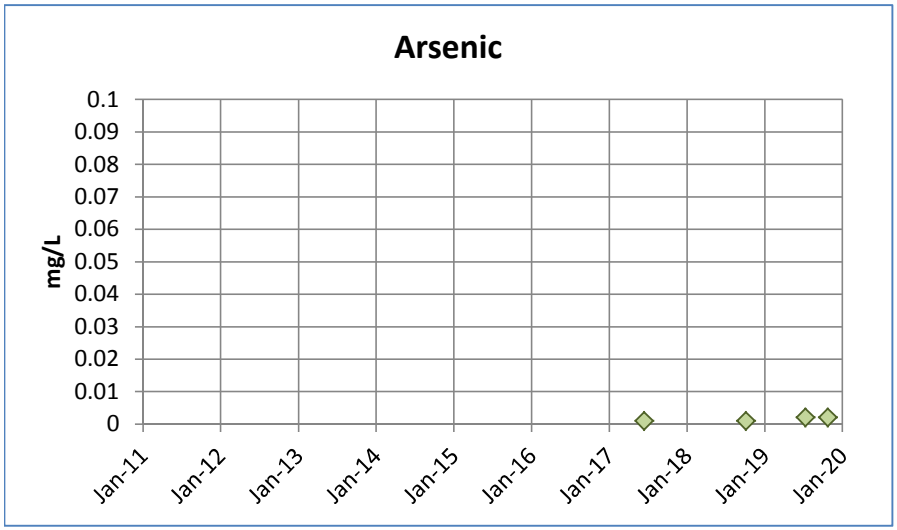


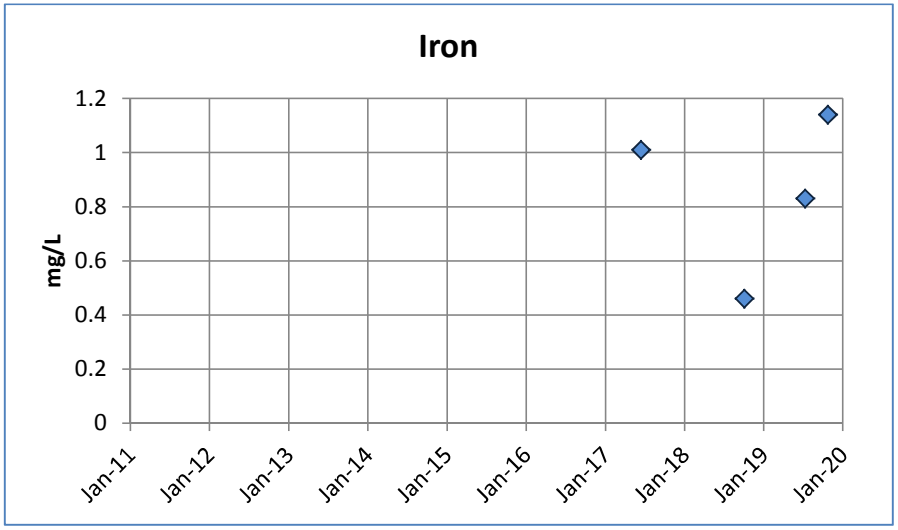


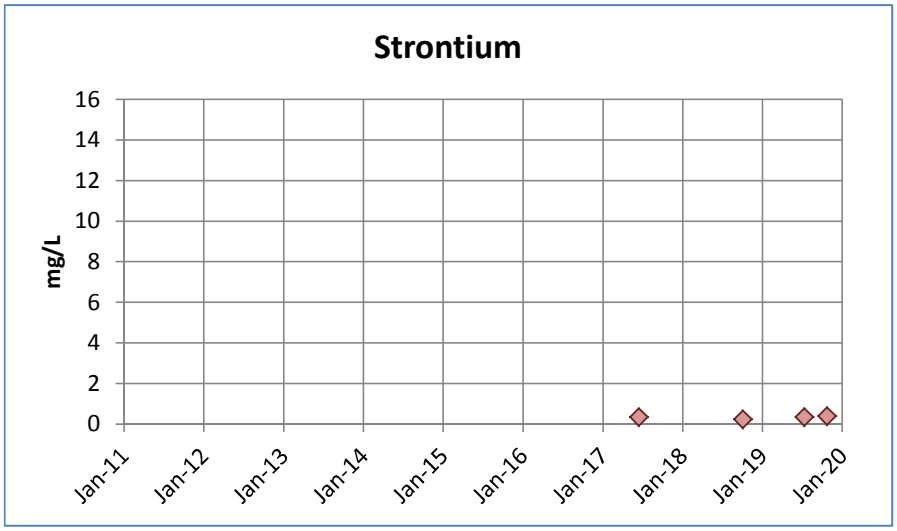
Hydrometrics, Inc.
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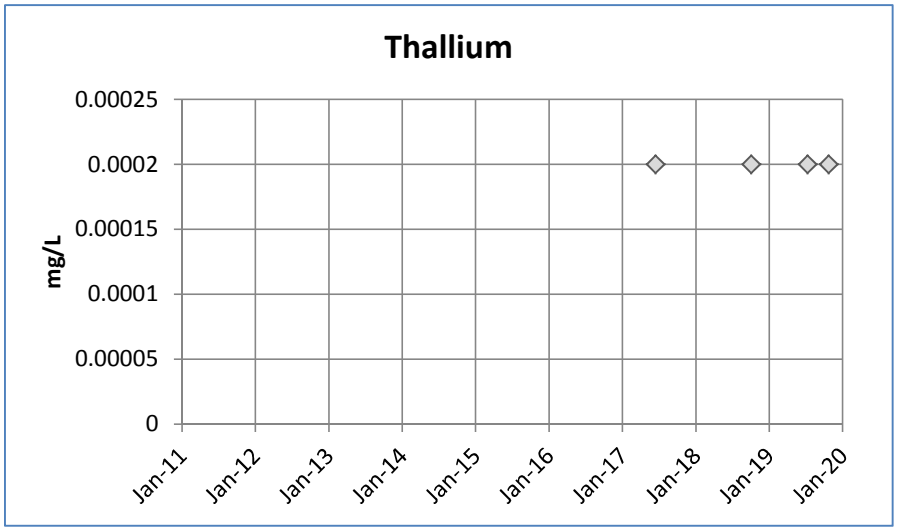
PW-7 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

PW-7





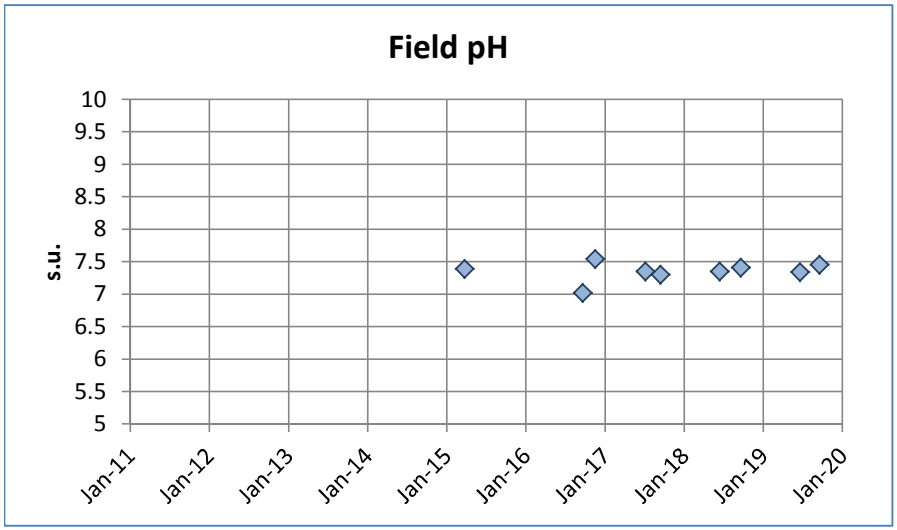


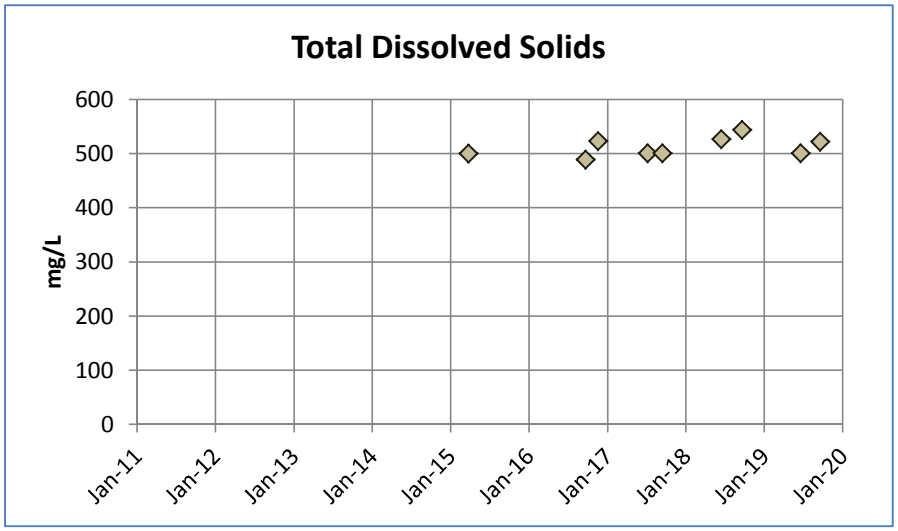


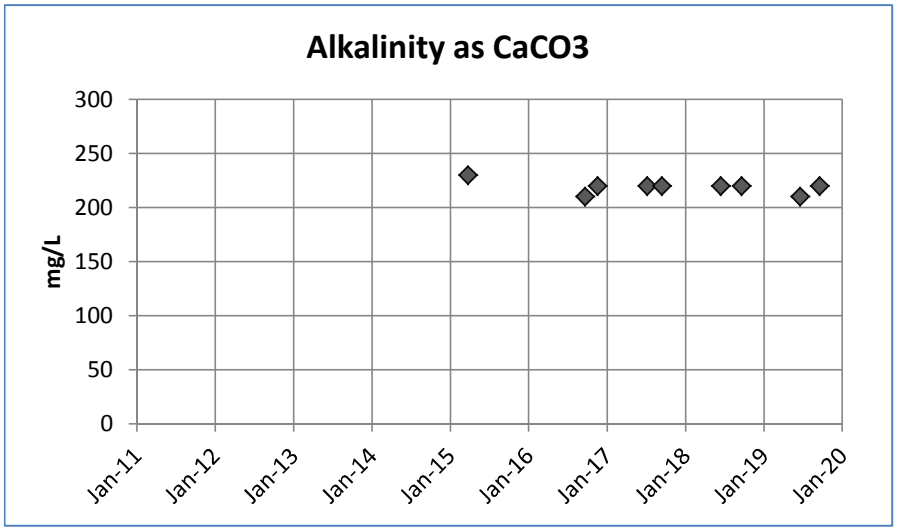
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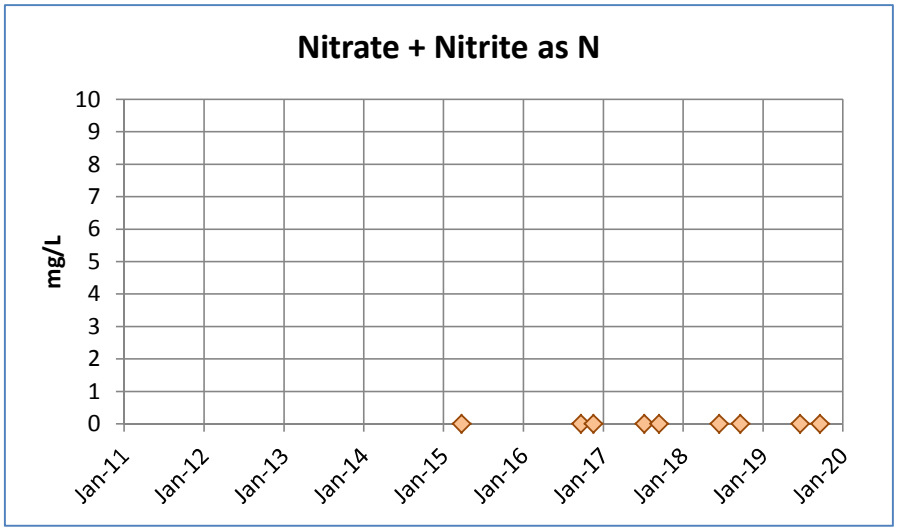
PW-7 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

PW-10





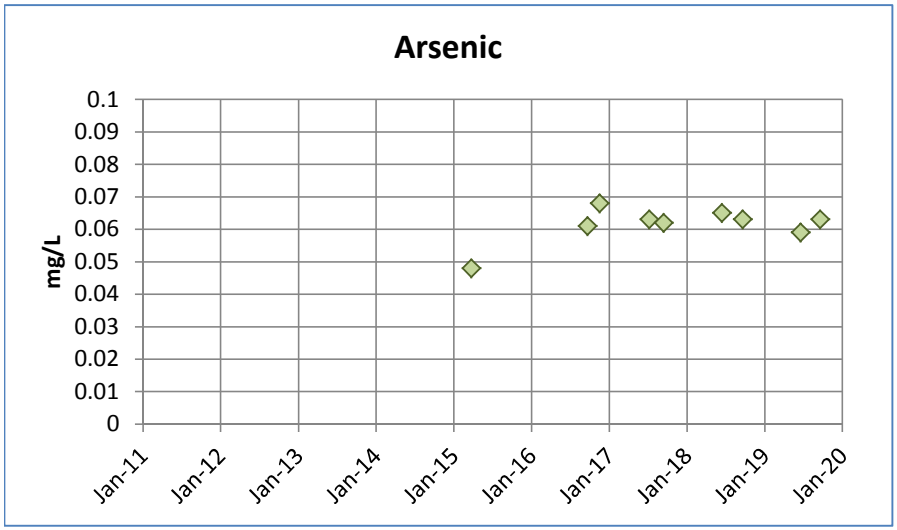


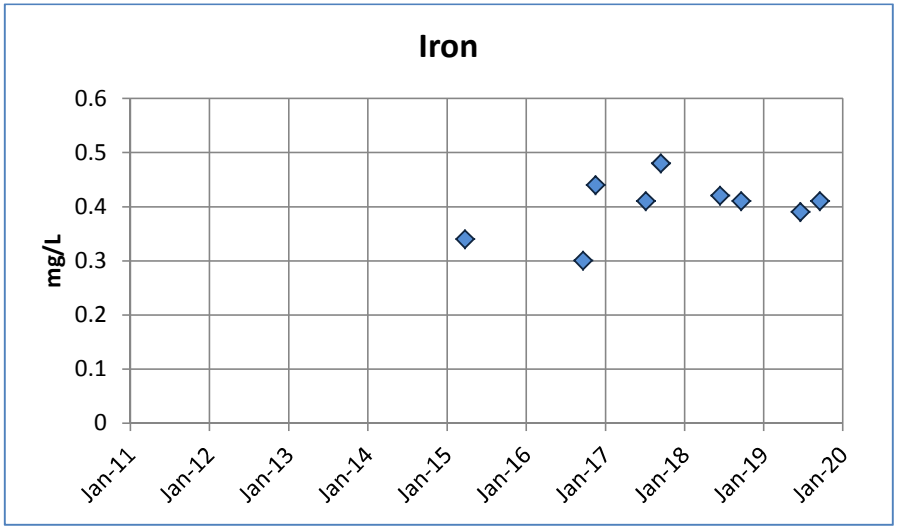


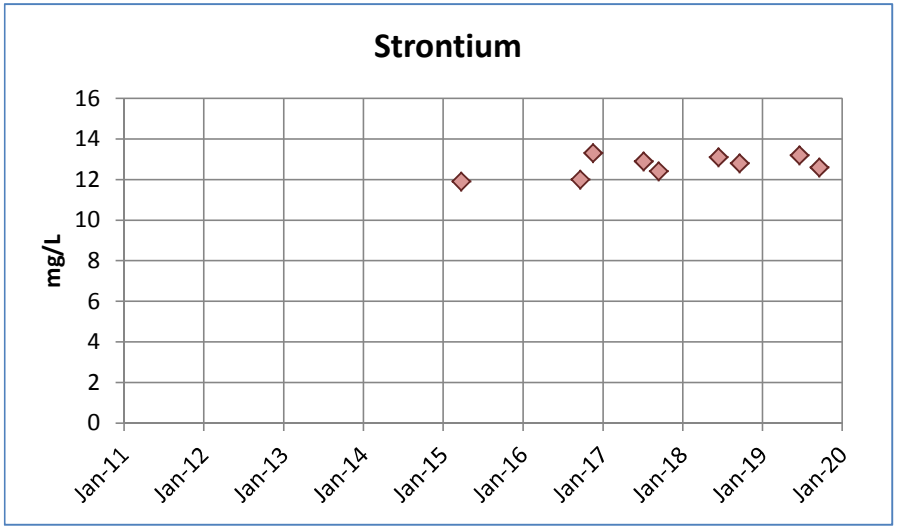
Hydrometrics, Inc.
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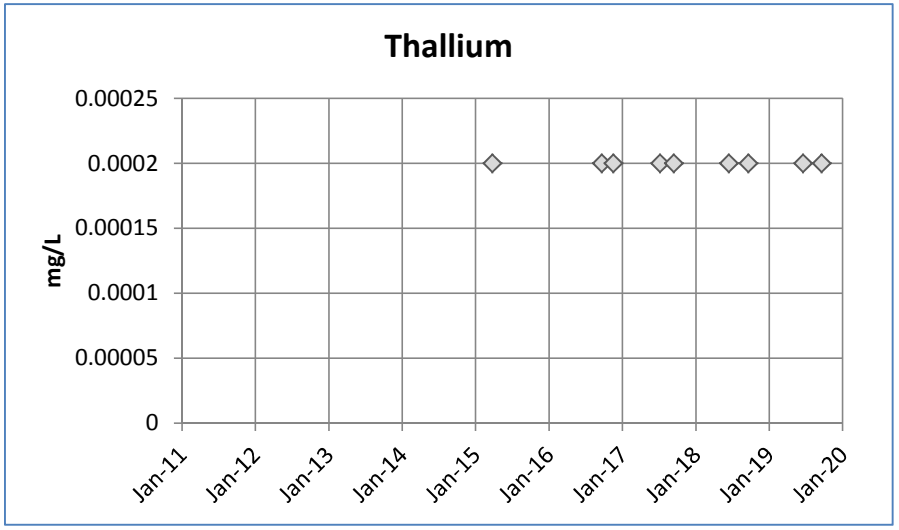
PW-10 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

PW-10









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PW-10 Data Trend Graph
Black Butte Copper Project
Meagher County, Montana

APPENDIX E

QUALITY ASSURANCE / QUALITY CONTROL SUMMARY

Station Name	Reporting Units	DI-Blank	DI-Blank	DI-Blank	DI-Blank	DI-Blank	DI-Blank	DI-Blank	DI-Blank	DI-Blank	DI-Blank	DI-Blank	DI-Blank	DI-Blank	DI-Blank	DI-Blank	DI-Blank	DI-Blank	DI-Blank	DI-Blank	DI-Blank	DI-Blank	DI-Blank	DI-Blank	DI-Blank
Sample Date		1/10/19 11:35	1/10/19 15:30	2/22/19 12:55	2/22/19 16:52	3/27/19 07:50	3/28/19 08:25	3/28/19 13:10	4/24/19 15:30	4/24/19 16:00	5/30/19 13:35	5/30/19 14:10	6/19/19 18:25	6/19/19 18:30	6/19/19 19:00	7/25/19 13:45	7/25/19 14:30	8/21/19 13:15	8/21/19 14:00	9/20/19 15:15	9/24/19 10:35	9/25/19 15:00	10/24/19 16:10	10/24/19 16:30	11/12/19 10:30
Sample ID		BBC-1901-107	BBC-1901-114	BBC-1902-107	BBC-1902-120	BBC-1903-118	BBC-1903-128	BBC-1903-222	BBC-1904-126	BBC-1904-127	BBC-1905-127	BBC-1905-128	BBC-1906-127	BBC-1906-216	BBC-1906-128	BBC-1907-128	BBC-1907-129	BBC-1908-128	BBC-1908-129	BBC-1909-230	BBC-1909-115	BBC-1909-152	BBC-1910-128	BBC-1910-129	BBC-1911-116
Lab Name		Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
Remarks		Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank
Lab Sample ID		H19010185-006	H19010186-006	H19020363-006	H19020364-006	H19030475-006	H19030548-004	H19030547-008	H19040763-012	H19040763-021	H19050915-012	H19059914-008	H19060536-008	H19060528-017	H19060535-010	H19070583-009	H19070585-013	H19080621-009	H19080622-012	H19090556-027	H19090658-014	H19090658-012	H19100567-009	H19100566-012	H19110278-009
Physical Parameters																									
pH	s.u.			5.7 H	5.7 H																				
pH Measurement Temp	Deg C			16	16.8																				
Total Dissolved Solids	mg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Total Suspended Solids	mg/L	<4	<10	<4	<10	<10	<4	<10	<10	<4	<10	<4	<4	<10	<10	<4	<10	<4	<10	<10	<4	<10	<4	<10	<4
Major Constituents - Commons Ions																									
Alkalinity as CaCO3	mg/L	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Calcium (DIS)	mg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloride	mg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Fluoride	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hardness as CaCO3	mg/L	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	2	<1	<1
Magnesium (DIS)	mg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Potassium (DIS)	mg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sodium (DIS)	mg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfate	mg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Nutrients																									
Nitrate + Nitrite as N	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phosphorus (TOT)	mg/L	<0.003					<0.003																		
Phosphorus (TRC)	mg/L			<0.003						<0.003		<0.003	<0.003			<0.003		<0.003			<0.003		<0.003		<0.003
Total Nitrogen as N (Persulfate)	mg/L	<0.04		<0.04			<0.04			<0.04		<0.04	<0.04			<0.04		<0.04			<0.04		<0.04		<0.04
Metals - Trace Constituents																									
Aluminum (DIS)	mg/L	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009
Antimony (DIS)	mg/L		<0.0005		<0.0005	<0.0005		<0.0005	<0.0005		<0.0005			<0.0005	<0.0005		<0.0005		<0.0005	<0.0005		<0.0005		<0.0005	
Antimony (TRC)	mg/L	<0.0005		<0.0005			<0.0005			<0.0005		<0.0005	<0.0005			<0.0005		<0.0005			<0.0005		<0.0005		<0.0005
Arsenic (DIS)	mg/L		<0.001		<0.001	<0.001		<0.001	<0.001		<0.001			<0.001	<0.001		<0.001		<0.001	<0.001		<0.001		<0.001	
Arsenic (TRC)	mg/L	<0.001		<0.001			<0.001			<0.001		<0.001	<0.001			<0.001		<0.001			<0.001		<0.001		<0.001
Barium (DIS)	mg/L		<0.003		<0.003	<0.003		<0.003	<0.003		<0.003			<0.003	<0.003		<0.003		<0.003	<0.003		<0.003		<0.003	
Barium (TRC)	mg/L	<0.003		<0.003			<0.003			<0.003		<0.003	<0.003			<0.003		<0.003			<0.003		<0.003		<0.003
Beryllium (DIS)	mg/L		<0.0008		<0.0008	<0.0008		<0.0008	<0.0008		<0.0008			<0.0008	<0.0008		<0.0008		<0.0008	<0.0008		<0.0008		<0.0008	
Beryllium (TRC)	mg/L	<0.0008		<0.0008			<0.0008			<0.0008		<0.0008	<0.0008			<0.0008		<0.0008			<0.0008		<0.0008		<0.0008
Cadmium (DIS)	mg/L		<0.00003		<0.00003	<0.00003		<0.00003	<0.00003		<0.00003			<0.00003	<0.00003		<0.00003		<0.00003	<0.00003		<0.00003		<0.00003	
Cadmium (TRC)	mg/L	<0.00003		<0.00003			<0.00003			<0.00003		<0.00003	<0.00003			<0.00003		<0.00003			<0.00003		<0.00003		<0.00003
Chromium (DIS)	mg/L		<0.01		<0.01	<0.01		<0.01	<0.01		<0.01			<0.01	<0.01		<0.01		<0.01	<0.01		<0.01		<0.01	
Chromium (TRC)	mg/L	<0.01		<0.01			<0.01			<0.01		<0.01	<0.01			<0.01		<0.01			<0.01		<0.01		<0.01
Cobalt (DIS)	mg/L		<0.01		<0.01	<0.01		<0.01	<0.01		<0.01			<0.01	<0.01		<0.01		<0.01	<0.01		<0.01		<0.01	
Cobalt (TRC)	mg/L	<0.01		<0.01			<0.01			<0.01		<0.01	<0.01			<0.01		<0.01			<0.01		<0.01		<0.01
Copper (DIS)	mg/L		<0.002		<0.002	<0.002		<0.002	<0.002		<0.002			<0.002	<0.002		<0.002		<0.002	<0.002		<0.002		<0.002	
Copper (TRC)	mg/L	<0.002		<0.002			<0.002			<0.002		<0.002	<0.002			<0.002		<0.002			<0.002		<0.002		<0.002
Iron (DIS)	mg/L		<0.02		0.1	<0.02		<0.02	<0.02		<0.02			<0.02	<0.02		<0.02		<0.02	<0.02		<0.02		<0.02	
Iron (TRC)	mg/L	<0.02		<0.02			<0.02			<0.02		0.03	<0.02			<0.02		<0.02			<0.02		0.02		<0.02
Lead (DIS)	mg/L		<0.0003		<0.0003	<0.0003		<0.0003	<0.0003		<0.0003			<0.0003	<0.0003		<0.0003		<0.0003	<0.0003		<0.0003		<0.0003	
Lead (TRC)	mg/L	<0.0003		<0.0003			<0.0003			<0.0003		<0.0003	<0.0003			<0.0003		<0.0003			<0.0003		<0.0003		<0.0003
Manganese (DIS)	mg/L		<0.005		<0.005	<0.005		<0.005	<0.005		<0.005			<0.005	<0.005		<0.005		<0.005	<0.005		<0.005		<0.005	
Manganese (TRC)	mg/L	<0.005		<0.005			<0.005			<0.005		<0.005	<0.005			<0.005		<0.005			<0.005		<0.005		<0.005
Mercury (DIS)	ug/L		<0.005		<0.005	<0.005		<0.005	<0.005		<0.005			<0.005	<0.005		<0.005		<0.005	<0.005		<0.005		<0.005	
Mercury (TRC)	ug/L	<0.005		<0.005			<0.005			<0.005		<0.005	<0.005			<0.005		<0.005			<0.005		<0.005		<0.005
Molybdenum (DIS)	mg/L		<0.002		<0.002	<0.002		<0.002	<0.002		<0.002			<0.002	<0.002		<0.002		<0.002	<0.002		<0.002		<0.002	
Molybdenum (TRC)	mg/L	<0.002		<0.002			<0.002			<0.002		<0.002	<0.002			<0.002		<0.002			<0.002		<0.002		<0.002
Nickel (DIS)	mg/L		<0.001		<0.001	0.002		<0.001	<0.001		<0.001			<0.001	<0.001		<0.001		<0.001	<0.001		<0.001		<0.001	
Nickel (TRC)	mg/L	<0.001		<0.001			<0.001			<0.001		<0.001	<0.001			<0.001		<0.001			<0.001		<0.001		<0.001
Selenium (DIS)	mg/L		<0.0002		<0.0002	<0.0002		<0.0002	<0.0002		<0.0002			<0.0002	<0.0002		<0.0002		<0.0002	<0.0002		<0.0002		<0.0002	
Selenium (TRC)	mg/L	<0.0002		<0.0002			<0.0002			<0.0002		<0.0002	<0.0002			<0.0002		<0.0002			<0.0002		<0.0002		<0.0002
Silver (DIS)	mg/L		<0.0002		<0.0002	<0.0002		<0.0002	<0.0002		<0.0002			<0.0002	<0.0002		<0.0002		<0.0002	<0.0002		<0.0002		<0.0002	
Silver (TRC)	mg/L	<0.0002		<0.0002			<0.0002			<0.0002		<0.0002	<0.0002			<0.0002		<0.0002			<0.0002		<0.0002		<0.0002
Strontium (DIS)	mg/L		<0.0002		0.0003	<0.0002		<0.0002	<0.0002		<0.0002			<0.0002	<0.0002		<0.0002		<0.0002	<0.0002		<0.0002		<0.0002	
Strontium (TRC)	mg/L	<0.0002		<0.0002			<0.0002			<0.0002		0.0004	<0.0003			<0.0003		<0.0002			<0.0002		0.0004		<0.0002
Thallium (DIS)	mg/L		<0.0002		<0.0002	<0.0002		<0.0002	<0.0002		<0.0002			<0.0002	<0.0002		<0.0002		<0.0002	<0.0002		<0.0002		<0.0002	
Thallium (TRC)	mg/L	<0.0002		<0.0002			<0.0002			<0.0002		<0.0002	<0.0002			<0.0002		<0.0002			<0.0002		<0.0002		<0.0002
Uranium (DIS)	mg/L		<0.0002		<0.0002	<0.0002		<0.0002	<0.0002		<0.0002			<0.0002	<0.0002		<0.0002		<0.0002	<0.0002		<0.0002		<0.0002	
Uranium (TRC)	mg/L	<0.0002		<0.0002			<0.0002			<0.0002		<0.0002	<0.0002			<0.0002		<0.0002			<0.0002		<0.0002		<0.0002
Zinc (DIS)	mg/L		<0.002		<0.002	<0.002		<0.002	<0.002		<0.002			<0.002	<0.002		<0.002		<0.002	<0.002		<0.002		<0.002	
Zinc (TRC)	mg/L	<0.002		<0.002			<0.002			<0.002		0.002	<0.002			<0.008		<0.002			<0.004		<0.004		<0.002

Definitions:

J = Field Duplicate sample exceeded QA/QC comparison control limits

U = Field Blank sample exceeded QA/QC comparison control limits

H = Holding time exceeded QA/QC comparison control limits

D = Reporting limit increased due to sample matrix interference

L = The lowest available reporting limit was used per method used for analysis

Station Name	Reporting Units	DI-Blank	DI-Blank	DI-Blank	DI-Blank	RINSATE BLANK	RINSATE BLANK	RINSATE BLANK	RINSATE BLANK
Sample Date		11/13/19 12:00	11/13/19 12:30	12/20/19 01:00	12/20/19 02:00	3/28/19 13:45	6/21/19 12:50	9/20/19 11:20	11/13/19 16:00
Sample ID		BBC-1911-134	BBC-1911-217	BBC-1912-121	BBC-1912-120	BBC-1903-223	BBC-1906-233	BBC-1909-228	BBC-1911-227
Lab Name		Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
Remarks		Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank
Lab Sample ID		H19110279-009	H19110302-006	H19120486-006	H19120487-007	H19030547-009	H19060562-013	H19090556-025	H19110301-013
Physical Parameters									
pH	s.u.								
pH Measurement Temp	Deg C								
Total Dissolved Solids	mg/L	<10	<10	<10	<10	<10	<10	<10	<10
Total Suspended Solids	mg/L	<10	<10	<10	<4	<10	<10	<10	<10
Major Constituents - Commons Ions									
Alkalinity as CaCO3	mg/L	<4	<4	<4	<4	<4	<4	<4	<4
Calcium (DIS)	mg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloride	mg/L	<1	<1	<1	<1	<1	<1	<1	<1
Fluoride	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hardness as CaCO3	mg/L	2	<1	<1	<1	<1	<1	<1	<1
Magnesium (DIS)	mg/L	<1	<1	<1	<1	<1	<1	<1	<1
Potassium (DIS)	mg/L	<1	<1	<1	<1	<1	<1	<1	<1
Sodium (DIS)	mg/L	<1	<1	<1	<1	<1	<1	<1	<1
Sulfate	mg/L	<1	<1	<1	<1	<1	<1	<1	<1
Nutrients									
Nitrate + Nitrite as N	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phosphorus (TOT)	mg/L				<0.003				
Phosphorus (TRC)	mg/L								
Total Nitrogen as N (Persulfate)	mg/L				<0.04				
Metals - Trace Constituents									
Aluminum (DIS)	mg/L	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009
Antimony (DIS)	mg/L	<0.0005	<0.0005	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005
Antimony (TRC)	mg/L				<0.0005				
Arsenic (DIS)	mg/L	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
Arsenic (TRC)	mg/L				<0.001				
Barium (DIS)	mg/L	<0.003	<0.003	<0.003		<0.003	<0.003	<0.003	<0.003
Barium (TRC)	mg/L				<0.003				
Beryllium (DIS)	mg/L	<0.0008	<0.0008	<0.0008		<0.0008	<0.0008	<0.0008	<0.0008
Beryllium (TRC)	mg/L				<0.0008				
Cadmium (DIS)	mg/L	<0.00003	<0.00003	<0.00003		<0.00003	<0.00003	<0.00003	<0.00003
Cadmium (TRC)	mg/L				<0.00003				
Chromium (DIS)	mg/L	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01
Chromium (TRC)	mg/L				<0.01				
Cobalt (DIS)	mg/L	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01
Cobalt (TRC)	mg/L				<0.01				
Copper (DIS)	mg/L	<0.002	<0.002	<0.002		<0.002	<0.002	<0.002	<0.002
Copper (TRC)	mg/L				<0.002				
Iron (DIS)	mg/L	0.03	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
Iron (TRC)	mg/L				<0.02				
Lead (DIS)	mg/L	<0.0003	<0.0003	<0.0003		<0.0003	<0.0003	<0.0003	<0.0003
Lead (TRC)	mg/L				<0.0003				
Manganese (DIS)	mg/L	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005
Manganese (TRC)	mg/L				<0.005				
Mercury (DIS)	ug/L	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005
Mercury (TRC)	ug/L				<0.005				
Molybdenum (DIS)	mg/L	<0.002	<0.002	<0.002		<0.002	<0.002	<0.002	<0.002
Molybdenum (TRC)	mg/L				<0.002				
Nickel (DIS)	mg/L	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
Nickel (TRC)	mg/L				<0.001				
Selenium (DIS)	mg/L	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002
Selenium (TRC)	mg/L				<0.0002				
Silver (DIS)	mg/L	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002
Silver (TRC)	mg/L				<0.0002				
Strontium (DIS)	mg/L	0.0004	<0.0002	<0.0002		<0.0002	<0.0002	0.0003	<0.0002
Strontium (TRC)	mg/L				<0.0002				
Thallium (DIS)	mg/L	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002
Thallium (TRC)	mg/L				<0.0002				
Uranium (DIS)	mg/L	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002
Uranium (TRC)	mg/L				<0.0002				
Zinc (DIS)	mg/L	<0.002	<0.002	<0.002		<0.002	<0.002	<0.002	<0.002
Zinc (TRC)	mg/L				<0.002				

Definitions:

J = Field Duplicate sample exceeded QA/QC co

U = Field Blank sample exceeded QA/QC comp

H = Holding time exceeded QA/QC comparisor

D = Reporting limit increased due to sample ma

L = The lowest available reporting limit was us

QUALITY CONTROL / QUALITY ASSURANCE
DATA VERIFICATION REPORT

BLACK BUTTE COPPER
WATER RESOURCE MONITORING

JANUARY 2019

Prepared by
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3020 Bozeman Avenue
Helena, MT 59601

MAY 2019

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APPENDIX 2: DATABASE SUMMARY REPORT

GLOSSARY OF TERMS

CCB ..... Continuing Calibration Blank

CCV ..... Continuing Calibration Verification

CLP ..... Contract Laboratory Program

CRDL..... Contract Required Detection Limit

DIé é é é é Deionized Water

FAA ..... Flame Atomic Absorption

GFAA..... Graphite Furnace Atomic Absorption

HGAA ..... Hydride Generation Atomic Absorption

ICB..... Initial Calibration Blank

ICP ..... Inductively Coupled Plasma

ICV ..... Initial Calibration Verification

IDL..... Instrument Detection Limit

LCS ..... Laboratory Control Sample

MSA..... Method of Standard Additions

PB ..... Preparation Blank

PRDL ..... Project Required Detection Limit

QAPP ..... Quality Assurance Project Plan

QC..... Quality Control

RPD..... Relative Percent Difference

RSD..... Relative Standard Deviation

SOW..... Statement of Work

TDS..... Total Dissolved Solids

DATA VALIDATION REPORT

1. INTRODUCTION

This validation applies to 23 samples collected for the Black Butte Tintina surface water and groundwater monitoring program. All sampling occurred in January 2019. All samples were submitted to Energy Laboratories in Helena, Montana and were assigned Laboratory IDs: H19010185 and H19010186. The total number of samples included: 9 groundwater and surface water samples including 2 field duplicates, 10 site observations and 2 field deionized (DI) blanks.

- Validation procedures used are generally consistent with:
  (Check all that apply)
  _X_ EPA CLP National Functional Guidelines for Inorganics Data Review
  _X_ EPA CLP National Functional Guidelines for Organic Data Review
  _X_ Montana Department of Environmental Quality, Data Validation Guidelines for Evaluating Analytical Data, Hydrometrics, September 2010

2. DELIVERABLES

- All laboratory document deliverables were present as specified in the CLP-Statement of Work and/or the project contract
  _X_ Yes
  ___No

- All documentation of field procedures was provided as required
  _X_ Yes
  ___No

3. FIELD QUALITY CONTROL SAMPLES

- Field blanks
  Please note that the highest blank value associated with any particular analyte is the blank value used for the flagging process.
  DI, trip, rinsate, or any other field blanks have been carried out at the proper frequency
  _X_ Yes
  ___No

  Reported results on the field blanks are less than the contract required detection limits (CRDL) or the project required detection limits (PRDL) if project detection limits have been specified
  _X_ Yes
  ___No

- Field duplicates
  Field duplicates have been collected at the proper frequency
  _X_ Yes
  ___No

  Field duplicate relative percent differences (RPDs) were within the required control limits (25 percent or less for water matrix and 50 percent or less for soil matrix)
  _X_ Yes
  ___No

4. LABORATORY PROCEDURES

- Laboratory Case Narrative Notes any non conformance issues with the analytical data
  ____Yes
  ____No

_X_ NA

- Samples were received by the laboratory at the proper temperature
  _X_ Yes
  ___ No

- Holding times met
  _X_ Yes
  ___ No

- Consistency with project requirements
  _X_ Yes
  ___ No

- Sample Conditions met at Check-in
  _X_ Yes
  ___ No

- Reporting units appropriate for the associated sample matrix and methods of analysis
  _X_ Yes
  ___ No

- Project specified methods were used
  _X_ Yesï see following list of methods used
  ___ No
  NOTES: The following methods were used during analyses: A2540D, A2540C, A2320B, E300.0, A4500-F C, A2340B, E353.2, A4500-N C, E365.1, E200.8, and E200.7.

- Detection Limits met project required detection limits (PRDL)
  _X_ Yesï see following notes
  ___ No
  NOTES: It should be noted that total dissolved solids and strontium had a reporting limit increases due to sample matrix interference (D). TDS had a limit of 10 mg/l used not the requested 4 mg/l. Strontium had the 0.0003 mg/l reporting limit was used in place of the requested 0.0002 mg/l. In addition, a reporting limit of 0.01 mg/l was used for nitrate + nitrite as n as replacement of the 0.003 mg/l requested.

5. INITIAL OR CONTINUING CALIBRATION VERIFICATION RESULTS

- Initial or Continuing Calibration Verification samples were within acceptable limits
  _X_ Yes
  ___ No

6. LABORATORY BLANKS

- **PREPARATION/METHOD BLANKS**

  Preparation/Method blanks were prepared and analyzed at the required frequency
  _X_ Yes
  ___ No

  All analytes in the preparation blank were less than the CRDL (or PRDL if a project detection limit has been specified)
  _X_ Yes

___No

7. MATRIX SPIKE /MATRIX SPIKE DUPLICATES (MS/MSD)

- Matrix spike samples were analyzed at the proper frequency
  _X_Yes
  ____No

- Matrix spike recoveries were within control limits
  _X_Yes
  ___No

- Matrix spike RPDôs were within control limits
  _X_Yes
  ____No

- Matrix spike duplicate samples were analyzed at the proper frequency
  _X_Yes
  ____No

- Matrix spike duplicate RPDôs were within control limits
  _X_Yes
  ____No

- Matrix spike duplicate recoveries were within the laboratory specified control limits.
  _X_Yes
  ____No

8. LABORATORY CONTROL SAMPLES

- LCS Samples

  Laboratory Control Samples used the correct matrix and concentrations
  ___Yes
  ___No
  _X_NA

  Laboratory Control Samples were prepared and analyzed at the required frequency
  ___Yes
  ___No
  _X_NA

  All analytes in the laboratory control samples were less than the control limits specified
  _X_Yes
  ____No

9. DATA QUALITY OBJECTIVES

- Project data quality objectives (DQOs) met
  _X_Yes
  ___No

Accuracy

Accuracy for this project is the degree of agreement between an analytical measurement and a reference accepted as a true value. The accuracy of a measurement system can be affected by errors introduced by field contamination, sample preservation, sample handling, sample preparation and analytical techniques. Analysis of MS/MSD samples, laboratory control spikes (LCS) or blank spikes, surrogate standards and method blanks are typically used to calculate the percent recovery for evaluating accuracy. Accuracy for this sampling event was 100 percent.

Precision

Precision for this project is the degree of mutual agreement between individual measurements of the same property under similar conditions. Combined field and laboratory precision is evaluated by collecting and analyzing field duplicate and then calculating the variance between the samples, typically as a relative percent difference (RPD). Laboratory analytical precision is evaluated by analyzing matrix spike/matrix spike duplicate samples and using the results to calculate an RPD. The combined precision was 100 percent for this sampling event for both laboratory and field.

Representativeness

Representativeness for this project is the degree to which sample data accurately and precisely represent the characteristics of a population, and variations in a parameter at a sampling point or an environmental condition that they are intended to represent. Typically representative data will be obtained through careful selection of sampling locations and analytical parameters; proper collection and handling of samples and through use and consistent application of established field and laboratory procedures. Evaluation of field and laboratory blank samples for presence of contaminants can be useful in evaluating representativeness of sample results. Both laboratory and field representativeness for this sampling event was 100 percent.

Completeness

The target completeness for this project is the percent of the measurements valid (not rejected). Valid data are obtained when samples are collected and analyzed in accordance with quality control procedures outlined in the SAP, and when none of the QC criteria that affect data usability are exceeded. Once data validation is complete the number of useable sample results is divided by the total number of sample results planned for the investigation to determine the percent completeness. Completeness for this sampling event was 100 percent.

Comparability

Comparability is the expression of the confidence with which one data set can be compared with another. Comparability of data is achieved by consistently following standard field and laboratory procedures and by using standard measurement units in reporting analytical data. This criterion was met.

REFERENCES

Montana Department of Environmental Quality, Data Validation Guidelines for Evaluating Analytical Data (Updated August 5, 2010)

EPA, 2017a. National Functional Guidelines for Organic Superfund Methods Data Review. EPA-540-R-2017-002. Office of Superfund Remediation and Technology Innovation. January 2017.

EPA, 2017b. National Functional Guidelines for Inorganic Superfund Methods Data Review. EPA-540-R-2017-001. Office of Superfund Remediation and Technology Innovation. January 2017.

Hem, J.D., 1992. Study and Interpretation of the Chemical Characteristics of Natural Water, 3rd edition. US Geological Survey Water Supply Paper 2254.

APPENDIX 1

TABLES

TABLE 1.

DATA VALIDATION CODES AND DEFINITIONS

CODE	DEFINITION
J	-The associated numerical value is an estimated quantity because quality control criteria were not met.
U	- Blank contamination. Indicates possible high bias and / or false positive. The associated value is an estimate.
R	- Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis is necessary for verification.
A	- Anomalous data. No apparent explanation for discrepancy in data. (Not an EPA code.)

Table 2. Summary of Flagged Data

StationName	Sample Date	Field Sample Id	Lab Name	Lab Sample Id	Parameter Name	Sample Result	Reporting Units	Validation Flag	Exceedance Type

Black Butte Mine Data Comparison Summary

Report Date: May 8, 2019

SAMPLE NO BBC-1901-121 LAB NO: z | STATION:DS-1

01/10/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Gallons Per Min)	0	03/25/15-03/26/19	OBS	27	27	0.1	62.3	4.9	5.9	11.9	0.4	L

SAMPLE NO BBC-1901-115 LAB NO: z | STATION:DS-3

01/10/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Gallons Per Min)	0	08/06/14-09/18/18	OBS	24	24	0.5	159.0	4.0	5.4	22.2	0.2	L

SAMPLE NO BBC-1901-116 LAB NO: z | STATION:DS-4

01/10/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Gallons Per Min)	0	10/13/11-08/29/18	OBS	10	8	< 1	7.5	2.6	2.4	3.5	0.7	L

SAMPLE NO BBC-1901-120 LAB NO: z | STATION:SP-10

01/10/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Gallons Per Min)	0	05/23/18-03/26/19	OBS	8	8	0.0	59.7	2.0	1.9	14.8	0.1	L

SAMPLE NO BBC-1901-117 LAB NO: z | STATION:SP-3

01/10/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Gallons Per Min)	0	07/20/11-11/16/18	OBS	25	24	< 0	5.4	0.6	0.6	1.6	0.4	L

SAMPLE NO BBC-1901-109 LAB NO: H19010186-001 | STATION:SP-4

01/10/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	9.7	07/21/11-03/26/19	O	50	50	6.7	14.0	9.8	9.7	1.4	0.1	
pH Fld (s.u.)	8.14	07/21/11-03/26/19	O	49	49	6.95	8.63	7.7	7.71	0.29	1.52	
SC Fld (umhos/cm)	406	07/21/11-03/26/19	O	50	50	162.0	481.0	420.4	434	46.9	0.3	
Flow (Gallons Per Min)	3.4	07/21/11-03/26/19	O	42	42	0.0	50.3	2.8	5.4	9.3	0.1	
Water Temp (Deg C)	5.2	07/21/11-03/26/19	O	49	49	0.1	12.2	5.6	6.5	2.2	0.2	
TDS (mg/L)	222	07/21/11-03/26/19	O	50	50	202.0	272.0	247.2	251	14	1.8	
TSS (mg/L)	10	08/28/13-03/26/19	O	47	29	5.0	890.0	21.3	12	125.7	0.1	
Tot Alk (mg/L)	210	07/21/11-03/26/19	O	50	50	190.0	210.0	201.4	200	4.5	1.9	H
Ca (mg/L)	53	07/21/11-03/26/19	O	50	50	42.0	56.0	50.8	51	2.5	0.9	
Chloride (mg/L)	< 1	07/21/11-03/26/19	O	50	14	1.0	1.0					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

F (mg/L)	0.2	07/21/11-03/26/19	O	50	50	0.2	0.3	0.2	0.2	0	0.0	L
Tot Hard (mg/L)	248	07/21/11-03/26/19	O	50	50	208.0	255.0	236.5	238	11	1.0	
Mg (mg/L)	28	07/21/11-03/26/19	O	50	50	24.0	29.0	26.6	27	1.2	1.2	
K (mg/L)	2	07/21/11-03/26/19	O	50	50	1.0	2.0	1.9	2	0.3	0.4	H
Na (mg/L)	2	07/21/11-03/26/19	O	50	50	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	38	07/21/11-03/26/19	O	50	50	10.0	45.0	35.4	38	6.6	0.4	
Nitrate + (mg/L)	0.25	07/21/11-03/26/19	O	50	50	0.18	0.35	0.25	0.25	0.03	0.01	
Al (DIS) (mg/L)	0.013	07/21/11-03/26/19	O	50	4	< 0.009	0.031					
Sb (DIS) (mg/L)	< 0.0005	07/21/11-03/26/19	O	49	0	< 0.0005	< .003					
As (DIS) (mg/L)	< 0.001	07/21/11-03/26/19	O	49	0	< 0.001	< .003					
Ba (DIS) (mg/L)	0.114	07/21/11-03/26/19	O	49	49	0.101	0.121	0.112	0.112	0.005	0.459	
Be (DIS) (mg/L)	< 0.0008	07/21/11-03/26/19	O	49	0	< 0.0008	< .001					
Cd (DIS) (mg/L)	< 0	07/21/11-03/26/19	O	49	0	< 0	< .00008					
Cr (DIS) (mg/L)	< 0.01	07/21/11-03/26/19	O	49	0	< 0	< .01					
Co (DIS) (mg/L)	< 0.01	07/21/11-03/26/19	O	49	0	< 0.01	< .01					
Cu (DIS) (mg/L)	< 0.002	07/21/11-03/26/19	O	49	1	< 0.001	0.017					
Fe (DIS) (mg/L)	0.02	07/21/11-03/26/19	O	49	11	< 0.02	0.14					
Pb (DIS) (mg/L)	< 0.0003	07/21/11-03/26/19	O	49	0	< 0.0003	< .0005					
Mn (DIS) (mg/L)	< 0.005	07/21/11-03/26/19	O	49	23	0.004	0.038					
Hg (DIS) (ug/L)	< 0.005	07/21/11-03/26/19	O	48	1	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	07/21/11-03/26/19	O	49	0	< 0.001	< .005					
Ni (DIS) (mg/L)	< 0.001	07/21/11-03/26/19	O	49	0	< 0.001	< .01					
Se (DIS) (mg/L)	0.0004	07/21/11-03/26/19	O	49	45	< 0.0002	< .001	0.0004	0.0004	0.0001	0.1629	
Ag (DIS) (mg/L)	< 0.0002	07/21/11-03/26/19	O	49	0	< 0.0002	< .0005					
Sr (DIS) (mg/L)	0.0742	07/21/11-03/26/19	O	49	46	0.0672	< .1	0.074	0.073	0.0069	0.0308	
Tl (DIS) (mg/L)	0.0004	07/21/11-03/26/19	O	49	49	0.0002	0.0004	0.0003	0.0003	0.0001	1.0327	H
U (DIS) (mg/L)	0.0005	07/21/11-03/26/19	O	49	9	0.0004	< .008					
Zn (DIS) (mg/L)	< 0.002	07/21/11-03/26/19	O	49	14	< 0.002	< .01					

SAMPLE NO BBC-1901-112 LAB NO: H19010186-004

STATION:SP-7

PARAMETER	01/10/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	5.83	03/26/15-03/27/19	O	47	47	2.3	10.98	3.72	3.54	1.62	1.3
pH Fld (s.u.)	7.54	03/26/15-03/27/19	O	46	46	6.17	8.18	7.38	7.38	0.33	0.49
SC Fld (umhos/cm)	311	03/26/15-03/27/19	O	47	47	196.0	354.0	320.7	330	28.8	0.3

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Flow (Gallons Per Min)	15.3	03/26/15-03/27/19	O	40	40	6.7	136.0	17.9	15.3	25.4	0.1	
Water Temp (Deg C)	5.07	03/26/15-03/27/19	O	46	46	5.07	7.4	6.5	6.62	0.63	2.26	L
TDS (mg/L)	174	03/26/15-03/27/19	O	47	47	173.0	200.0	187.1	187	6.8	1.9	
TDS (mg/L)	168	03/26/15-03/27/19	DUP	47	47	173.0	200.0	187.1	187	6.8	2.8	L
TSS (mg/L)	< 10	03/26/15-03/27/19	O	47	7	< 4	146.0					
TSS (mg/L)	< 10	03/26/15-03/27/19	DUP	47	7	< 4	146.0					
Tot Alk (mg/L)	170	03/26/15-03/27/19	O	47	47	160.0	170.0	166.3	170	4.7	0.8	H
Tot Alk (mg/L)	170	03/26/15-03/27/19	DUP	47	47	160.0	170.0	166.3	170	4.7	0.8	H
Ca (mg/L)	43	03/26/15-03/27/19	DUP	47	47	40.0	46.0	42.9	43	1.4	0.1	
Ca (mg/L)	43	03/26/15-03/27/19	O	47	47	40.0	46.0	42.9	43	1.4	0.1	
Chloride (mg/L)	2	03/26/15-03/27/19	O	47	47	1.0	2.0	1.7	2	0.3	0.8	H
Chloride (mg/L)	2	03/26/15-03/27/19	DUP	47	47	1.0	2.0	1.7	2	0.3	0.8	H
F (mg/L)	0.3	03/26/15-03/27/19	O	47	47	0.3	0.4	0.3	0.3	0	0.0	L
F (mg/L)	0.3	03/26/15-03/27/19	DUP	47	47	0.3	0.4	0.3	0.3	0	0.0	L
Tot Hard (mg/L)	170	03/26/15-03/27/19	DUP	47	47	153.0	178.0	168.1	169	5.5	0.3	
Tot Hard (mg/L)	171	03/26/15-03/27/19	O	47	47	153.0	178.0	168.1	169	5.5	0.5	
Mg (mg/L)	15	03/26/15-03/27/19	O	47	47	13.0	16.0	14.8	15	0.6	0.4	
Mg (mg/L)	15	03/26/15-03/27/19	DUP	47	47	13.0	16.0	14.8	15	0.6	0.4	
K (mg/L)	3	03/26/15-03/27/19	O	47	47	2.0	3.0	2.7	3	0.4	0.7	H
K (mg/L)	3	03/26/15-03/27/19	DUP	47	47	2.0	3.0	2.7	3	0.4	0.7	H
Na (mg/L)	5	03/26/15-03/27/19	O	47	47	4.0	5.0	4.7	5	0.5	0.6	H
Na (mg/L)	5	03/26/15-03/27/19	DUP	47	47	4.0	5.0	4.7	5	0.5	0.6	H
SO4 (mg/L)	11	03/26/15-03/27/19	O	47	47	7.0	12.0	9.6	10	1.1	1.3	
SO4 (mg/L)	11	03/26/15-03/27/19	DUP	47	47	7.0	12.0	9.6	10	1.1	1.3	
Nitrate + (mg/L)	0.3	03/26/15-03/27/19	O	47	47	0.3	0.4	0.3	0.3	0	0.0	
Nitrate + (mg/L)	0.3	03/26/15-03/27/19	DUP	47	47	0.3	0.4	0.3	0.3	0	0.0	
Al (DIS) (mg/L)	< 0.009	03/26/15-03/27/19	O	47	2	< 0.009	0.311					
Al (DIS) (mg/L)	< 0.009	03/26/15-03/27/19	DUP	47	2	< 0.009	0.311					
Sb (DIS) (mg/L)	< 0.0005	03/26/15-03/27/19	O	46	0	< 0.0005	0.0005					
Sb (DIS) (mg/L)	< 0.0005	03/26/15-03/27/19	DUP	46	0	< 0.0005	0.0005					
As (DIS) (mg/L)	0.004	03/26/15-03/27/19	DUP	46	46	0.003	0.004	0.004	0.004	0	0.0	H
As (DIS) (mg/L)	0.004	03/26/15-03/27/19	O	46	46	0.003	0.004	0.004	0.004	0	0.0	H
Ba (DIS) (mg/L)	0.114	03/26/15-03/27/19	DUP	46	46	0.1	0.122	0.112	0.112	0.005	0.469	
Ba (DIS) (mg/L)	0.113	03/26/15-03/27/19	O	46	46	0.1	0.122	0.112	0.112	0.005	0.269	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Be (DIS) (mg/L)	< 0.0008	03/26/15-03/27/19	O	46	0	< 0.0008	: 0 .0008					
Be (DIS) (mg/L)	< 0.0008	03/26/15-03/27/19	DUP	46	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	03/26/15-03/27/19	O	46	0	< 0	: .00003					
Cd (DIS) (mg/L)	< 0	03/26/15-03/27/19	DUP	46	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	03/26/15-03/27/19	O	46	0	< 0.01	< 0 .01					
Cr (DIS) (mg/L)	< 0.01	03/26/15-03/27/19	DUP	46	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	03/26/15-03/27/19	DUP	46	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	03/26/15-03/27/19	O	46	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	03/26/15-03/27/19	DUP	46	2	< 0.002	0.015					
Cu (DIS) (mg/L)	< 0.002	03/26/15-03/27/19	O	46	2	< 0.002	0.015					
Fe (DIS) (mg/L)	< 0.02	03/26/15-03/27/19	O	46	4	< 0.02	0.36					
Fe (DIS) (mg/L)	< 0.02	03/26/15-03/27/19	DUP	46	4	< 0.02	0.36					
Pb (DIS) (mg/L)	< 0.0003	03/26/15-03/27/19	DUP	46	1	< 0.0003	0.0006					
Pb (DIS) (mg/L)	< 0.0003	03/26/15-03/27/19	O	46	1	< 0.0003	0.0006					
Mn (DIS) (mg/L)	< 0.005	03/26/15-03/27/19	DUP	46	1	< 0.005	< 0 .005					
Mn (DIS) (mg/L)	< 0.005	03/26/15-03/27/19	O	46	1	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	03/26/15-03/27/19	O	46	1	< 0	< .005					
Hg (DIS) (ug/L)	< 0.005	03/26/15-03/27/19	DUP	46	1	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	03/26/15-03/27/19	DUP	46	0	< 0.002	< 0 .002					
Mo (DIS) (mg/L)	< 0.002	03/26/15-03/27/19	O	46	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	03/26/15-03/27/19	O	46	0	< 0.001	< 0 .001					
Ni (DIS) (mg/L)	< 0.001	03/26/15-03/27/19	DUP	46	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	0.0003	03/26/15-03/27/19	DUP	46	42	0.0002	< .0004	0.0003	0.0003	0.0001	0.1408	
Se (DIS) (mg/L)	0.0004	03/26/15-03/27/19	O	46	42	0.0002	< .0004	0.0003	0.0003	0.0001	1.1408	H
Ag (DIS) (mg/L)	< 0.0002	03/26/15-03/27/19	O	46	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	03/26/15-03/27/19	DUP	46	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.17	03/26/15-03/27/19	O	46	46	0.15	0.18	0.17	0.17	0.01	0.41	
Sr (DIS) (mg/L)	0.172	03/26/15-03/27/19	DUP	46	46	0.15	0.181	0.166	0.166	0.006	1.016	
Tl (DIS) (mg/L)	0.001	03/26/15-03/27/19	DUP	46	46	0.001	0.001	0.001	0.001	0	0.0	
Tl (DIS) (mg/L)	0.001	03/26/15-03/27/19	O	46	46	0.001	0.001	0.001	0.001	0	0.0	
U (DIS) (mg/L)	0.0009	03/26/15-03/27/19	O	46	5	0.0009	< .008					
U (DIS) (mg/L)	0.0009	03/26/15-03/27/19	DUP	46	5	0.0009	< .008					
Zn (DIS) (mg/L)	< 0.002	03/26/15-03/27/19	DUP	46	2	< 0.002	0.003					
Zn (DIS) (mg/L)	< 0.002	03/26/15-03/27/19	O	46	2	< 0.002	0.003					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: May 8, 2019

SAMPLE NO BBC-1901-100	LAB NO: H19010185-001	STATION:SW-1

PARAMETER	01/10/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	14.32	05/24/11-03/27/19	O	74	74	3.91	15.0	10.95	10.89	1.94	1.74	
pH Fld (s.u.)	7.88	05/24/11-03/27/19	O	73	73	5.3	8.71	7.82	8.03	0.66	0.09	
SC Fld (umhos/cm)	319	05/24/11-03/27/19	O	74	74	176.0	363.0	286.2	311	52.4	0.6	
Water Temp (Deg C)	-0.84	05/24/11-03/27/19	O	74	74	-0.97	14.5	0.48	3.35	4.77	0.28	
TDS (mg/L)	176	05/24/11-03/27/19	O	71	71	107.0	227.0	169.8	180	27.1	0.2	
TSS (mg/L)	< 4	05/30/12-03/27/19	O	67	25	< 4	43.0					
Tot Alk (mg/L)	180	05/24/11-03/27/19	O	71	71	87.0	200.0	153.6	170	30.3	0.9	
Ca (mg/L)	50	05/24/11-03/27/19	O	71	71	23.0	55.0	42.5	46	8.6	0.9	
Chloride (mg/L)	2	05/24/11-03/27/19	O	71	70	1.0	5.0	1.4	1	0.7	0.9	
F (mg/L)	0.1	05/24/11-03/27/19	O	71	22	< 0.1	0.2					
Tot Hard (mg/L)	180	05/24/11-03/27/19	O	71	70	< 7	199.0	145.6	164	35	1.0	
Mg (mg/L)	13	05/24/11-03/27/19	O	71	71	6.0	15.0	11.2	12	2.4	0.7	
K (mg/L)	1	05/24/11-03/27/19	O	71	68	1.0	3.0	1.1	1	0.5	0.2	L
Na (mg/L)	2	05/24/11-03/27/19	O	71	71	1.0	3.0	2.2	2	0.5	0.3	
SO4 (mg/L)	7	05/24/11-03/27/19	O	71	71	2.0	18.0	5.2	5	2.1	0.9	
Nitrate + (mg/L)	0.12	05/24/11-03/27/19	O	71	34	< 0.01	0.15					
P (mg/L)	0.009	05/16/14-03/27/19	O	57	53	< 0.003	0.09	0.012	0.011	0.015	0.23	
Total Pers (mg/L)	0.19	04/29/15-03/27/19	O	45	41	< 0	1.12	0.13	0.15	0.17	0.36	
Al (DIS) (mg/L)	< 0.009	05/24/11-03/27/19	O	71	26	< 0.009	0.333					
Sb (TRC) (mg/L)	< 0.0005	05/24/11-03/27/19	O	71	0	< 0.0005	< .005					
As (TRC) (mg/L)	< 0.001	05/24/11-03/27/19	O	71	12	< 0.001	< .003					
Ba (TRC) (mg/L)	0.105	05/24/11-03/27/19	O	71	71	0.083	0.127	0.104	0.104	0.009	0.079	
Be (TRC) (mg/L)	< 0.0008	05/24/11-03/27/19	O	71	0	< 0.0008	< .001					
Cd (TRC) (mg/L)	< 0	05/24/11-03/27/19	O	71	5	< 0	0.0002					
Cr (TRC) (mg/L)	< 0.01	05/24/11-03/27/19	O	71	2	< 0	< .01					
Co (TRC) (mg/L)	< 0.01	05/24/11-03/27/19	O	71	0	< 0.01	< .01					
Cu (TRC) (mg/L)	< 0.002	05/24/11-03/27/19	O	71	5	< 0.001	0.003					
Fe (TRC) (mg/L)	0.17	05/24/11-03/27/19	O	71	71	0.11	1.86	0.23	0.17	0.35	0.17	
Pb (TRC) (mg/L)	< 0.0003	05/24/11-03/27/19	O	71	13	< 0.0003	0.0015					
Mn (TRC) (mg/L)	0.015	05/24/11-03/27/19	O	71	71	0.009	0.053	0.017	0.016	0.011	0.199	
Hg (TRC) (ug/L)	< 0.005	05/24/11-03/27/19	O	71	11	< 0	0.007					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Mo (TRC) (mg/L)	< 0.002	05/24/11-03/27/19	O	71	0	< 0.001	< .005					
Ni (TRC) (mg/L)	< 0.001	05/24/11-03/27/19	O	71	10	< 0.001	< .01					
Se (TRC) (mg/L)	< 0.0002	05/24/11-03/27/19	O	71	0	< 0.0002	< .001					
Ag (TRC) (mg/L)	< 0.0002	05/24/11-03/27/19	O	71	0	< 0.0002	< .0005					
Sr (TRC) (mg/L)	0.127	05/24/11-03/27/19	O	71	68	0.078	0.147	0.116	0.119	0.016	0.683	
Tl (TRC) (mg/L)	< 0.0002	05/24/11-03/27/19	O	71	0	< 0.0002	: 0 .0002					
U (TRC) (mg/L)	0.0004	05/24/11-03/27/19	O	71	12	< 0.0003	< .008					
Zn (TRC) (mg/L)	< 0.002	05/24/11-03/27/19	O	71	24	< 0.002	< .01					

SAMPLE NO BBC-1901-101 LAB NO: H19010185-002

STATION:SW-2

01/10/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	12.02	05/24/11-03/28/19	O	74	74	6.35	16.18	11.04	10.94	1.72	0.57	
pH Fld (s.u.)	7.74	05/24/11-03/28/19	O	73	73	0.0	8.73	6.76	8.06	1.02	0.96	
SC Fld (umhos/cm)	311	05/24/11-03/28/19	O	74	74	156.0	388.0	278.9	306	53.9	0.6	
Water Temp (Deg C)	-0.92	05/24/11-03/28/19	O	74	74	-1.0	15.8	0.2	3	4.92	0.23	
TDS (mg/L)	170	05/24/11-03/28/19	O	71	71	112.0	223.0	165.5	173	25.2	0.2	
TSS (mg/L)	< 4	05/30/12-03/28/19	O	67	19	4.0	105.0					
Tot Alk (mg/L)	170	05/24/11-03/28/19	O	71	71	80.0	200.0	151.0	160	27.3	0.7	
Ca (mg/L)	49	05/24/11-03/28/19	O	71	71	21.0	58.0	42.7	46	8.1	0.8	
Chloride (mg/L)	1	05/24/11-03/28/19	O	71	69	< 1	5.0	1.3	1	0.7	0.5	L
F (mg/L)	< 0.1	05/24/11-03/28/19	O	71	1	< 0.1	0.4					
Tot Hard (mg/L)	175	05/24/11-03/28/19	O	71	70	< 7	202.0	144.5	164	32.8	0.9	
Mg (mg/L)	13	05/24/11-03/28/19	O	71	71	5.0	15.0	10.8	12	2.1	1.0	
K (mg/L)	1	05/24/11-03/28/19	O	71	66	1.0	2.0	1.0	1	0.1	0.1	L
Na (mg/L)	2	05/24/11-03/28/19	O	71	71	1.0	3.0	2.0	2	0.3	0.1	
SO4 (mg/L)	7	05/24/11-03/28/19	O	71	71	2.0	9.0	5.0	5	1.6	1.3	
Nitrate + (mg/L)	0.1	05/24/11-03/28/19	O	71	35	< 0	0.1					
P (mg/L)	0.008	05/16/14-03/28/19	O	57	49	< 0.003	0.182	0.01	0.008	0.023	0.066	
Total Pers (mg/L)	0.16	04/29/15-03/28/19	O	45	39	< 0	1.39	0.1	0.1	0.25	0.22	
Al (DIS) (mg/L)	0.02	05/24/11-03/28/19	O	71	31	< 0.01	0.39					
Sb (TRC) (mg/L)	< 0.0005	05/24/11-03/28/19	O	71	0	< 0.0005	< .005					
As (TRC) (mg/L)	< 0.001	05/24/11-03/28/19	O	71	1	< 0.001	< .003					
Ba (TRC) (mg/L)	0.091	05/24/11-03/28/19	O	71	71	0.07	0.128	0.094	0.095	0.011	0.312	
Be (TRC) (mg/L)	< 0.0008	05/24/11-03/28/19	O	71	0	< 0.0008	< .001					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Cd (TRC) (mg/L)	< 0	05/24/11-03/28/19	O	71	3	< 0	< .00008				
Cr (TRC) (mg/L)	< 0.01	05/24/11-03/28/19	O	71	1	< 0	< .01				
Co (TRC) (mg/L)	< 0.01	05/24/11-03/28/19	O	71	0	< 0.01	< .01				
Cu (TRC) (mg/L)	< 0.002	05/24/11-03/28/19	O	71	5	< 0.001	0.004				
Fe (TRC) (mg/L)	0.17	05/24/11-03/28/19	O	71	71	0.09	2.49	0.2	0.15	0.34	0.1
Pb (TRC) (mg/L)	< 0.0003	05/24/11-03/28/19	O	71	14	< 0.0003	0.0017				
Mn (TRC) (mg/L)	0.009	05/24/11-03/28/19	O	71	71	0.006	0.116	0.011	0.01	0.013	0.165
Hg (TRC) (ug/L)	< 0.005	05/24/11-03/28/19	O	71	11	< 0	< .005				
Mo (TRC) (mg/L)	< 0.002	05/24/11-03/28/19	O	71	0	< 0.001	< .005				
Ni (TRC) (mg/L)	< 0.001	05/24/11-03/28/19	O	71	11	< 0.001	< .01				
Se (TRC) (mg/L)	< 0.0002	05/24/11-03/28/19	O	71	0	< 0.0002	< .001				
Ag (TRC) (mg/L)	< 0.0002	05/24/11-03/28/19	O	71	0	< 0.0002	< .0005				
Sr (TRC) (mg/L)	0.124	05/24/11-03/28/19	O	71	69	0.082	0.15	0.119	0.123	0.015	0.36
Tl (TRC) (mg/L)	< 0.0002	05/24/11-03/28/19	O	71	0	< 0.0002	: 0 .0002				
U (TRC) (mg/L)	0.0003	05/24/11-03/28/19	O	71	10	< 0.0003	< .008				
Zn (TRC) (mg/L)	< 0.002	05/24/11-03/28/19	O	71	20	< 0.002	0.014				

SAMPLE NO BBC-1901-122 LAB NO: z

STATION:SW-7

PARAMETER	01/10/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Gallons Per Min)	0	11/26/12-09/19/18	OBS	17	17	0.0	54.8	3.5	6.7	19.8	0.2	L

SAMPLE NO BBC-1901-102 LAB NO: H19010185-003

STATION:USGS-SC1

PARAMETER	01/10/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	11.74	03/24/14-03/28/19	O	61	61	7.12	16.55	11.15	11.16	1.6	0.37	
pH Fld (s.u.)	7.85	03/24/14-03/28/19	O	60	60	6.67	8.67	7.97	8.16	0.43	0.28	
SC Fld (umhos/cm)	341	03/24/14-03/28/19	O	61	61	137.0	408.0	325.2	344	50.2	0.3	
Water Temp (Deg C)	-0.83	03/24/14-03/28/19	O	61	61	-0.98	13.1	0.33	2.8	4.18	0.28	
TDS (mg/L)	188	03/24/14-03/28/19	O	59	59	134.0	230.0	188.8	195	18.8	0.0	
TSS (mg/L)	< 4	03/24/14-03/28/19	O	59	16	< 4	38.0					
Tot Alk (mg/L)	190	03/24/14-03/28/19	O	59	59	120.0	220.0	176.3	180	20.6	0.7	
Ca (mg/L)	55	03/24/14-03/28/19	O	59	59	35.0	61.0	50.6	52	5.7	0.8	
Chloride (mg/L)	1	03/24/14-03/28/19	O	59	59	1.0	5.0	1.5	1.5	0.9	0.5	L
F (mg/L)	< 0.1	03/24/14-03/28/19	O	59	1	< 0.1	< 0 .1					
Tot Hard (mg/L)	196	03/24/14-03/28/19	O	59	58	< 7	214.0	168.3	185	29	1.0	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Mg (mg/L)	14	03/24/14-03/28/19	O	59	59	8.0	15.0	12.6	13	1.5	0.9	
K (mg/L)	1	03/24/14-03/28/19	O	59	59	1.0	1.0	1.0	1	0	0.0	H
Na (mg/L)	2	03/24/14-03/28/19	O	59	59	2.0	3.0	2.1	2	0.3	0.2	L
SO4 (mg/L)	8	03/24/14-03/28/19	O	59	59	3.0	8.0	5.7	6	1.4	1.6	H
Nitrate + (mg/L)	0.11	03/24/14-03/28/19	O	59	41	< 0.01	0.13	0.03	0.03	0.04	2.0	
P (mg/L)	0.005	05/16/14-03/28/19	O	56	41	0.003	0.05	0.007	0.007	0.008	0.266	
Total Pers (mg/L)	0.15	04/29/15-03/28/19	O	45	35	< 0	1.1	0.08	0.09	0.16	0.42	
Al (DIS) (mg/L)	< 0.009	03/24/14-03/28/19	O	59	17	< 0.009	0.189					
Sb (TRC) (mg/L)	< 0.0005	03/24/14-03/28/19	O	59	0	< 0.0005	< 0 .0005					
As (TRC) (mg/L)	< 0.001	03/24/14-03/28/19	O	59	1	< 0.001	< 0 .001					
Ba (TRC) (mg/L)	0.068	03/24/14-03/28/19	O	59	59	0.06	0.088	0.069	0.068	0.005	0.195	
Be (TRC) (mg/L)	< 0.0008	03/24/14-03/28/19	O	59	0	< 0.0008	< 0 .0008					
Cd (TRC) (mg/L)	< 0	03/24/14-03/28/19	O	59	2	< 0	0.0001					
Cr (TRC) (mg/L)	< 0.01	03/24/14-03/28/19	O	59	0	< 0.01	< .01					
Co (TRC) (mg/L)	< 0.01	03/24/14-03/28/19	O	59	0	< 0.01	< .01					
Cu (TRC) (mg/L)	< 0.002	03/24/14-03/28/19	O	59	1	< 0.002	< 0 .002					
Fe (TRC) (mg/L)	0.11	03/24/14-03/28/19	O	59	59	0.07	1.71	0.17	0.12	0.28	0.21	
Pb (TRC) (mg/L)	< 0.0003	03/24/14-03/28/19	O	59	7	< 0.0003	0.0011					
Mn (TRC) (mg/L)	0.007	03/24/14-03/28/19	O	59	59	0.005	0.079	0.009	0.008	0.01	0.227	
Hg (TRC) (ug/L)	< 0.005	03/24/14-03/28/19	O	59	2	< 0	< .005					
Mo (TRC) (mg/L)	< 0.002	03/24/14-03/28/19	O	59	0	< 0.001	< .002					
Ni (TRC) (mg/L)	< 0.001	03/24/14-03/28/19	O	59	7	< 0.001	0.003					
Se (TRC) (mg/L)	< 0.0002	03/24/14-03/28/19	O	59	0	< 0.0002	< .0004					
Ag (TRC) (mg/L)	< 0.0002	03/24/14-03/28/19	O	59	1	< 0.0002	< .0004					
Sr (TRC) (mg/L)	0.148	03/24/14-03/28/19	O	59	59	0.121	0.16	0.142	0.144	0.009	0.65	
Tl (TRC) (mg/L)	< 0.0002	03/24/14-03/28/19	O	59	0	< 0.0002	< 0 .0002					
U (TRC) (mg/L)	0.0004	03/24/14-03/28/19	O	59	6	0.0003	< .008					
Zn (TRC) (mg/L)	< 0.002	03/24/14-03/28/19	O	59	17	< 0.002	0.009					

SAMPLE NO BBC-1901-107 LAB NO: H19010185-006

STATION:DI-Blank

PARAMETER	01/10/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
TDS (mg/L)	< 10	N/A	FB	0							
TDS (mg/L)	< 10	N/A	FB	0							
TSS (mg/L)	< 4	N/A	FB	0							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

TSS (mg/L)	< 10	N/A	FB	0
Tot Alk (mg/L)	< 4	N/A	FB	0
Tot Alk (mg/L)	< 4	N/A	FB	0
Ca (mg/L)	< 1	N/A	FB	0
Ca (mg/L)	< 1	N/A	FB	0
Chloride (mg/L)	< 1	N/A	FB	0
Chloride (mg/L)	< 1	N/A	FB	0
F (mg/L)	< 0.1	N/A	FB	0
F (mg/L)	< 0.1	N/A	FB	0
Tot Hard (mg/L)	< 1	N/A	FB	0
Tot Hard (mg/L)	< 1	N/A	FB	0
Mg (mg/L)	< 1	N/A	FB	0
Mg (mg/L)	< 1	N/A	FB	0
K (mg/L)	< 1	N/A	FB	0
K (mg/L)	< 1	N/A	FB	0
Na (mg/L)	< 1	N/A	FB	0
Na (mg/L)	< 1	N/A	FB	0
SO4 (mg/L)	< 1	N/A	FB	0
SO4 (mg/L)	< 1	N/A	FB	0
Nitrate + (mg/L)	< 0.01	N/A	FB	0
Nitrate + (mg/L)	< 0.01	N/A	FB	0
P (mg/L)	< 0.003	N/A	FB	0
Total Pers (mg/L)	< 0.04	N/A	FB	0
Al (DIS) (mg/L)	< 0.009	N/A	FB	0
Al (DIS) (mg/L)	< 0.009	N/A	FB	0
Sb (DIS) (mg/L)	< 0.0005	N/A	FB	0
Sb (TRC) (mg/L)	< 0.0005	N/A	FB	0
As (TRC) (mg/L)	< 0.001	N/A	FB	0
As (DIS) (mg/L)	< 0.001	N/A	FB	0
Ba (TRC) (mg/L)	< 0.003	N/A	FB	0
Ba (DIS) (mg/L)	< 0.003	N/A	FB	0
Be (TRC) (mg/L)	< 0.0008	N/A	FB	0
Be (DIS) (mg/L)	< 0.0008	N/A	FB	0
Cd (TRC) (mg/L)	< 0	N/A	FB	0

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Cd (DIS) (mg/L)	< 0	N/A	FB	0
Cr (DIS) (mg/L)	< 0.01	N/A	FB	0
Cr (TRC) (mg/L)	< 0.01	N/A	FB	0
Co (TRC) (mg/L)	< 0.01	N/A	FB	0
Co (DIS) (mg/L)	< 0.01	N/A	FB	0
Cu (TRC) (mg/L)	< 0.002	N/A	FB	0
Cu (DIS) (mg/L)	< 0.002	N/A	FB	0
Fe (DIS) (mg/L)	< 0.02	N/A	FB	0
Fe (TRC) (mg/L)	< 0.02	N/A	FB	0
Pb (DIS) (mg/L)	< 0.0003	N/A	FB	0
Pb (TRC) (mg/L)	< 0.0003	N/A	FB	0
Mn (TRC) (mg/L)	< 0.005	N/A	FB	0
Mn (DIS) (mg/L)	< 0.005	N/A	FB	0
Hg (TRC) (ug/L)	< 0.005	N/A	FB	0
Hg (DIS) (ug/L)	< 0.005	N/A	FB	0
Mo (TRC) (mg/L)	< 0.002	N/A	FB	0
Mo (DIS) (mg/L)	< 0.002	N/A	FB	0
Ni (TRC) (mg/L)	< 0.001	N/A	FB	0
Ni (DIS) (mg/L)	< 0.001	N/A	FB	0
Se (TRC) (mg/L)	< 0.0002	N/A	FB	0
Se (DIS) (mg/L)	< 0.0002	N/A	FB	0
Ag (DIS) (mg/L)	< 0.0002	N/A	FB	0
Ag (TRC) (mg/L)	< 0.0002	N/A	FB	0
Sr (DIS) (mg/L)	< 0.0002	N/A	FB	0
Sr (TRC) (mg/L)	< 0.0002	N/A	FB	0
Tl (TRC) (mg/L)	< 0.0002	N/A	FB	0
Tl (DIS) (mg/L)	< 0.0002	N/A	FB	0
U (TRC) (mg/L)	< 0.0002	N/A	FB	0
U (DIS) (mg/L)	< 0.0002	N/A	FB	0
Zn (DIS) (mg/L)	< 0.002	N/A	FB	0
Zn (TRC) (mg/L)	< 0.002	N/A	FB	0

SAMPLE NO BBC-1901-103 LAB NO: H19010185-004

STATION:SW-14

01/10/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

DO (mg/L)	11.28	04/13/16-03/27/19	O	32	32	8.24	15.01	10.74	10.43	1.63	0.33	
pH Fld (s.u.)	7.86	04/13/16-03/27/19	O	31	31	6.07	8.48	7.91	8.05	0.46	0.1	
SC Fld (umhos/cm)	394	04/13/16-03/27/19	O	32	32	263.0	439.0	376.8	396	49.8	0.3	
Water Temp (Deg C)	-0.59	04/13/16-03/27/19	O	32	32	-0.91	14.7	2.06	5	4.63	0.57	
TDS (mg/L)	229	04/13/16-03/27/19	DUP	32	32	157.0	244.0	221.1	226.5	20.6	0.4	
TDS (mg/L)	219	04/13/16-03/27/19	O	32	32	157.0	244.0	221.1	226.5	20.6	0.1	
TSS (mg/L)	< 4	04/13/16-03/27/19	O	32	4	< 4	15.0					
TSS (mg/L)	< 4	04/13/16-03/27/19	DUP	32	4	< 4	15.0					
Tot Alk (mg/L)	220	04/13/16-03/27/19	DUP	32	32	130.0	220.0	202.7	210	24.3	0.7	H
Tot Alk (mg/L)	220	04/13/16-03/27/19	O	32	32	130.0	220.0	202.7	210	24.3	0.7	H
Ca (mg/L)	59	04/13/16-03/27/19	DUP	32	32	34.0	61.0	52.8	54.5	6.5	1.0	
Ca (mg/L)	61	04/13/16-03/27/19	O	32	32	34.0	61.0	52.8	54.5	6.5	1.3	H
Chloride (mg/L)	2	04/13/16-03/27/19	DUP	32	32	1.0	4.0	1.9	2	0.5	0.1	
Chloride (mg/L)	2	04/13/16-03/27/19	O	32	32	1.0	4.0	1.9	2	0.5	0.1	
F (mg/L)	0.2	04/13/16-03/27/19	DUP	32	31	< 0.1	0.2	0.2	0.2	0	0.0	H
F (mg/L)	0.2	04/13/16-03/27/19	O	32	31	< 0.1	0.2	0.2	0.2	0	0.0	H
Tot Hard (mg/L)	230	04/13/16-03/27/19	DUP	32	32	134.0	239.0	208.7	214.5	24.9	0.9	
Tot Hard (mg/L)	239	04/13/16-03/27/19	O	32	32	134.0	239.0	208.7	214.5	24.9	1.2	H
Mg (mg/L)	20	04/13/16-03/27/19	DUP	32	32	12.0	23.0	18.7	19	2.5	0.5	
Mg (mg/L)	21	04/13/16-03/27/19	O	32	32	12.0	23.0	18.7	19	2.5	0.9	
K (mg/L)	1	04/13/16-03/27/19	O	32	31	1.0	4.0	1.1	1	0.7	0.1	L
K (mg/L)	1	04/13/16-03/27/19	DUP	32	31	1.0	4.0	1.1	1	0.7	0.1	L
Na (mg/L)	3	04/13/16-03/27/19	O	32	32	1.0	3.0	2.5	3	0.6	0.9	H
Na (mg/L)	3	04/13/16-03/27/19	DUP	32	32	1.0	3.0	2.5	3	0.6	0.9	H
SO4 (mg/L)	9	04/13/16-03/27/19	O	32	32	6.5	19.0	9.1	8.9	2.9	0.0	
SO4 (mg/L)	9	04/13/16-03/27/19	DUP	32	32	6.5	19.0	9.1	8.9	2.9	0.0	
Nitrate + (mg/L)	0.16	04/13/16-03/27/19	O	32	31	0.01	0.27	0.07	0.09	0.08	1.16	
Nitrate + (mg/L)	0.16	04/13/16-03/27/19	DUP	32	31	0.01	0.27	0.07	0.09	0.08	1.16	
P (mg/L)	0.005	04/13/16-03/27/19	O	32	27	< 0.003	0.18	0.008	0.008	0.035	0.079	
P (mg/L)	0.004	04/13/16-03/27/19	DUP	32	27	< 0.003	0.18	0.008	0.008	0.035	0.108	
Total Pers (mg/L)	0.24	04/13/16-03/27/19	O	29	28	< 0	1.25	0.18	0.21	0.24	0.23	
Total Pers (mg/L)	0.24	04/13/16-03/27/19	DUP	29	28	< 0	1.25	0.18	0.21	0.24	0.23	
Al (DIS) (mg/L)	< 0.009	04/13/16-03/27/19	O	32	3	< 0.009	0.047					
Al (DIS) (mg/L)	< 0.009	04/13/16-03/27/19	DUP	32	3	< 0.009	0.047					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Sb (TRC) (mg/L)	< 0.0005	04/13/16-03/27/19	DUP	32	0	< 0.0005	: 0 .0005					
Sb (TRC) (mg/L)	< 0.0005	04/13/16-03/27/19	O	32	0	< 0.0005	: 0 .0005					
As (TRC) (mg/L)	< 0.001	04/13/16-03/27/19	DUP	32	0	< 0.001	< 0 .001					
As (TRC) (mg/L)	< 0.001	04/13/16-03/27/19	O	32	0	< 0.001	< 0 .001					
Ba (TRC) (mg/L)	0.12	04/13/16-03/27/19	O	32	32	0.08	0.13	0.11	0.12	0.01	0.93	
Ba (TRC) (mg/L)	0.122	04/13/16-03/27/19	DUP	32	32	0.077	0.13	0.111	0.116	0.014	0.807	
Be (TRC) (mg/L)	< 0.0008	04/13/16-03/27/19	DUP	32	0	< 0.0008	: 0 .0008					
Be (TRC) (mg/L)	< 0.0008	04/13/16-03/27/19	O	32	0	< 0.0008	: 0 .0008					
Cd (TRC) (mg/L)	< 0	04/13/16-03/27/19	DUP	32	2	< 0	: .00003					
Cd (TRC) (mg/L)	< 0	04/13/16-03/27/19	O	32	2	< 0	: .00003					
Cr (TRC) (mg/L)	< 0.01	04/13/16-03/27/19	DUP	32	0	< 0.01	< 0 .01					
Cr (TRC) (mg/L)	< 0.01	04/13/16-03/27/19	O	32	0	< 0.01	< 0 .01					
Co (TRC) (mg/L)	< 0.01	04/13/16-03/27/19	DUP	32	0	< 0.01	< 0 .01					
Co (TRC) (mg/L)	< 0.01	04/13/16-03/27/19	O	32	0	< 0.01	< 0 .01					
Cu (TRC) (mg/L)	< 0.002	04/13/16-03/27/19	O	32	0	< 0.002	< 0 .002					
Cu (TRC) (mg/L)	< 0.002	04/13/16-03/27/19	DUP	32	0	< 0.002	< 0 .002					
Fe (TRC) (mg/L)	< 0.02	04/13/16-03/27/19	O	32	29	0.02	0.43	0.06	0.06	0.08	0.44	L
Fe (TRC) (mg/L)	< 0.02	04/13/16-03/27/19	DUP	32	29	0.02	0.43	0.06	0.06	0.08	0.44	L
Pb (TRC) (mg/L)	< 0.0003	04/13/16-03/27/19	DUP	32	1	< 0.0003	0.0005					
Pb (TRC) (mg/L)	< 0.0003	04/13/16-03/27/19	O	32	1	< 0.0003	0.0005					
Mn (TRC) (mg/L)	< 0.005	04/13/16-03/27/19	DUP	32	6	< 0.005	0.009					
Mn (TRC) (mg/L)	< 0.005	04/13/16-03/27/19	O	32	6	< 0.005	0.009					
Hg (TRC) (ug/L)	< 0.005	04/13/16-03/27/19	DUP	32	1	< 0	0.018					
Hg (TRC) (ug/L)	< 0.005	04/13/16-03/27/19	O	32	1	< 0	0.018					
Mo (TRC) (mg/L)	< 0.002	04/13/16-03/27/19	DUP	32	0	< 0.002	< 0 .002					
Mo (TRC) (mg/L)	< 0.002	04/13/16-03/27/19	O	32	0	< 0.002	< 0 .002					
Ni (TRC) (mg/L)	< 0.001	04/13/16-03/27/19	O	32	1	< 0.001	< .002					
Ni (TRC) (mg/L)	< 0.001	04/13/16-03/27/19	DUP	32	1	< 0.001	< .002					
Se (TRC) (mg/L)	< 0.0002	04/13/16-03/27/19	O	32	1	< 0.0002	< .0004					
Se (TRC) (mg/L)	< 0.0002	04/13/16-03/27/19	DUP	32	1	< 0.0002	< .0004					
Ag (TRC) (mg/L)	< 0.0002	04/13/16-03/27/19	O	32	0	< 0.0002	: 0 .0002					
Ag (TRC) (mg/L)	< 0.0002	04/13/16-03/27/19	DUP	32	0	< 0.0002	: 0 .0002					
Sr (TRC) (mg/L)	0.124	04/13/16-03/27/19	O	32	32	0.075	0.136	0.118	0.124	0.016	0.38	
Sr (TRC) (mg/L)	0.126	04/13/16-03/27/19	DUP	32	32	0.075	0.136	0.118	0.124	0.016	0.505	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Tl (TRC) (mg/L)	< 0.0002	04/13/16-03/27/19	O	32	0	< 0.0002	: 0 .0002
Tl (TRC) (mg/L)	< 0.0002	04/13/16-03/27/19	DUP	32	0	< 0.0002	: 0 .0002
U (TRC) (mg/L)	0.0005	04/13/16-03/27/19	O	32	4	0.0003	< .008
U (TRC) (mg/L)	0.0006	04/13/16-03/27/19	DUP	32	4	0.0003	< .008
Zn (TRC) (mg/L)	< 0.002	04/13/16-03/27/19	O	32	5	< 0.002	0.006
Zn (TRC) (mg/L)	< 0.002	04/13/16-03/27/19	DUP	32	5	< 0.002	0.006

SAMPLE NO BBC-1901-108 LAB NO: H19010185-007 STATION:SW-17

01/10/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	11.38	01/17/18-03/27/19	O	13	13	9.32	11.38	10.41	10.56	0.66	1.46	H
pH Fld (s.u.)	8.05	01/17/18-03/27/19	O	13	13	7.47	8.41	8.03	8.06	0.27	0.08	
SC Fld (umhos/cm)	430	01/17/18-03/27/19	O	13	13	319.0	487.0	428.3	436	38.4	0.0	
Water Temp (Deg C)	0.43	01/17/18-03/27/19	O	13	13	0.02	13.3	1.51	2.9	4.73	0.23	
TDS (mg/L)	235	01/17/18-03/27/19	O	14	14	197.0	299.0	252.2	253.5	22.5	0.8	
TSS (mg/L)	< 4	01/17/18-03/27/19	O	14	5	< 4	14.0					
Tot Alk (mg/L)	210	01/17/18-03/27/19	O	14	14	150.0	210.0	200.5	210	16.8	0.6	H
Ca (mg/L)	56	01/17/18-03/27/19	O	14	14	44.0	63.0	54.4	56	4.7	0.3	
Chloride (mg/L)	5	01/17/18-03/27/19	O	14	14	3.0	11.0	4.3	4	2	0.3	
F (mg/L)	0.2	01/17/18-03/27/19	O	14	14	0.1	0.2	0.2	0.2	0	0.0	H
Tot Hard (mg/L)	246	01/17/18-03/27/19	O	14	14	167.0	262.0	232.0	240.5	21.8	0.6	
Mg (mg/L)	25	01/17/18-03/27/19	O	14	14	14.0	25.0	23.3	25	2.8	0.6	H
K (mg/L)	1	01/17/18-03/27/19	O	14	12	1.0	4.0	1.1	1	0.7	0.1	L
Na (mg/L)	3	01/17/18-03/27/19	O	14	14	2.0	5.0	2.4	2	0.8	0.8	
SO4 (mg/L)	35	01/17/18-03/27/19	O	14	14	12.0	44.0	28.8	33.5	7.4	0.8	
Nitrate + (mg/L)	0.18	01/17/18-03/27/19	O	14	13	< 0.01	0.19	0.08	0.11	0.06	1.67	
P (mg/L)	0.007	01/17/18-03/27/19	O	14	14	0.004	0.088	0.013	0.013	0.022	0.29	
Total Pers (mg/L)	0.25	04/12/18-03/27/19	O	11	11	0.12	0.7	0.24	0.24	0.15	0.07	
Al (DIS) (mg/L)	< 0.009	01/17/18-03/27/19	O	14	1	< 0.009	0.016					
Sb (TRC) (mg/L)	< 0.0005	01/17/18-03/27/19	O	14	0	< 0.0005	: 0 .0005					
As (TRC) (mg/L)	< 0.001	01/17/18-03/27/19	O	14	0	< 0.001	< 0 .001					
Ba (TRC) (mg/L)	0.157	01/17/18-03/27/19	O	14	14	0.108	0.168	0.149	0.152	0.013	0.625	
Be (TRC) (mg/L)	< 0.0008	01/17/18-03/27/19	O	14	0	< 0.0008	: 0 .0008					
Cd (TRC) (mg/L)	< 0	01/17/18-03/27/19	O	14	1	< 0	0.0002					
Cr (TRC) (mg/L)	< 0.01	01/17/18-03/27/19	O	14	0	< 0.01	< 0 .01					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Co (TRC) (mg/L)	< 0.01	01/17/18-03/27/19	O	14	0	< 0.01	< 0 .01					
Cu (TRC) (mg/L)	< 0.002	01/17/18-03/27/19	O	14	0	< 0.002	< 0 .002					
Fe (TRC) (mg/L)	0.07	01/17/18-03/27/19	O	14	14	0.07	0.36	0.15	0.15	0.08	0.94	L
Pb (TRC) (mg/L)	< 0.0003	01/17/18-03/27/19	O	14	1	< 0.0003	: 0 .0003					
Mn (TRC) (mg/L)	0.012	01/17/18-03/27/19	O	14	14	0.008	0.051	0.021	0.026	0.013	0.666	
Hg (TRC) (ug/L)	< 0.005	01/17/18-03/27/19	O	14	1	< 0	0.009					
Mo (TRC) (mg/L)	< 0.002	01/17/18-03/27/19	O	14	0	< 0.002	< 0 .002					
Ni (TRC) (mg/L)	< 0.001	01/17/18-03/27/19	O	14	0	< 0.001	< .002					
Se (TRC) (mg/L)	< 0.0002	01/17/18-03/27/19	O	14	0	< 0.0002	: 0 .0002					
Ag (TRC) (mg/L)	< 0.0002	01/17/18-03/27/19	O	14	0	< 0.0002	: 0 .0002					
Sr (TRC) (mg/L)	0.146	01/17/18-03/27/19	O	14	14	0.115	0.164	0.144	0.147	0.014	0.123	
Tl (TRC) (mg/L)	< 0.0002	01/17/18-03/27/19	O	14	4	< 0.0002	: 0 .0002					
U (TRC) (mg/L)	0.0007	01/17/18-03/27/19	O	14	3	0.0006	< .008					
Zn (TRC) (mg/L)	< 0.002	01/17/18-03/27/19	O	14	8	< 0.002	0.008	0.003	0.003	0.002	0.409	L

SAMPLE NO BBC-1901-110 LAB NO: H19010186-002 STATION:SP-11

01/10/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	8.36	04/18/18-02/22/19	O	10	10	6.09	8.36	7.2	7.12	0.69	1.68	H
pH Fld (s.u.)	7.98	04/18/18-02/22/19	O	10	10	6.28	7.98	7.42	7.65	0.56	0.99	H
SC Fld (umhos/cm)	180	04/18/18-02/22/19	O	10	10	171.0	195.0	184.6	185	8.4	0.6	
Water Temp (Deg C)	5.6	04/18/18-02/22/19	O	10	10	5.6	7.4	6.3	6.3	0.5	1.5	L
TDS (mg/L)	99	04/18/18-02/22/19	O	10	10	99.0	133.0	115.9	115.5	11.2	1.5	L
TSS (mg/L)	< 10	04/18/18-02/22/19	O	10	1	10.0	10.0					
Tot Alk (mg/L)	93	04/18/18-02/22/19	O	10	10	82.0	95.0	91.3	92.5	3.8	0.4	
Ca (mg/L)	23	04/18/18-02/22/19	O	10	10	21.0	24.0	22.8	23	0.9	0.2	
Chloride (mg/L)	< 1	04/18/18-02/22/19	O	10	0	< 1	< 1					
F (mg/L)	0.2	04/18/18-02/22/19	O	10	10	0.1	0.2	0.2	0.2	0	0.0	H
Tot Hard (mg/L)	93	04/18/18-02/22/19	O	10	10	81.0	95.0	90.9	92.5	4.2	0.5	
Mg (mg/L)	9	04/18/18-02/22/19	O	10	10	7.0	9.0	8.2	8	0.6	1.4	H
K (mg/L)	1	04/18/18-02/22/19	O	10	10	1.0	2.0	1.1	1	0.3	0.2	L
Na (mg/L)	4	04/18/18-02/22/19	O	10	10	3.0	4.0	3.6	4	0.5	0.9	H
SO4 (mg/L)	7	04/18/18-02/22/19	O	10	10	5.0	8.0	6.7	7	0.9	0.3	
Nitrate + (mg/L)	0.22	04/18/18-02/22/19	O	10	10	0.22	0.31	0.25	0.25	0.03	0.96	L
Al (DIS) (mg/L)	0.022	04/18/18-02/22/19	O	10	10	0.017	0.479	0.04	0.022	0.147	0.123	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Sb (DIS) (mg/L)	< 0.0005	04/18/18-02/22/19	O	10	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	0.005	04/18/18-02/22/19	O	10	10	0.005	0.008	0.006	0.005	0.001	0.697	L
Ba (DIS) (mg/L)	0.28	04/18/18-02/22/19	O	10	10	0.27	0.31	0.28	0.28	0.01	0.46	
Be (DIS) (mg/L)	< 0.0008	04/18/18-02/22/19	O	10	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	04/18/18-02/22/19	O	10	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	04/18/18-02/22/19	O	10	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	04/18/18-02/22/19	O	10	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	04/18/18-02/22/19	O	10	1	< 0.002	0.003					
Fe (DIS) (mg/L)	< 0.02	04/18/18-02/22/19	O	10	4	< 0.02	0.17					
Pb (DIS) (mg/L)	< 0.0003	04/18/18-02/22/19	O	10	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	04/18/18-02/22/19	O	10	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	04/18/18-02/22/19	O	10	0	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	04/18/18-02/22/19	O	10	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	04/18/18-02/22/19	O	10	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	04/18/18-02/22/19	O	10	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	04/18/18-02/22/19	O	10	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.102	04/18/18-02/22/19	O	10	10	0.086	0.104	0.1	0.101	0.005	0.468	
Tl (DIS) (mg/L)	< 0.0002	04/18/18-02/22/19	O	10	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0003	04/18/18-02/22/19	O	10	3	0.0003	< .008					
Zn (DIS) (mg/L)	< 0.002	04/18/18-02/22/19	O	10	3	0.002	0.004					

SAMPLE NO BBC-1901-111 LAB NO: H19010186-003

STATION:SP-12

01/10/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	7.78	04/18/18-03/27/19	O	10	10	3.32	8.8	5.92	6.29	2.01	0.93	
pH Fld (s.u.)	7.76	04/18/18-03/27/19	O	10	10	6.76	7.95	7.49	7.62	0.35	0.76	
SC Fld (umhos/cm)	421	04/18/18-03/27/19	O	10	10	421.0	473.0	441.9	437	16.5	1.3	L
Water Temp (Deg C)	5.4	04/18/18-03/27/19	O	10	10	4.3	7.3	6.0	6.2	0.9	0.7	
TDS (mg/L)	235	04/18/18-03/27/19	O	11	11	234.0	262.0	247.0	248	9.3	1.3	
TSS (mg/L)	187	04/18/18-03/27/19	O	11	6	< 10	187.0	23.5	22	53.2	3.1	*H
Tot Alk (mg/L)	210	04/18/18-03/27/19	O	11	11	160.0	220.0	200.2	210	16.4	0.6	
Ca (mg/L)	58	04/18/18-03/27/19	O	11	11	42.0	61.0	54.2	55	4.8	0.8	
Chloride (mg/L)	8	04/18/18-03/27/19	O	11	11	5.0	15.0	7.8	8	2.7	0.1	
F (mg/L)	0.2	04/18/18-03/27/19	O	11	11	0.1	0.2	0.2	0.2	0	0.0	H
Tot Hard (mg/L)	249	04/18/18-03/27/19	O	11	11	180.0	258.0	231.7	238	20.2	0.9	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Mg (mg/L)	26	04/18/18-03/27/19	O	11	11	18.0	26.0	23.4	24	2.2	1.2	H
K (mg/L)	1	04/18/18-03/27/19	O	11	11	1.0	13.0	1.4	1	3.6	0.1	L
Na (mg/L)	2	04/18/18-03/27/19	O	11	11	2.0	3.0	2.2	2	0.5	0.5	L
SO4 (mg/L)	26	04/18/18-03/27/19	O	11	11	21.0	28.0	24.1	24	2.5	0.8	
Nitrate + (mg/L)	0.31	04/18/18-03/27/19	O	11	11	0.15	0.69	0.37	0.33	0.16	0.35	
Al (DIS) (mg/L)	< 0.009	04/18/18-03/27/19	O	11	1	< 0.009	0.014					
Sb (DIS) (mg/L)	< 0.0005	04/18/18-03/27/19	O	11	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	04/18/18-03/27/19	O	11	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.187	04/18/18-03/27/19	O	11	11	0.128	0.192	0.174	0.176	0.018	0.728	
Be (DIS) (mg/L)	< 0.0008	04/18/18-03/27/19	O	11	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	04/18/18-03/27/19	O	11	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	04/18/18-03/27/19	O	11	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	04/18/18-03/27/19	O	11	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	04/18/18-03/27/19	O	11	1	0.002	0.002					
Fe (DIS) (mg/L)	< 0.02	04/18/18-03/27/19	O	11	4	< 0.02	0.06					
Pb (DIS) (mg/L)	< 0.0003	04/18/18-03/27/19	O	11	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	04/18/18-03/27/19	O	11	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	04/18/18-03/27/19	O	11	1	< 0	0.018					
Mo (DIS) (mg/L)	< 0.002	04/18/18-03/27/19	O	11	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	04/18/18-03/27/19	O	11	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	0.0002	04/18/18-03/27/19	O	11	9	< 0.0002	0.0003	0.0002	0.0002	0	0.0	L
Ag (DIS) (mg/L)	< 0.0002	04/18/18-03/27/19	O	11	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.115	04/18/18-03/27/19	O	11	11	0.081	0.115	0.106	0.107	0.01	0.899	H
Tl (DIS) (mg/L)	< 0.0002	04/18/18-03/27/19	O	11	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0006	04/18/18-03/27/19	O	11	5	0.0003	< .008					
Zn (DIS) (mg/L)	< 0.002	04/18/18-03/27/19	O	11	4	< 0.002	0.005					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

APPENDIX 2

DATABASE

Analyses Summary Report

Site Name: Black Butte Mi 5/8/2019 11:57:41 AM

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DS-1	DS-2	DS-3	DS-4
Water	Sample Date	1/10/2019	1/10/2019	1/10/2019	1/10/2019	1/10/2019	1/10/2019
	Sample Time	11:35:00 AM	3:30:00 PM	10:15:00 AM	3:45:00 PM	12:00:00 PM	12:12:00 PM
	Lab	Energy Labs	Energy Labs	Hydro	Hydro	Hydro	Hydro
	Lab Number	H19010185-006	H19010186-006	z	z	z	z
	Sample Number	BBC-1901-107	BBC-1901-114	BBC-1901-121	BBC-1901-119	BBC-1901-115	BBC-1901-116
	Remarks						

Field Parameters	Multiple Units					
Dissolved Oxygen						
Field pH						
Field Specific Conductivity						
Flow						
Flow			NF-DRY	NM-ICE	NF-DRY	NF-DRY
Water Temperature						
Physical Parameters	mg/L					
Total Dissolved Solids	<10	<10				
Total Suspended Solids	<4	<10				
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	<4	<4				
Calcium (DIS)	<1	<1				
Chloride	<1	<1				
Fluoride	<0.1	<0.1				
Hardness as CaCO3	<1	<1				
Magnesium (DIS)	<1	<1				
Potassium (DIS)	<1	<1				
Sodium (DIS)	<1	<1				
Sulfate	<1	<1				
Nutrients	mg/L					
Nitrate + Nitrite as N	<0.01	<0.01				
Phosphorus (TOT)	<0.003					
Total Persulfate Nitrogen	<0.04					
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009	<0.009				
Antimony (DIS)		<0.0005				
Antimony (TRC)	<0.0005					
Arsenic (DIS)		<0.001				
Arsenic (TRC)	<0.001					
Barium (DIS)		<0.003				
Barium (TRC)	<0.003					
Beryllium (DIS)		<0.0008				
Beryllium (TRC)	<0.0008					
Cadmium (DIS)		<0.00003				
Cadmium (TRC)	<0.00003					
Chromium (DIS)		<0.01				
Chromium (TRC)	<0.01					
Cobalt (DIS)		<0.01				
Cobalt (TRC)	<0.01					

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DS-1	DS-2	DS-3	DS-4
Water	Sample Date	1/10/2019	1/10/2019	1/10/2019	1/10/2019	1/10/2019	1/10/2019
	Sample Time	11:35:00 AM	3:30:00 PM	10:15:00 AM	3:45:00 PM	12:00:00 PM	12:12:00 PM
	Lab	Energy Labs	Energy Labs	Hydro	Hydro	Hydro	Hydro
	Lab Number	H19010185-006	H19010186-006	z	z	z	z
	Sample Number	BBC-1901-107	BBC-1901-114	BBC-1901-121	BBC-1901-119	BBC-1901-115	BBC-1901-116
	Remarks						

Metals - Trace Constituents	Multiple Units	
Copper (DIS)		<0.002
Copper (TRC)	<0.002	
Iron (DIS)		<0.02
Iron (TRC)	<0.02	
Lead (DIS)		<0.0003
Lead (TRC)	<0.0003	
Manganese (DIS)		<0.005
Manganese (TRC)	<0.005	
Mercury (DIS)		<0.005
Mercury (TRC)	<0.005	
Molybdenum (DIS)		<0.002
Molybdenum (TRC)	<0.002	
Nickel (DIS)		<0.001
Nickel (TRC)	<0.001	
Selenium (DIS)		<0.0002
Selenium (TRC)	<0.0002	
Silver (DIS)		<0.0002
Silver (TRC)	<0.0002	
Strontium (DIS)		<0.0002
Strontium (TRC)	<0.0002	
Thallium (DIS)		<0.0002
Thallium (TRC)	<0.0002	
Uranium (DIS)		<0.0002
Uranium (TRC)	<0.0002	
Zinc (DIS)		<0.002
Zinc (TRC)	<0.002	

Sample Type:	Station (Site)	SP-10	SP-11	SP-12	SP-3	SP-4	SP-6
Water	Sample Date	1/10/2019	1/10/2019	1/10/2019	1/10/2019	1/10/2019	1/10/2019
	Sample Time	4:00:00 PM	1:05:00 PM	1:25:00 PM	12:20:00 PM	12:45:00 PM	12:30:00 PM
	Lab	Hydro	Energy Labs	Energy Labs	Hydro	Energy Labs	Hydro
	Lab Number	z	H19010186-002	H19010186-003	z	H19010186-001	z
	Sample Number	BBC-1901-120	BBC-1901-110	BBC-1901-111	BBC-1901-117	BBC-1901-109	BBC-1901-118
	Remarks						

Field Parameters	Multiple Units					
Dissolved Oxygen		8.36	7.78		9.7	
Field pH		7.98	7.76		8.14	
Field Specific Conductivity		180	421		406	
Flow						
Flow	NF-DRY	NM	NM	NF-DRY	3.4	NM-ICE
Water Temperature		5.6	5.4		5.2	
Physical Parameters	mg/L					
Total Dissolved Solids		99	235		222	
Total Suspended Solids		<10	187		10	
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3		93	210		210	
Calcium (DIS)		23	58		53	
Chloride		<1	8		<1	
Fluoride		0.2	0.2		0.2	
Hardness as CaCO3		93	249		248	
Magnesium (DIS)		9	26		28	
Potassium (DIS)		1	1		2	
Sodium (DIS)		4	2		2	
Sulfate		7	26		38	
Nutrients	mg/L					
Nitrate + Nitrite as N		0.22	0.31		0.25	
Phosphorus (TOT)						
Total Persulfate Nitrogen						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)		0.022	<0.009		0.013	
Antimony (DIS)		<0.0005	<0.0005		<0.0005	
Antimony (TRC)						
Arsenic (DIS)		0.005	<0.001		<0.001	
Arsenic (TRC)						
Barium (DIS)		0.28	0.187		0.114	
Barium (TRC)						
Beryllium (DIS)		<0.0008	<0.0008		<0.0008	
Beryllium (TRC)						
Cadmium (DIS)		<0.00003	<0.00003		<0.00003	
Cadmium (TRC)						
Chromium (DIS)		<0.01	<0.01		<0.01	
Chromium (TRC)						
Cobalt (DIS)		<0.01	<0.01		<0.01	
Cobalt (TRC)						

Sample Type:	Station (Site)	SP-10	SP-11	SP-12	SP-3	SP-4	SP-6
Water	Sample Date	1/10/2019	1/10/2019	1/10/2019	1/10/2019	1/10/2019	1/10/2019
	Sample Time	4:00:00 PM	1:05:00 PM	1:25:00 PM	12:20:00 PM	12:45:00 PM	12:30:00 PM
	Lab	Hydro	Energy Labs	Energy Labs	Hydro	Energy Labs	Hydro
	Lab Number	z	H19010186-002	H19010186-003	z	H19010186-001	z
	Sample Number	BBC-1901-120	BBC-1901-110	BBC-1901-111	BBC-1901-117	BBC-1901-109	BBC-1901-118
	Remarks						

Metals - Trace Constituents	Multiple Units		
Copper (DIS)	<0.002	<0.002	<0.002
Copper (TRC)			
Iron (DIS)	<0.02	<0.02	0.02
Iron (TRC)			
Lead (DIS)	<0.0003	<0.0003	<0.0003
Lead (TRC)			
Manganese (DIS)	<0.005	<0.005	<0.005
Manganese (TRC)			
Mercury (DIS)	<0.005	<0.005	<0.005
Mercury (TRC)			
Molybdenum (DIS)	<0.002	<0.002	<0.002
Molybdenum (TRC)			
Nickel (DIS)	<0.001	<0.001	<0.001
Nickel (TRC)			
Selenium (DIS)	<0.0002	0.0002	0.0004
Selenium (TRC)			
Silver (DIS)	<0.0002	<0.0002	<0.0002
Silver (TRC)			
Strontium (DIS)	0.102	0.115	0.0742
Strontium (TRC)			
Thallium (DIS)	<0.0002	<0.0002	0.0004
Thallium (TRC)			
Uranium (DIS)	0.0003	0.0006	0.0005
Uranium (TRC)			
Zinc (DIS)	<0.002	<0.002	<0.002
Zinc (TRC)			

Sample Type:	Station (Site)	SP-7	SP-7	SW-1	SW-14	SW-14	SW-17
Water	Sample Date	1/10/2019	1/10/2019	1/10/2019	1/10/2019	1/10/2019	1/10/2019
	Sample Time	2:20:00 PM	2:45:00 PM	10:00:00 AM	11:00:00 AM	11:15:00 AM	11:45:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19010186-004	H19010186-005	H19010185-001	H19010185-004	H19010185-005	H19010185-007
	Sample Number	BBC-1901-112	BBC-1901-113	BBC-1901-100	BBC-1901-103	BBC-1901-104	BBC-1901-108
	Remarks		DUPLICATE			DUPLICATE	

Field Parameters	Multiple Units					
Dissolved Oxygen	5.83		14.32	11.28		11.38
Field pH	7.54		7.88	7.86		8.05
Field Specific Conductivity	311		319	394		430
Flow			NM-ICE	NM		NM
Flow	15.3					
Water Temperature	5.07		-0.84	-0.59		0.43
Physical Parameters	mg/L					
Total Dissolved Solids	174	168	176 D	219 D	229 D	235 D
Total Suspended Solids	<10	<10	<4	<4	<4	<4
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	170	170	180	220	220	210
Calcium (DIS)	43	43	50	61	59	56
Chloride	2	2	2	2	2	5
Fluoride	0.3	0.3	0.1	0.2	0.2	0.2
Hardness as CaCO3	171	170	180	239	230	246
Magnesium (DIS)	15	15	13	21	20	25
Potassium (DIS)	3	3	1	1	1	1
Sodium (DIS)	5	5	2	3	3	3
Sulfate	11	11	7	9	9	35
Nutrients	mg/L					
Nitrate + Nitrite as N	0.3	0.3	0.12	0.16	0.16	0.18
Phosphorus (TOT)			0.009	0.005	0.004	0.007
Total Persulfate Nitrogen			0.19	0.24	0.24	0.25
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009
Antimony (DIS)	<0.0005	<0.0005				
Antimony (TRC)			<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (DIS)	0.004	0.004				
Arsenic (TRC)			<0.001	<0.001	<0.001	<0.001
Barium (DIS)	0.113	0.114				
Barium (TRC)			0.105	0.12	0.122	0.157
Beryllium (DIS)	<0.0008	<0.0008				
Beryllium (TRC)			<0.0008	<0.0008	<0.0008	<0.0008
Cadmium (DIS)	<0.00003	<0.00003				
Cadmium (TRC)			<0.00003	<0.00003	<0.00003	<0.00003
Chromium (DIS)	<0.01	<0.01				
Chromium (TRC)			<0.01	<0.01	<0.01	<0.01
Cobalt (DIS)	<0.01	<0.01				
Cobalt (TRC)			<0.01	<0.01	<0.01	<0.01

Sample Type:	Station (Site)	SP-7	SP-7	SW-1	SW-14	SW-14	SW-17
Water	Sample Date	1/10/2019	1/10/2019	1/10/2019	1/10/2019	1/10/2019	1/10/2019
	Sample Time	2:20:00 PM	2:45:00 PM	10:00:00 AM	11:00:00 AM	11:15:00 AM	11:45:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19010186-004	H19010186-005	H19010185-001	H19010185-004	H19010185-005	H19010185-007
	Sample Number	BBC-1901-112	BBC-1901-113	BBC-1901-100	BBC-1901-103	BBC-1901-104	BBC-1901-108
	Remarks		DUPLICATE			DUPLICATE	
Metals - Trace Constituents	Multiple Units						
	Copper (DIS)	<0.002	<0.002				
	Copper (TRC)			<0.002	<0.002	<0.002	<0.002
	Iron (DIS)	<0.02	<0.02				
	Iron (TRC)			0.17	<0.02	<0.02	0.07
	Lead (DIS)	<0.0003	<0.0003				
	Lead (TRC)			<0.0003	<0.0003	<0.0003	<0.0003
	Manganese (DIS)	<0.005	<0.005				
	Manganese (TRC)			0.015	<0.005	<0.005	0.012
	Mercury (DIS)	<0.005	<0.005				
	Mercury (TRC)			<0.005	<0.005	<0.005	<0.005
	Molybdenum (DIS)	<0.002	<0.002				
	Molybdenum (TRC)			<0.002	<0.002	<0.002	<0.002
	Nickel (DIS)	<0.001	<0.001				
	Nickel (TRC)			<0.001	<0.001	<0.001	<0.001
	Selenium (DIS)	0.0004	0.0003				
	Selenium (TRC)			<0.0002	<0.0002	<0.0002	<0.0002
	Silver (DIS)	<0.0002	<0.0002				
	Silver (TRC)			<0.0002	<0.0002	<0.0002	<0.0002
	Strontium (DIS)	0.17	0.172				
	Strontium (TRC)			0.127 D	0.124 D	0.126 D	0.146 D
	Thallium (DIS)	0.001	0.001				
	Thallium (TRC)			<0.0002	<0.0002	<0.0002	<0.0002
	Uranium (DIS)	0.0009	0.0009				
	Uranium (TRC)			0.0004	0.0005	0.0006	0.0007
	Zinc (DIS)	<0.002	<0.002				
	Zinc (TRC)			<0.002	<0.002	<0.002	<0.002

Sample Type:	Station (Site)	SW-18	SW-2	SW-3	SW-7	USGS-SC1
Water	Sample Date	1/10/2019	1/10/2019	1/10/2019	1/10/2019	1/10/2019
	Sample Time	11:25:00 AM	10:20:00 AM	11:20:00 AM	4:30:00 PM	10:40:00 AM
	Lab	Hydro	Energy Labs	Hydro	Hydro	Energy Labs
	Lab Number	z	H19010185-002	z	z	H19010185-003
	Sample Number	BBC-1901-106	BBC-1901-101	BBC-1901-105	BBC-1901-122	BBC-1901-102
	Remarks					

Field Parameters	Multiple Units				
Dissolved Oxygen		12.02			11.74
Field pH		7.74			7.85
Field Specific Conductivity		311			341
Flow	NM		NM		NM
Flow				NF-DRY	
Water Temperature		-0.92			-0.83
Physical Parameters	mg/L				
Total Dissolved Solids		170 D			188 D
Total Suspended Solids		<4			<4
Major Constituents - Commons Ions	mg/L				
Alkalinity as CaCO3		170			190
Calcium (DIS)		49			55
Chloride		1			1
Fluoride		<0.1			<0.1
Hardness as CaCO3		175			196
Magnesium (DIS)		13			14
Potassium (DIS)		1			1
Sodium (DIS)		2			2
Sulfate		7			8
Nutrients	mg/L				
Nitrate + Nitrite as N		0.1			0.11
Phosphorus (TOT)		0.008			0.005
Total Persulfate Nitrogen		0.16			0.15
Metals - Trace Constituents	Multiple Units				
Aluminum (DIS)		0.02			<0.009
Antimony (DIS)					
Antimony (TRC)		<0.0005			<0.0005
Arsenic (DIS)					
Arsenic (TRC)		<0.001			<0.001
Barium (DIS)					
Barium (TRC)		0.091			0.068
Beryllium (DIS)					
Beryllium (TRC)		<0.0008			<0.0008
Cadmium (DIS)					
Cadmium (TRC)		<0.00003			<0.00003
Chromium (DIS)					
Chromium (TRC)		<0.01			<0.01
Cobalt (DIS)					
Cobalt (TRC)		<0.01			<0.01

Sample Type:	Station (Site)	SW-18	SW-2	SW-3	SW-7	USGS-SC1
Water	Sample Date	1/10/2019	1/10/2019	1/10/2019	1/10/2019	1/10/2019
	Sample Time	11:25:00 AM	10:20:00 AM	11:20:00 AM	4:30:00 PM	10:40:00 AM
	Lab	Hydro	Energy Labs	Hydro	Hydro	Energy Labs
	Lab Number	z	H19010185-002	z	z	H19010185-003
	Sample Number	BBC-1901-106	BBC-1901-101	BBC-1901-105	BBC-1901-122	BBC-1901-102
	Remarks					

Metals - Trace Constituents	Multiple Units				
Copper (DIS)					
Copper (TRC)		<0.002			<0.002
Iron (DIS)					
Iron (TRC)		0.17			0.11
Lead (DIS)					
Lead (TRC)		<0.0003			<0.0003
Manganese (DIS)					
Manganese (TRC)		0.009			0.007
Mercury (DIS)					
Mercury (TRC)		<0.005			<0.005
Molybdenum (DIS)					
Molybdenum (TRC)		<0.002			<0.002
Nickel (DIS)					
Nickel (TRC)		<0.001			<0.001
Selenium (DIS)					
Selenium (TRC)		<0.0002			<0.0002
Silver (DIS)					
Silver (TRC)		<0.0002			<0.0002
Strontium (DIS)					
Strontium (TRC)		0.124 D			0.148 D
Thallium (DIS)					
Thallium (TRC)		<0.0002			<0.0002
Uranium (DIS)					
Uranium (TRC)		0.0003			0.0004
Zinc (DIS)					
Zinc (TRC)		<0.002			<0.002

QUALITY CONTROL / QUALITY ASSURANCE
DATA VERIFICATION REPORT

BLACK BUTTE COPPER
WATER RESOURCE MONITORING

FEBRUARY 2019

Prepared by
Hydrometrics, Inc.
3020 Bozeman Avenue
Helena, MT 59601

MAY 2019

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GLOSSARY OF TERMS

CCB ..... Continuing Calibration Blank

CCV ..... Continuing Calibration Verification

CLP ..... Contract Laboratory Program

CRDL..... Contract Required Detection Limit

DIé é é é é Deionized Water

FAA ..... Flame Atomic Absorption

GFAA..... Graphite Furnace Atomic Absorption

HGAA ..... Hydride Generation Atomic Absorption

ICB..... Initial Calibration Blank

ICP ..... Inductively Coupled Plasma

ICV ..... Initial Calibration Verification

IDL..... Instrument Detection Limit

LCS ..... Laboratory Control Sample

MSA..... Method of Standard Additions

PB ..... Preparation Blank

PRDL ..... Project Required Detection Limit

QAPP ..... Quality Assurance Project Plan

QC..... Quality Control

RPD..... Relative Percent Difference

RSD..... Relative Standard Deviation

SOW..... Statement of Work

TDS..... Total Dissolved Solids

DATA VALIDATION REPORT

1. INTRODUCTION

This validation applies to 23 samples collected for the Black Butte Tintina surface water and groundwater monitoring program. All sampling occurred in February 2019. All samples were submitted to Energy Laboratories in Helena, Montana and were assigned Laboratory IDs: H19020363 and H19020364. The total number of samples included: 8 groundwater and surface water samples including 2 field duplicates, 11 site observations and 2 field deionized (DI) blanks.

- Validation procedures used are generally consistent with:
  (Check all that apply)
  _X_ EPA CLP National Functional Guidelines for Inorganics Data Review
  _X_ EPA CLP National Functional Guidelines for Organic Data Review
  _X_ Montana Department of Environmental Quality, Data Validation Guidelines for Evaluating Analytical Data, Hydrometrics, September 2010

2. DELIVERABLES

- All laboratory document deliverables were present as specified in the CLP-Statement of Work and/or the project contract
  _X_ Yes
  ___ No

- All documentation of field procedures was provided as required
  _X_ Yes ï see following notes
  ___ No
  NOTES: It was noted that the pH meter malfunctioned during the sampling event. All Field pH values were noted as being anomalous (A).

3. FIELD QUALITY CONTROL SAMPLES

- Field blanks
  Please note that the highest blank value associated with any particular analyte is the blank value used for the flagging process.
  DI, trip, rinsate, or any other field blanks have been carried out at the proper frequency
  _X_ Yes
  ___ No

  Reported results on the field blanks are less than the contract required detection limits (CRDL) or the project required detection limits (PRDL) if project detection limits have been specified
  ___ Yes
  _X_ No ï see following table

Date	Parameter	Result (mg/L)	Reporting Limit (mg/L)	# Flags
2/22/19	Iron (DIS)	0.1	<0.02	0
	Selenium (DIS)	0.0003	<0.0002	5

Flagging: U

- Field duplicates
  Field duplicates have been collected at the proper frequency
  _X_ Yes
  ___ No

Field duplicate relative percent differences (RPDs) were within the required control limits (25 percent or less for water matrix and 50 percent or less for soil matrix)
_X_ Yes
___No

4. LABORATORY PROCEDURES

- Laboratory Case Narrative Notes any non conformance issues with the analytical data
  ____Yes
  ____No
  _X_ NA

- Samples were received by the laboratory at the proper temperature
  _X_ Yes
  ___No

- Holding times met
  _X_ Yes
  ___No

- Consistency with project requirements
  _X_ Yes
  ____No

- Sample Conditions met at Check-in
  _X_ Yes
  ___No

- Reporting units appropriate for the associated sample matrix and methods of analysis
  _X_ Yes
  ___No

- Project specified methods were used
  _X_ Yesï see following list of methods used
  ___No
  NOTES: The following methods were used during analyses: A2540D, A2540C, A2320B, E300.0, A4500-F C, A2340B, E353.2, A4500-N C, E365.1, E200.8, and E200.7.

- Detection Limits met project required detection limits (PRDL)
  _X_ Yesï see following notes
  ___No
  NOTES: It should be noted that total dissolved solids and strontium had a reporting limit increases due to sample matrix interference (D). TDS had a limit of 10 mg/l used not the requested 4 mg/l. Strontium had the 0.0003 mg/l reporting limit was used in place of the requested 0.0002 mg/l. In addition, a reporting limit of 0.01 mg/l was used for nitrate + nitrite as n as replacement of the 0.003 mg/l requested.

5. INITIAL OR CONTINUING CALIBRATION VERIFICATION RESULTS

- Initial or Continuing Calibration Verification samples were within acceptable limits
  _X_ Yes
  ___No

6. LABORATORY BLANKS

- **PREPARATION/METHOD BLANKS**

  Preparation/Method blanks were prepared and analyzed at the required frequency
  _X_ Yes
  ___ No

  All analytes in the preparation blank were less than the CRDL (or PRDL if a project detection limit has been specified)
  _X_ Yes
  ___ No

7. MATRIX SPIKE /MATRIX SPIKE DUPLICATES (MS/MSD)

- Matrix spike samples were analyzed at the proper frequency
  _X_ Yes
  ____ No

- Matrix spike recoveries were within control limits
  ____ Yes
  _X_ No ï see following table

QC Sample ID	Parameter	% REC	Lab Flag	Lab Advisory Limits (% REC)
H19020363-006DMS	Nitrate + Nitrite as N	85	S	90-110
H19020370-001AMS	Sulfate	88	S	90-110

S ï Spike recovery outside of recovery limits

- Matrix spike RPDôs were within control limits
  _X_ Yes
  ____ No

- Matrix spike duplicate samples were analyzed at the proper frequency
  _X_ Yes
  ____ No

- Matrix spike duplicate RPDôs were within control limits
  _X_ Yes
  ____ No

- Matrix spike duplicate recoveries were within the laboratory specified control limits.
  ____ Yes
  _X_ No ï see following table

QC Sample ID	Parameter	% REC	Lab Flag	Lab Advisory Limits (% REC)
H19020363-006DMSD	Nitrate + Nitrite as N	85	S	90-110
H19020370-001AMSD	Sulfate	89	S	90-110

S ï Spike recovery outside of recovery limits

8. LABORATORY CONTROL SAMPLES

- LCS Samples

Laboratory Control Samples used the correct matrix and concentrations
___Yes
___No
_X_NA

Laboratory Control Samples were prepared and analyzed at the required frequency
___Yes
___No
_X_NA

All analytes in the laboratory control samples were less than the control limits specified
_X_Yes
____No

9. DATA QUALITY OBJECTIVES

- Project data quality objectives (DQOs) met

_X_Yes
___No

Accuracy

Accuracy for this project is the degree of agreement between an analytical measurement and a reference accepted as a true value. The accuracy of a measurement system can be affected by errors introduced by field contamination, sample preservation, sample handling, sample preparation and analytical techniques. Analysis of MS/MSD samples, laboratory control spikes (LCS) or blank spikes, surrogate standards and method blanks are typically used to calculate the percent recovery for evaluating accuracy. Accuracy for this sampling event was 99 percent.

Precision

Precision for this project is the degree of mutual agreement between individual measurements of the same property under similar conditions. Combined field and laboratory precision is evaluated by collecting and analyzing field duplicate and then calculating the variance between the samples, typically as a relative percent difference (RPD). Laboratory analytical precision is evaluated by analyzing matrix spike/matrix spike duplicate samples and using the results to calculate an RPD. The combined precision was 99 percent for this sampling event for both laboratory and field.

Representativeness

Representativeness for this project is the degree to which sample data accurately and precisely represent the characteristics of a population, and variations in a parameter at a sampling point or an environmental condition that they are intended to represent. Typically representative data will be obtained through careful selection of sampling locations and analytical parameters; proper collection and handling of samples and through use and consistent application of established field and laboratory procedures. Evaluation of field and laboratory blank samples for presence of contaminants can be useful in evaluating representativeness of sample results. Both laboratory and field representativeness for this sampling event was 100 percent.

Completeness

The target completeness for this project is the percent of the measurements valid (not rejected). Valid data are obtained when samples are collected and analyzed in accordance with quality

control procedures outlined in the SAP, and when none of the QC criteria that affect data usability are exceeded. Once data validation is complete the number of useable sample results is divided by the total number of sample results planned for the investigation to determine the percent completeness. Completeness for this sampling event was 100 percent.

Comparability

Comparability is the expression of the confidence with which one data set can be compared with another. Comparability of data is achieved by consistently following standard field and laboratory procedures and by using standard measurement units in reporting analytical data. This criterion was met.

REFERENCES

Montana Department of Environmental Quality, Data Validation Guidelines for Evaluating Analytical Data (Updated August 5, 2010)

EPA, 2017a. National Functional Guidelines for Organic Superfund Methods Data Review. EPA-540-R-2017-002. Office of Superfund Remediation and Technology Innovation. January 2017.

EPA, 2017b. National Functional Guidelines for Inorganic Superfund Methods Data Review. EPA-540-R-2017-001. Office of Superfund Remediation and Technology Innovation. January 2017.

Hem, J.D., 1992. Study and Interpretation of the Chemical Characteristics of Natural Water, 3rd edition. US Geological Survey Water Supply Paper 2254.

APPENDIX 1

TABLES

TABLE 1.

DATA VALIDATION CODES AND DEFINITIONS

CODE	DEFINITION
J	-The associated numerical value is an estimated quantity because quality control criteria were not met.
U	- Blank contamination. Indicates possible high bias and / or false positive. The associated value is an estimate.
R	- Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis is necessary for verification.
A	- Anomalous data. No apparent explanation for discrepancy in data. (Not an EPA code.)

Black Butte Mine Data Comparison Summary

Report Date: May 8, 2019

SAMPLE NO BBC-1902-118 LAB NO: z | STATION:DS-1

02/22/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Gallons Per Min)	0	03/25/15-03/26/19	OBS	27	27	0.1	62.3	4.9	5.9	11.9	0.4	L

SAMPLE NO BBC-1902-114 LAB NO: z | STATION:DS-3

02/22/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Gallons Per Min)	0	08/06/14-09/18/18	OBS	24	24	0.5	159.0	4.0	5.4	22.2	0.2	L

SAMPLE NO BBC-1902-115 LAB NO: z | STATION:DS-4

02/22/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Gallons Per Min)	0	10/13/11-08/29/18	OBS	10	8	< 1	7.5	2.6	2.4	3.5	0.7	L

SAMPLE NO BBC-1902-122 LAB NO: z | STATION:SP-3

02/22/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Gallons Per Min)	0	07/20/11-11/16/18	OBS	25	24	< 0	5.4	0.6	0.6	1.6	0.4	L

SAMPLE NO BBC-1902-111 LAB NO: H19020364-003 | STATION:SP-4

02/22/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	9.92	07/21/11-03/26/19	O	50	50	6.7	13.95	9.82	9.7	1.37	0.07	
pH Fld (s.u.)	7.86	07/21/11-03/26/19	O	49	49	6.95	8.63	7.7	7.71	0.29	0.56	
SC Fld (umhos/cm)	428	07/21/11-03/26/19	O	50	50	162.0	481.0	420.4	434	46.9	0.2	
Water Temp (Deg C)	3.6	07/21/11-03/26/19	O	49	49	0.1	12.2	5.6	6.5	2.2	0.9	
phTemp (Deg C)	16.2	02/22/19	DUP	1	1	16.0	16.0	16.0	16	0.1	2.0	H
phTemp (Deg C)	16	02/22/19	O	1	1	16.0	16.0	16.0	16	0.1	0.0	H
pH (s.u.)	8	02/22/19	DUP	1	1	7.8	7.8	7.8	7.8	0.1	2.0	H
pH (s.u.)	7.8	02/22/19	O	1	1	7.8	7.8	7.8	7.8	0.1	0.0	H
TDS (mg/L)	234	07/21/11-03/26/19	O	50	50	202.0	272.0	247.2	251	14	0.9	
TDS (mg/L)	237	07/21/11-03/26/19	DUP	50	50	202.0	272.0	247.2	251	14	0.7	
TSS (mg/L)	11	08/28/13-03/26/19	O	47	29	5.0	890.0	21.3	12	125.7	0.1	
TSS (mg/L)	20	08/28/13-03/26/19	DUP	47	29	5.0	890.0	21.3	12	125.7	0.0	
Tot Alk (mg/L)	200	07/21/11-03/26/19	O	50	50	190.0	210.0	201.4	200	4.5	0.3	
Tot Alk (mg/L)	200	07/21/11-03/26/19	DUP	50	50	190.0	210.0	201.4	200	4.5	0.3	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Ca (mg/L)	53	07/21/11-03/26/19	O	50	50	42.0	56.0	50.8	51	2.5	0.9	
Ca (mg/L)	53	07/21/11-03/26/19	DUP	50	50	42.0	56.0	50.8	51	2.5	0.9	
Chloride (mg/L)	< 1	07/21/11-03/26/19	O	50	14	1.0	1.0					
Chloride (mg/L)	< 1	07/21/11-03/26/19	DUP	50	14	1.0	1.0					
F (mg/L)	0.2	07/21/11-03/26/19	O	50	50	0.2	0.3	0.2	0.2	0	0.0	L
F (mg/L)	0.2	07/21/11-03/26/19	DUP	50	50	0.2	0.3	0.2	0.2	0	0.0	L
Tot Hard (mg/L)	246	07/21/11-03/26/19	O	50	50	208.0	255.0	236.5	238	11	0.9	
Tot Hard (mg/L)	245	07/21/11-03/26/19	DUP	50	50	208.0	255.0	236.5	238	11	0.8	
Mg (mg/L)	28	07/21/11-03/26/19	O	50	50	24.0	29.0	26.6	27	1.2	1.2	
Mg (mg/L)	27	07/21/11-03/26/19	DUP	50	50	24.0	29.0	26.6	27	1.2	0.3	
K (mg/L)	2	07/21/11-03/26/19	DUP	50	50	1.0	2.0	1.9	2	0.3	0.4	H
K (mg/L)	2	07/21/11-03/26/19	O	50	50	1.0	2.0	1.9	2	0.3	0.4	H
Na (mg/L)	2	07/21/11-03/26/19	DUP	50	50	2.0	2.0	2.0	2	0	0.0	H
Na (mg/L)	2	07/21/11-03/26/19	O	50	50	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	38	07/21/11-03/26/19	DUP	50	50	10.0	45.0	35.4	38	6.6	0.4	
SO4 (mg/L)	38	07/21/11-03/26/19	O	50	50	10.0	45.0	35.4	38	6.6	0.4	
Nitrate + (mg/L)	0.24	07/21/11-03/26/19	DUP	50	50	0.18	0.35	0.25	0.25	0.03	0.35	
Nitrate + (mg/L)	0.25	07/21/11-03/26/19	O	50	50	0.18	0.35	0.25	0.25	0.03	0.01	
Al (DIS) (mg/L)	< 0.009	07/21/11-03/26/19	O	50	4	< 0.009	0.031					
Al (DIS) (mg/L)	< 0.009	07/21/11-03/26/19	DUP	50	4	< 0.009	0.031					
Sb (DIS) (mg/L)	< 0.0005	07/21/11-03/26/19	O	49	0	< 0.0005	< .003					
Sb (DIS) (mg/L)	< 0.0005	07/21/11-03/26/19	DUP	49	0	< 0.0005	< .003					
As (DIS) (mg/L)	< 0.001	07/21/11-03/26/19	DUP	49	0	< 0.001	< .003					
As (DIS) (mg/L)	< 0.001	07/21/11-03/26/19	O	49	0	< 0.001	< .003					
Ba (DIS) (mg/L)	0.114	07/21/11-03/26/19	O	49	49	0.101	0.121	0.112	0.112	0.005	0.459	
Ba (DIS) (mg/L)	0.114	07/21/11-03/26/19	DUP	49	49	0.101	0.121	0.112	0.112	0.005	0.459	
Be (DIS) (mg/L)	< 0.0008	07/21/11-03/26/19	O	49	0	< 0.0008	< .001					
Be (DIS) (mg/L)	< 0.0008	07/21/11-03/26/19	DUP	49	0	< 0.0008	< .001					
Cd (DIS) (mg/L)	< 0	07/21/11-03/26/19	DUP	49	0	< 0	< .00008					
Cd (DIS) (mg/L)	< 0	07/21/11-03/26/19	O	49	0	< 0	< .00008					
Cr (DIS) (mg/L)	< 0.01	07/21/11-03/26/19	DUP	49	0	< 0	< .01					
Cr (DIS) (mg/L)	< 0.01	07/21/11-03/26/19	O	49	0	< 0	< .01					
Co (DIS) (mg/L)	< 0.01	07/21/11-03/26/19	DUP	49	0	< 0.01	< .01					
Co (DIS) (mg/L)	< 0.01	07/21/11-03/26/19	O	49	0	< 0.01	< .01					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Cu (DIS) (mg/L)	< 0.002	07/21/11-03/26/19	O	49	1	< 0.001	0.017				
Cu (DIS) (mg/L)	< 0.002	07/21/11-03/26/19	DUP	49	1	< 0.001	0.017				
Fe (DIS) (mg/L)	< 0.02	07/21/11-03/26/19	DUP	49	11	< 0.02	0.14				
Fe (DIS) (mg/L)	< 0.02	07/21/11-03/26/19	O	49	11	< 0.02	0.14				
Pb (DIS) (mg/L)	< 0.0003	07/21/11-03/26/19	DUP	49	0	< 0.0003	< .0005				
Pb (DIS) (mg/L)	< 0.0003	07/21/11-03/26/19	O	49	0	< 0.0003	< .0005				
Mn (DIS) (mg/L)	< 0.005	07/21/11-03/26/19	O	49	23	0.004	0.038				
Mn (DIS) (mg/L)	< 0.005	07/21/11-03/26/19	DUP	49	23	0.004	0.038				
Hg (DIS) (ug/L)	< 0.005	07/21/11-03/26/19	DUP	48	1	< 0	< .005				
Hg (DIS) (ug/L)	< 0.005	07/21/11-03/26/19	O	48	1	< 0	< .005				
Mo (DIS) (mg/L)	< 0.002	07/21/11-03/26/19	O	49	0	< 0.001	< .005				
Mo (DIS) (mg/L)	< 0.002	07/21/11-03/26/19	DUP	49	0	< 0.001	< .005				
Ni (DIS) (mg/L)	< 0.001	07/21/11-03/26/19	O	49	0	< 0.001	< .01				
Ni (DIS) (mg/L)	< 0.001	07/21/11-03/26/19	DUP	49	0	< 0.001	< .01				
Se (DIS) (mg/L)	0.0004	07/21/11-03/26/19	O	49	45	< 0.0002	< .001	0.0004	0.0004	0.0001	0.1629
Se (DIS) (mg/L)	0.0004	07/21/11-03/26/19	DUP	49	45	< 0.0002	< .001	0.0004	0.0004	0.0001	0.1629
Ag (DIS) (mg/L)	< 0.0002	07/21/11-03/26/19	DUP	49	0	< 0.0002	< .0005				
Ag (DIS) (mg/L)	< 0.0002	07/21/11-03/26/19	O	49	0	< 0.0002	< .0005				
Sr (DIS) (mg/L)	0.0749	07/21/11-03/26/19	DUP	49	46	0.0672	< .1	0.074	0.073	0.0069	0.1322
Sr (DIS) (mg/L)	0.0753	07/21/11-03/26/19	O	49	46	0.0672	< .1	0.074	0.073	0.0069	0.1902
Tl (DIS) (mg/L)	0.0003	07/21/11-03/26/19	O	49	49	0.0002	0.0004	0.0003	0.0003	0.0001	0.0327
Tl (DIS) (mg/L)	0.0003	07/21/11-03/26/19	DUP	49	49	0.0002	0.0004	0.0003	0.0003	0.0001	0.0327
U (DIS) (mg/L)	0.0005	07/21/11-03/26/19	O	49	9	0.0004	< .008				
U (DIS) (mg/L)	0.0005	07/21/11-03/26/19	DUP	49	9	0.0004	< .008				
Zn (DIS) (mg/L)	< 0.002	07/21/11-03/26/19	O	49	14	< 0.002	< .01				
Zn (DIS) (mg/L)	< 0.002	07/21/11-03/26/19	DUP	49	14	< 0.002	< .01				

SAMPLE NO BBC-1902-110 LAB NO: H19020364-002 STATION:SP-7

02/22/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	4.59	03/26/15-03/27/19	O	47	47	2.3	10.98	3.72	3.54	1.62	0.54	
pH Fld (s.u.)	7.37	03/26/15-03/27/19	O	46	46	6.17	8.18	7.38	7.38	0.33	0.03	
SC Fld (umhos/cm)	330	03/26/15-03/27/19	O	47	47	196.0	354.0	320.7	330	28.8	0.3	
Water Temp (Deg C)	6.14	03/26/15-03/27/19	O	46	46	5.07	7.4	6.5	6.62	0.63	0.56	
phTemp (Deg C)	16.1	02/22/19	O	1	1	16.1	16.1	16.1	16.1	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

pH (s.u.)	7.4	02/22/19	O	1	1	7.4	7.4	7.4	7.4	0	0.0	H
TDS (mg/L)	176	03/26/15-03/27/19	O	47	47	173.0	200.0	187.1	187	6.8	1.6	
TSS (mg/L)	< 10	03/26/15-03/27/19	O	47	7	< 4	146.0					
Tot Alk (mg/L)	170	03/26/15-03/27/19	O	47	47	160.0	170.0	166.3	170	4.7	0.8	H
Ca (mg/L)	42	03/26/15-03/27/19	O	47	47	40.0	46.0	42.9	43	1.4	0.7	
Chloride (mg/L)	2	03/26/15-03/27/19	O	47	47	1.0	2.0	1.7	2	0.3	0.8	H
F (mg/L)	0.3	03/26/15-03/27/19	O	47	47	0.3	0.4	0.3	0.3	0	0.0	L
Tot Hard (mg/L)	166	03/26/15-03/27/19	O	47	47	153.0	178.0	168.1	169	5.5	0.4	
Mg (mg/L)	15	03/26/15-03/27/19	O	47	47	13.0	16.0	14.8	15	0.6	0.4	
K (mg/L)	3	03/26/15-03/27/19	O	47	47	2.0	3.0	2.7	3	0.4	0.7	H
Na (mg/L)	5	03/26/15-03/27/19	O	47	47	4.0	5.0	4.7	5	0.5	0.6	H
SO4 (mg/L)	11	03/26/15-03/27/19	O	47	47	7.0	12.0	9.6	10	1.1	1.3	
Nitrate + (mg/L)	0.31	03/26/15-03/27/19	O	47	47	0.27	0.41	0.31	0.31	0.02	0.04	
Al (DIS) (mg/L)	< 0.009	03/26/15-03/27/19	O	47	2	< 0.009	0.311					
Sb (DIS) (mg/L)	< 0.0005	03/26/15-03/27/19	O	46	0	< 0.0005	< 0 .0005					
As (DIS) (mg/L)	0.004	03/26/15-03/27/19	O	46	46	0.003	0.004	0.004	0.004	0	0.0	H
Ba (DIS) (mg/L)	0.116	03/26/15-03/27/19	O	46	46	0.1	0.122	0.112	0.112	0.005	0.869	
Be (DIS) (mg/L)	< 0.0008	03/26/15-03/27/19	O	46	0	< 0.0008	< 0 .0008					
Cd (DIS) (mg/L)	< 0	03/26/15-03/27/19	O	46	0	< 0	< .00003					
Cr (DIS) (mg/L)	< 0.01	03/26/15-03/27/19	O	46	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	03/26/15-03/27/19	O	46	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	03/26/15-03/27/19	O	46	2	< 0.002	0.015					
Fe (DIS) (mg/L)	< 0.02	03/26/15-03/27/19	O	46	4	< 0.02	0.36					
Pb (DIS) (mg/L)	< 0.0003	03/26/15-03/27/19	O	46	1	< 0.0003	0.0006					
Mn (DIS) (mg/L)	< 0.005	03/26/15-03/27/19	O	46	1	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	03/26/15-03/27/19	O	46	1	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	03/26/15-03/27/19	O	46	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	03/26/15-03/27/19	O	46	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	0.0004	03/26/15-03/27/19	O	46	42	0.0002	< .0004	0.0003	0.0003	0.0001	1.1408	H
Ag (DIS) (mg/L)	< 0.0002	03/26/15-03/27/19	O	46	0	< 0.0002	< 0 .0002					
Sr (DIS) (mg/L)	0.168	03/26/15-03/27/19	O	46	46	0.15	0.181	0.166	0.166	0.006	0.349	
Tl (DIS) (mg/L)	0.001	03/26/15-03/27/19	O	46	46	0.001	0.001	0.001	0.001	0	0.0	
U (DIS) (mg/L)	0.001	03/26/15-03/27/19	O	46	5	0.001	< .008					
Zn (DIS) (mg/L)	< 0.002	03/26/15-03/27/19	O	46	2	< 0.002	0.003					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: May 8, 2019

SAMPLE NO BBC-1902-100	LAB NO: H19020363-001	STATION:SW-1

PARAMETER	02/22/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	4.58	05/24/11-03/27/19	O	74	74	3.91	15.0	10.95	10.89	1.94	3.29	*
pH Fld (s.u.)	6.13	05/24/11-03/27/19	O	73	73	5.3	8.71	7.82	8.03	0.66	2.56	
SC Fld (umhos/cm)	333	05/24/11-03/27/19	O	74	74	176.0	363.0	286.2	311	52.4	0.9	
Water Temp (Deg C)	0.04	05/24/11-03/27/19	O	74	74	-0.97	14.5	0.48	3.35	4.77	0.09	
phTemp (Deg C)	15.7	02/22/19	DUP	1	1	16.3	16.3	16.3	16.3	0.4	1.5	L
phTemp (Deg C)	16.3	02/22/19	O	1	1	16.3	16.3	16.3	16.3	0.4	0.0	H
pH (s.u.)	8.1	02/22/19	DUP	1	1	8.1	8.1	8.1	8.1	0	0.0	H
pH (s.u.)	8.1	02/22/19	O	1	1	8.1	8.1	8.1	8.1	0	0.0	H
TDS (mg/L)	183	05/24/11-03/27/19	DUP	71	71	107.0	227.0	169.8	180	27.1	0.5	
TDS (mg/L)	189	05/24/11-03/27/19	O	71	71	107.0	227.0	169.8	180	27.1	0.7	
TSS (mg/L)	< 4	05/30/12-03/27/19	DUP	67	25	< 4	43.0					
TSS (mg/L)	< 4	05/30/12-03/27/19	O	67	25	< 4	43.0					
Tot Alk (mg/L)	170	05/24/11-03/27/19	DUP	71	71	87.0	200.0	153.6	170	30.3	0.5	
Tot Alk (mg/L)	170	05/24/11-03/27/19	O	71	71	87.0	200.0	153.6	170	30.3	0.5	
Ca (mg/L)	51	05/24/11-03/27/19	O	71	71	23.0	55.0	42.5	46	8.6	1.0	
Ca (mg/L)	50	05/24/11-03/27/19	DUP	71	71	23.0	55.0	42.5	46	8.6	0.9	
Chloride (mg/L)	1	05/24/11-03/27/19	DUP	71	70	1.0	5.0	1.4	1	0.7	0.5	L
Chloride (mg/L)	1	05/24/11-03/27/19	O	71	70	1.0	5.0	1.4	1	0.7	0.5	L
F (mg/L)	0.1	05/24/11-03/27/19	DUP	71	22	< 0.1	0.2					
F (mg/L)	0.1	05/24/11-03/27/19	O	71	22	< 0.1	0.2					
Tot Hard (mg/L)	183	05/24/11-03/27/19	O	71	70	< 7	199.0	145.6	164	35	1.1	
Tot Hard (mg/L)	180	05/24/11-03/27/19	DUP	71	70	< 7	199.0	145.6	164	35	1.0	
Mg (mg/L)	14	05/24/11-03/27/19	O	71	71	6.0	15.0	11.2	12	2.4	1.2	
Mg (mg/L)	13	05/24/11-03/27/19	DUP	71	71	6.0	15.0	11.2	12	2.4	0.7	
K (mg/L)	1	05/24/11-03/27/19	DUP	71	68	1.0	3.0	1.1	1	0.5	0.2	L
K (mg/L)	1	05/24/11-03/27/19	O	71	68	1.0	3.0	1.1	1	0.5	0.2	L
Na (mg/L)	2	05/24/11-03/27/19	DUP	71	71	1.0	3.0	2.2	2	0.5	0.3	
Na (mg/L)	2	05/24/11-03/27/19	O	71	71	1.0	3.0	2.2	2	0.5	0.3	
SO4 (mg/L)	7	05/24/11-03/27/19	DUP	71	71	2.0	18.0	5.2	5	2.1	0.9	
SO4 (mg/L)	7	05/24/11-03/27/19	O	71	71	2.0	18.0	5.2	5	2.1	0.9	
Nitrate + (mg/L)	0.12	05/24/11-03/27/19	DUP	71	34	< 0.01	0.15					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Nitrate + (mg/L)	0.12	05/24/11-03/27/19	O	71	34	< 0.01	0.15				
P (mg/L)	0.016	05/16/14-03/27/19	DUP	57	53	< 0.003	0.09	0.012	0.011	0.015	0.237
P (mg/L)	0.016	05/16/14-03/27/19	O	57	53	< 0.003	0.09	0.012	0.011	0.015	0.237
Total Pers (mg/L)	0.2	04/29/15-03/27/19	DUP	45	41	< 0	1.1	0.1	0.2	0.2	0.4
Total Pers (mg/L)	0.21	04/29/15-03/27/19	O	45	41	< 0	1.12	0.13	0.15	0.17	0.48
Al (DIS) (mg/L)	< 0.009	05/24/11-03/27/19	DUP	71	26	< 0.009	0.333				
Al (DIS) (mg/L)	< 0.009	05/24/11-03/27/19	O	71	26	< 0.009	0.333				
Sb (TRC) (mg/L)	< 0.0005	05/24/11-03/27/19	O	71	0	< 0.0005	< .005				
Sb (TRC) (mg/L)	< 0.0005	05/24/11-03/27/19	DUP	71	0	< 0.0005	< .005				
As (TRC) (mg/L)	< 0.001	05/24/11-03/27/19	DUP	71	12	< 0.001	< .003				
As (TRC) (mg/L)	< 0.001	05/24/11-03/27/19	O	71	12	< 0.001	< .003				
Ba (TRC) (mg/L)	0.107	05/24/11-03/27/19	DUP	71	71	0.083	0.127	0.104	0.104	0.009	0.301
Ba (TRC) (mg/L)	0.107	05/24/11-03/27/19	O	71	71	0.083	0.127	0.104	0.104	0.009	0.301
Be (TRC) (mg/L)	< 0.0008	05/24/11-03/27/19	DUP	71	0	< 0.0008	< .001				
Be (TRC) (mg/L)	< 0.0008	05/24/11-03/27/19	O	71	0	< 0.0008	< .001				
Cd (TRC) (mg/L)	< 0	05/24/11-03/27/19	O	71	5	< 0	0.0002				
Cd (TRC) (mg/L)	< 0	05/24/11-03/27/19	DUP	71	5	< 0	0.0002				
Cr (TRC) (mg/L)	< 0.01	05/24/11-03/27/19	O	71	2	< 0	< .01				
Cr (TRC) (mg/L)	< 0.01	05/24/11-03/27/19	DUP	71	2	< 0	< .01				
Co (TRC) (mg/L)	< 0.01	05/24/11-03/27/19	O	71	0	< 0.01	< .01				
Co (TRC) (mg/L)	< 0.01	05/24/11-03/27/19	DUP	71	0	< 0.01	< .01				
Cu (TRC) (mg/L)	< 0.002	05/24/11-03/27/19	O	71	5	< 0.001	0.003				
Cu (TRC) (mg/L)	< 0.002	05/24/11-03/27/19	DUP	71	5	< 0.001	0.003				
Fe (TRC) (mg/L)	0.13	05/24/11-03/27/19	O	71	71	0.11	1.86	0.23	0.17	0.35	0.28
Fe (TRC) (mg/L)	0.13	05/24/11-03/27/19	DUP	71	71	0.11	1.86	0.23	0.17	0.35	0.28
Pb (TRC) (mg/L)	< 0.0003	05/24/11-03/27/19	O	71	13	< 0.0003	0.0015				
Pb (TRC) (mg/L)	< 0.0003	05/24/11-03/27/19	DUP	71	13	< 0.0003	0.0015				
Mn (TRC) (mg/L)	0.014	05/24/11-03/27/19	O	71	71	0.009	0.053	0.017	0.016	0.011	0.29
Mn (TRC) (mg/L)	0.014	05/24/11-03/27/19	DUP	71	71	0.009	0.053	0.017	0.016	0.011	0.29
Hg (TRC) (ug/L)	< 0.005	05/24/11-03/27/19	DUP	71	11	< 0	0.007				
Hg (TRC) (ug/L)	< 0.005	05/24/11-03/27/19	O	71	11	< 0	0.007				
Mo (TRC) (mg/L)	< 0.002	05/24/11-03/27/19	DUP	71	0	< 0.001	< .005				
Mo (TRC) (mg/L)	< 0.002	05/24/11-03/27/19	O	71	0	< 0.001	< .005				
Ni (TRC) (mg/L)	< 0.001	05/24/11-03/27/19	DUP	71	10	< 0.001	< .01				

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Ni (TRC) (mg/L)	< 0.001	05/24/11-03/27/19	O	71	10	< 0.001	< .01					
Se (TRC) (mg/L)	< 0.0002	05/24/11-03/27/19	O	71	0	< 0.0002	< .001					
Se (TRC) (mg/L)	< 0.0002	05/24/11-03/27/19	DUP	71	0	< 0.0002	< .001					
Ag (TRC) (mg/L)	< 0.0002	05/24/11-03/27/19	DUP	71	0	< 0.0002	< .0005					
Ag (TRC) (mg/L)	< 0.0002	05/24/11-03/27/19	O	71	0	< 0.0002	< .0005					
Sr (TRC) (mg/L)	0.128	05/24/11-03/27/19	O	71	68	0.078	0.147	0.116	0.119	0.016	0.746	
Sr (TRC) (mg/L)	0.128	05/24/11-03/27/19	DUP	71	68	0.078	0.147	0.116	0.119	0.016	0.746	
Tl (TRC) (mg/L)	< 0.0002	05/24/11-03/27/19	DUP	71	0	< 0.0002	: 0 .0002					
Tl (TRC) (mg/L)	< 0.0002	05/24/11-03/27/19	O	71	0	< 0.0002	: 0 .0002					
U (TRC) (mg/L)	0.0004	05/24/11-03/27/19	DUP	71	12	< 0.0003	< .008					
U (TRC) (mg/L)	0.0004	05/24/11-03/27/19	O	71	12	< 0.0003	< .008					
Zn (TRC) (mg/L)	< 0.002	05/24/11-03/27/19	O	71	24	< 0.002	< .01					
Zn (TRC) (mg/L)	< 0.002	05/24/11-03/27/19	DUP	71	24	< 0.002	< .01					

SAMPLE NO BBC-1902-105 LAB NO: H19020363-004 STATION:SW-2

02/22/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	11.09	05/24/11-03/28/19	O	74	74	6.35	16.18	11.04	10.94	1.72	0.03	
pH Fld (s.u.)	6.38	05/24/11-03/28/19	O	73	73	0.0	8.73	6.76	8.06	1.02	0.38	
SC Fld (umhos/cm)	188	05/24/11-03/28/19	O	74	74	156.0	388.0	278.9	306	53.9	1.7	
Water Temp (Deg C)	0	05/24/11-03/28/19	O	74	74	-1.0	15.8	0.2	3	4.9	0.0	
phTemp (Deg C)	15.4	02/22/19	O	1	1	15.4	15.4	15.4	15.4	0	0.0	H
pH (s.u.)	8.1	02/22/19	O	1	1	8.1	8.1	8.1	8.1	0	0.0	H
TDS (mg/L)	174	05/24/11-03/28/19	O	71	71	112.0	223.0	165.5	173	25.2	0.3	
TSS (mg/L)	< 4	05/30/12-03/28/19	O	67	19	4.0	105.0					
Tot Alk (mg/L)	170	05/24/11-03/28/19	O	71	71	80.0	200.0	151.0	160	27.3	0.7	
Ca (mg/L)	50	05/24/11-03/28/19	O	71	71	21.0	58.0	42.7	46	8.1	0.9	
Chloride (mg/L)	1	05/24/11-03/28/19	O	71	69	< 1	5.0	1.3	1	0.7	0.5	L
F (mg/L)	< 0.1	05/24/11-03/28/19	O	71	1	< 0.1	0.4					
Tot Hard (mg/L)	176	05/24/11-03/28/19	O	71	70	< 7	202.0	144.5	164	32.8	1.0	
Mg (mg/L)	13	05/24/11-03/28/19	O	71	71	5.0	15.0	10.8	12	2.1	1.0	
K (mg/L)	1	05/24/11-03/28/19	O	71	66	1.0	2.0	1.0	1	0.1	0.1	L
Na (mg/L)	2	05/24/11-03/28/19	O	71	71	1.0	3.0	2.0	2	0.3	0.1	
SO4 (mg/L)	7	05/24/11-03/28/19	O	71	71	2.0	9.0	5.0	5	1.6	1.3	
Nitrate + (mg/L)	0.1	05/24/11-03/28/19	O	71	35	< 0	0.1					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

P (mg/L)	0.012	05/16/14-03/28/19	O	57	49	< 0.003	0.182	0.01	0.008	0.023	0.108
Total Pers (mg/L)	0.15	04/29/15-03/28/19	O	45	39	< 0	1.39	0.1	0.1	0.25	0.18
Al (DIS) (mg/L)	< 0.009	05/24/11-03/28/19	O	71	31	< 0.009	0.39				
Sb (TRC) (mg/L)	< 0.0005	05/24/11-03/28/19	O	71	0	< 0.0005	< .005				
As (TRC) (mg/L)	< 0.001	05/24/11-03/28/19	O	71	1	< 0.001	< .003				
Ba (TRC) (mg/L)	0.098	05/24/11-03/28/19	O	71	71	0.07	0.128	0.094	0.095	0.011	0.324
Be (TRC) (mg/L)	< 0.0008	05/24/11-03/28/19	O	71	0	< 0.0008	< .001				
Cd (TRC) (mg/L)	< 0	05/24/11-03/28/19	O	71	3	< 0	< .00008				
Cr (TRC) (mg/L)	< 0.01	05/24/11-03/28/19	O	71	1	< 0	< .01				
Co (TRC) (mg/L)	< 0.01	05/24/11-03/28/19	O	71	0	< 0.01	< .01				
Cu (TRC) (mg/L)	< 0.002	05/24/11-03/28/19	O	71	5	< 0.001	0.004				
Fe (TRC) (mg/L)	0.12	05/24/11-03/28/19	O	71	71	0.09	2.49	0.2	0.15	0.34	0.24
Pb (TRC) (mg/L)	< 0.0003	05/24/11-03/28/19	O	71	14	< 0.0003	0.0017				
Mn (TRC) (mg/L)	0.009	05/24/11-03/28/19	O	71	71	0.006	0.116	0.011	0.01	0.013	0.165
Hg (TRC) (ug/L)	< 0.005	05/24/11-03/28/19	O	71	11	< 0	< .005				
Mo (TRC) (mg/L)	< 0.002	05/24/11-03/28/19	O	71	0	< 0.001	< .005				
Ni (TRC) (mg/L)	< 0.001	05/24/11-03/28/19	O	71	11	< 0.001	< .01				
Se (TRC) (mg/L)	< 0.0002	05/24/11-03/28/19	O	71	0	< 0.0002	< .001				
Ag (TRC) (mg/L)	< 0.0002	05/24/11-03/28/19	O	71	0	< 0.0002	< .0005				
Sr (TRC) (mg/L)	0.128	05/24/11-03/28/19	O	71	69	0.082	0.15	0.119	0.123	0.015	0.626
Tl (TRC) (mg/L)	< 0.0002	05/24/11-03/28/19	O	71	0	< 0.0002	: 0 .0002				
U (TRC) (mg/L)	0.0004	05/24/11-03/28/19	O	71	10	< 0.0003	< .008				
Zn (TRC) (mg/L)	< 0.002	05/24/11-03/28/19	O	71	20	< 0.002	0.014				

SAMPLE NO BBC-1902-103 LAB NO: z

STATION:SW-3

02/22/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Cubic Ft Sec)	0	05/24/11-10/23/18	OBS	25	25	0.0	4.9	0.2	0.1	0.9	0.2	L

SAMPLE NO BBC-1902-106 LAB NO: H19020363-005

STATION:USGS-SC1

02/22/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	11.07	03/24/14-03/28/19	O	61	61	7.12	16.55	11.15	11.16	1.6	0.05	
pH Fld (s.u.)	6.67	03/24/14-03/28/19	O	60	60	6.67	8.67	7.97	8.16	0.43	3.02	*L
SC Fld (umhos/cm)	263	03/24/14-03/28/19	O	61	61	137.0	408.0	325.2	344	50.2	1.2	
Water Temp (Deg C)	0.01	03/24/14-03/28/19	O	61	61	-0.98	13.1	0.33	2.8	4.18	0.08	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

phTemp (Deg C)	15.8	02/22/19	O	1	1	15.8	15.8	15.8	15.8	0	0.0	H
pH (s.u.)	8.2	02/22/19	O	1	1	8.2	8.2	8.2	8.2	0	0.0	H
TDS (mg/L)	195	03/24/14-03/28/19	O	59	59	134.0	230.0	188.8	195	18.8	0.3	
TSS (mg/L)	< 4	03/24/14-03/28/19	O	59	16	< 4	38.0					
Tot Alk (mg/L)	190	03/24/14-03/28/19	O	59	59	120.0	220.0	176.3	180	20.6	0.7	
Ca (mg/L)	56	03/24/14-03/28/19	O	59	59	35.0	61.0	50.6	52	5.7	1.0	
Chloride (mg/L)	1	03/24/14-03/28/19	O	59	59	1.0	5.0	1.5	1.5	0.9	0.5	L
F (mg/L)	< 0.1	03/24/14-03/28/19	O	59	1	< 0.1	< 0 .1					
Tot Hard (mg/L)	199	03/24/14-03/28/19	O	59	58	< 7	214.0	168.3	185	29	1.1	
Mg (mg/L)	14	03/24/14-03/28/19	O	59	59	8.0	15.0	12.6	13	1.5	0.9	
K (mg/L)	1	03/24/14-03/28/19	O	59	59	1.0	1.0	1.0	1	0	0.0	H
Na (mg/L)	2	03/24/14-03/28/19	O	59	59	2.0	3.0	2.1	2	0.3	0.2	L
SO4 (mg/L)	8	03/24/14-03/28/19	O	59	59	3.0	8.0	5.7	6	1.4	1.6	H
Nitrate + (mg/L)	0.11	03/24/14-03/28/19	O	59	41	< 0.01	0.13	0.03	0.03	0.04	2.0	
P (mg/L)	0.011	05/16/14-03/28/19	O	56	41	0.003	0.05	0.007	0.007	0.008	0.484	
Total Pers (mg/L)	0.16	04/29/15-03/28/19	O	45	35	< 0	1.1	0.08	0.09	0.16	0.48	
Al (DIS) (mg/L)	< 0.009	03/24/14-03/28/19	O	59	17	< 0.009	0.189					
Sb (TRC) (mg/L)	< 0.0005	03/24/14-03/28/19	O	59	0	< 0.0005	: 0 .0005					
As (TRC) (mg/L)	< 0.001	03/24/14-03/28/19	O	59	1	< 0.001	< 0 .001					
Ba (TRC) (mg/L)	0.065	03/24/14-03/28/19	O	59	59	0.06	0.088	0.069	0.068	0.005	0.795	
Be (TRC) (mg/L)	< 0.0008	03/24/14-03/28/19	O	59	0	< 0.0008	: 0 .0008					
Cd (TRC) (mg/L)	< 0	03/24/14-03/28/19	O	59	2	< 0	0.0001					
Cr (TRC) (mg/L)	< 0.01	03/24/14-03/28/19	O	59	0	< 0.01	< .01					
Co (TRC) (mg/L)	< 0.01	03/24/14-03/28/19	O	59	0	< 0.01	< .01					
Cu (TRC) (mg/L)	< 0.002	03/24/14-03/28/19	O	59	1	< 0.002	< 0 .002					
Fe (TRC) (mg/L)	0.13	03/24/14-03/28/19	O	59	59	0.07	1.71	0.17	0.12	0.28	0.14	
Pb (TRC) (mg/L)	< 0.0003	03/24/14-03/28/19	O	59	7	< 0.0003	0.0011					
Mn (TRC) (mg/L)	0.008	03/24/14-03/28/19	O	59	59	0.005	0.079	0.009	0.008	0.01	0.127	
Hg (TRC) (ug/L)	< 0.005	03/24/14-03/28/19	O	59	2	< 0	< .005					
Mo (TRC) (mg/L)	< 0.002	03/24/14-03/28/19	O	59	0	< 0.001	< .002					
Ni (TRC) (mg/L)	< 0.001	03/24/14-03/28/19	O	59	7	< 0.001	0.003					
Se (TRC) (mg/L)	< 0.0002	03/24/14-03/28/19	O	59	0	< 0.0002	< .0004					
Ag (TRC) (mg/L)	< 0.0002	03/24/14-03/28/19	O	59	1	< 0.0002	< .0004					
Sr (TRC) (mg/L)	0.144	03/24/14-03/28/19	O	59	59	0.121	0.16	0.142	0.144	0.009	0.206	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Tl (TRC) (mg/L)	< 0.0002	03/24/14-03/28/19	O	59	0	< 0.0002	: 0 .0002
U (TRC) (mg/L)	0.0004	03/24/14-03/28/19	O	59	6	0.0003	< .008
Zn (TRC) (mg/L)	< 0.002	03/24/14-03/28/19	O	59	17	< 0.002	0.009

SAMPLE NO BBC-1902-117 LAB NO: z STATION:SP-5

02/22/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
Flow (Gallons Per Min)	0	08/28/18-10/23/18	OBS	2	2	0.6	0.9	0.8	0.8	0.5	1.5 L

SAMPLE NO BBC-1902-120 LAB NO: H19020364-006 STATION:DI-Blank

02/22/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
phTemp (Deg C)	16.8	N/A	FB	0							
phTemp (Deg C)	16	N/A	FB	0							
pH (s.u.)	5.7	N/A	FB	0							
pH (s.u.)	5.7	N/A	FB	0							
TDS (mg/L)	< 10	N/A	FB	0							
TDS (mg/L)	< 10	N/A	FB	0							
TSS (mg/L)	< 10	N/A	FB	0							
TSS (mg/L)	< 4	N/A	FB	0							
Tot Alk (mg/L)	< 4	N/A	FB	0							
Tot Alk (mg/L)	< 4	N/A	FB	0							
Ca (mg/L)	< 1	N/A	FB	0							
Ca (mg/L)	< 1	N/A	FB	0							
Chloride (mg/L)	< 1	N/A	FB	0							
Chloride (mg/L)	< 1	N/A	FB	0							
F (mg/L)	< 0.1	N/A	FB	0							
F (mg/L)	< 0.1	N/A	FB	0							
Tot Hard (mg/L)	< 1	N/A	FB	0							
Tot Hard (mg/L)	1	N/A	FB	0							
Mg (mg/L)	< 1	N/A	FB	0							
Mg (mg/L)	< 1	N/A	FB	0							
K (mg/L)	< 1	N/A	FB	0							
K (mg/L)	< 1	N/A	FB	0							
Na (mg/L)	< 1	N/A	FB	0							
Na (mg/L)	< 1	N/A	FB	0							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

SO4 (mg/L)	< 1	N/A	FB	0
SO4 (mg/L)	< 1	N/A	FB	0
Nitrate + (mg/L)	< 0.01	N/A	FB	0
Nitrate + (mg/L)	< 0.01	N/A	FB	0
P (mg/L)	< 0.003	N/A	FB	0
Total Pers (mg/L)	< 0.04	N/A	FB	0
Al (DIS) (mg/L)	< 0.009	N/A	FB	0
Al (DIS) (mg/L)	< 0.009	N/A	FB	0
Sb (TRC) (mg/L)	< 0.0005	N/A	FB	0
Sb (DIS) (mg/L)	< 0.0005	N/A	FB	0
As (TRC) (mg/L)	< 0.001	N/A	FB	0
As (DIS) (mg/L)	< 0.001	N/A	FB	0
Ba (TRC) (mg/L)	< 0.003	N/A	FB	0
Ba (DIS) (mg/L)	< 0.003	N/A	FB	0
Be (DIS) (mg/L)	< 0.0008	N/A	FB	0
Be (TRC) (mg/L)	< 0.0008	N/A	FB	0
Cd (DIS) (mg/L)	< 0	N/A	FB	0
Cd (TRC) (mg/L)	< 0	N/A	FB	0
Cr (TRC) (mg/L)	< 0.01	N/A	FB	0
Cr (DIS) (mg/L)	< 0.01	N/A	FB	0
Co (DIS) (mg/L)	< 0.01	N/A	FB	0
Co (TRC) (mg/L)	< 0.01	N/A	FB	0
Cu (TRC) (mg/L)	< 0.002	N/A	FB	0
Cu (DIS) (mg/L)	< 0.002	N/A	FB	0
Fe (TRC) (mg/L)	< 0.02	N/A	FB	0
Fe (DIS) (mg/L)	0.1	N/A	FB	0
Pb (TRC) (mg/L)	< 0.0003	N/A	FB	0
Pb (DIS) (mg/L)	< 0.0003	N/A	FB	0
Mn (DIS) (mg/L)	< 0.005	N/A	FB	0
Mn (TRC) (mg/L)	< 0.005	N/A	FB	0
Hg (DIS) (ug/L)	< 0.005	N/A	FB	0
Hg (TRC) (ug/L)	< 0.005	N/A	FB	0
Mo (DIS) (mg/L)	< 0.002	N/A	FB	0
Mo (TRC) (mg/L)	< 0.002	N/A	FB	0

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Ni (TRC) (mg/L)	< 0.001	N/A	FB	0
Ni (DIS) (mg/L)	< 0.001	N/A	FB	0
Se (DIS) (mg/L)	< 0.0002	N/A	FB	0
Se (TRC) (mg/L)	< 0.0002	N/A	FB	0
Ag (TRC) (mg/L)	< 0.0002	N/A	FB	0
Ag (DIS) (mg/L)	< 0.0002	N/A	FB	0
Sr (DIS) (mg/L)	0.0003	N/A	FB	0
Sr (TRC) (mg/L)	< 0.0002	N/A	FB	0
Tl (TRC) (mg/L)	< 0.0002	N/A	FB	0
Tl (DIS) (mg/L)	< 0.0002	N/A	FB	0
U (DIS) (mg/L)	< 0.0002	N/A	FB	0
U (TRC) (mg/L)	< 0.0002	N/A	FB	0
Zn (DIS) (mg/L)	< 0.002	N/A	FB	0
Zn (TRC) (mg/L)	< 0.002	N/A	FB	0

SAMPLE NO BBC-1902-104 LAB NO: H19020363-003

STATION:SW-14

PARAMETER	02/22/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	8.24	04/13/16-03/27/19	O	32	32	8.24	15.01	10.74	10.43	1.63	1.53	L
pH Fld (s.u.)	6.85	04/13/16-03/27/19	O	31	31	6.07	8.48	7.91	8.05	0.46	2.3	
SC Fld (umhos/cm)	364	04/13/16-03/27/19	O	32	32	263.0	439.0	376.8	396	49.8	0.3	
Water Temp (Deg C)	0.04	04/13/16-03/27/19	O	32	32	-0.91	14.7	2.06	5	4.63	0.44	
phTemp (Deg C)	15.4	02/22/19	O	1	1	15.4	15.4	15.4	15.4	0	0.0	H
pH (s.u.)	7.8	02/22/19	O	1	1	7.8	7.8	7.8	7.8	0	0.0	H
TDS (mg/L)	229	04/13/16-03/27/19	O	32	32	157.0	244.0	221.1	226.5	20.6	0.4	
TSS (mg/L)	< 4	04/13/16-03/27/19	O	32	4	< 4	15.0					
Tot Alk (mg/L)	220	04/13/16-03/27/19	O	32	32	130.0	220.0	202.7	210	24.3	0.7	H
Ca (mg/L)	60	04/13/16-03/27/19	O	32	32	34.0	61.0	52.8	54.5	6.5	1.1	
Chloride (mg/L)	2	04/13/16-03/27/19	O	32	32	1.0	4.0	1.9	2	0.5	0.1	
F (mg/L)	0.2	04/13/16-03/27/19	O	32	31	< 0.1	0.2	0.2	0.2	0	0.0	H
Tot Hard (mg/L)	232	04/13/16-03/27/19	O	32	32	134.0	239.0	208.7	214.5	24.9	0.9	
Mg (mg/L)	20	04/13/16-03/27/19	O	32	32	12.0	23.0	18.7	19	2.5	0.5	
K (mg/L)	1	04/13/16-03/27/19	O	32	31	1.0	4.0	1.1	1	0.7	0.1	L
Na (mg/L)	3	04/13/16-03/27/19	O	32	32	1.0	3.0	2.5	3	0.6	0.9	H
SO4 (mg/L)	9	04/13/16-03/27/19	O	32	32	6.5	19.0	9.1	8.9	2.9	0.0	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Nitrate + (mg/L)	0.19	04/13/16-03/27/19	O	32	31	0.01	0.27	0.07	0.09	0.08	1.54
P (mg/L)	0.01	04/13/16-03/27/19	O	32	27	< 0	0.18	0.01	0.01	0.03	0.07
Total Pers (mg/L)	0.29	04/13/16-03/27/19	O	29	28	< 0	1.25	0.18	0.21	0.24	0.44
Al (DIS) (mg/L)	< 0.009	04/13/16-03/27/19	O	32	3	< 0.009	0.047				
Sb (TRC) (mg/L)	< 0.0005	04/13/16-03/27/19	O	32	0	< 0.0005	: 0 .0005				
As (TRC) (mg/L)	< 0.001	04/13/16-03/27/19	O	32	0	< 0.001	< 0 .001				
Ba (TRC) (mg/L)	0.122	04/13/16-03/27/19	O	32	32	0.077	0.13	0.111	0.116	0.014	0.807
Be (TRC) (mg/L)	< 0.0008	04/13/16-03/27/19	O	32	0	< 0.0008	: 0 .0008				
Cd (TRC) (mg/L)	< 0	04/13/16-03/27/19	O	32	2	< 0	: .00003				
Cr (TRC) (mg/L)	< 0.01	04/13/16-03/27/19	O	32	0	< 0.01	< 0 .01				
Co (TRC) (mg/L)	< 0.01	04/13/16-03/27/19	O	32	0	< 0.01	< 0 .01				
Cu (TRC) (mg/L)	< 0.002	04/13/16-03/27/19	O	32	0	< 0.002	< 0 .002				
Fe (TRC) (mg/L)	0.04	04/13/16-03/27/19	O	32	29	0.02	0.43	0.06	0.06	0.08	0.19
Pb (TRC) (mg/L)	< 0.0003	04/13/16-03/27/19	O	32	1	< 0.0003	0.0005				
Mn (TRC) (mg/L)	0.009	04/13/16-03/27/19	O	32	6	< 0.005	0.009				
Hg (TRC) (ug/L)	< 0.005	04/13/16-03/27/19	O	32	1	< 0	0.018				
Mo (TRC) (mg/L)	< 0.002	04/13/16-03/27/19	O	32	0	< 0.002	< 0 .002				
Ni (TRC) (mg/L)	< 0.001	04/13/16-03/27/19	O	32	1	< 0.001	< .002				
Se (TRC) (mg/L)	< 0.0002	04/13/16-03/27/19	O	32	1	< 0.0002	< .0004				
Ag (TRC) (mg/L)	< 0.0002	04/13/16-03/27/19	O	32	0	< 0.0002	: 0 .0002				
Sr (TRC) (mg/L)	0.125	04/13/16-03/27/19	O	32	32	0.075	0.136	0.118	0.124	0.016	0.442
Tl (TRC) (mg/L)	< 0.0002	04/13/16-03/27/19	O	32	0	< 0.0002	: 0 .0002				
U (TRC) (mg/L)	0.0006	04/13/16-03/27/19	O	32	4	0.0003	< .008				
Zn (TRC) (mg/L)	< 0.002	04/13/16-03/27/19	O	32	5	< 0.002	0.006				

SAMPLE NO BBC-1902-102 LAB NO: z

STATION:SW-17

02/22/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Cubic Ft Sec)	0	01/17/18-10/23/18	OBS	8	8	0.0	1.8	0.0	0.2	0.5	0.1	L

SAMPLE NO BBC-1902-108 LAB NO: z

STATION:SW-18

02/22/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
Flow (Cubic Ft Sec)	0	N/A	OBS	0							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: May 8, 2019

SAMPLE NO BBC-1902-109	LAB NO: H19020364-001	STATION:SP-11

PARAMETER	02/22/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	6.09	04/18/18-02/22/19	O	10	10	6.09	8.36	7.2	7.12	0.69	1.61	L
pH Fld (s.u.)	7.59	04/18/18-02/22/19	O	10	10	6.28	7.98	7.42	7.65	0.56	0.3	
SC Fld (umhos/cm)	183	04/18/18-02/22/19	O	10	10	171.0	195.0	184.6	185	8.4	0.2	
Water Temp (Deg C)	6.2	04/18/18-02/22/19	O	10	10	5.6	7.4	6.3	6.3	0.5	0.3	
phTemp (Deg C)	16.2	02/22/19	O	1	1	16.2	16.2	16.2	16.2	0	0.0	H
pH (s.u.)	7.3	02/22/19	O	1	1	7.3	7.3	7.3	7.3	0	0.0	H
TDS (mg/L)	108	04/18/18-02/22/19	O	10	10	99.0	133.0	115.9	115.5	11.2	0.7	
TSS (mg/L)	10	04/18/18-02/22/19	O	10	1	10.0	10.0					
Tot Alk (mg/L)	93	04/18/18-02/22/19	O	10	10	82.0	95.0	91.3	92.5	3.8	0.4	
Ca (mg/L)	23	04/18/18-02/22/19	O	10	10	21.0	24.0	22.8	23	0.9	0.2	
Chloride (mg/L)	< 1	04/18/18-02/22/19	O	10	0	< 1	< 1					
F (mg/L)	0.2	04/18/18-02/22/19	O	10	10	0.1	0.2	0.2	0.2	0	0.0	H
Tot Hard (mg/L)	94	04/18/18-02/22/19	O	10	10	81.0	95.0	90.9	92.5	4.2	0.7	
Mg (mg/L)	9	04/18/18-02/22/19	O	10	10	7.0	9.0	8.2	8	0.6	1.4	H
K (mg/L)	1	04/18/18-02/22/19	O	10	10	1.0	2.0	1.1	1	0.3	0.2	L
Na (mg/L)	3	04/18/18-02/22/19	O	10	10	3.0	4.0	3.6	4	0.5	1.1	L
SO4 (mg/L)	7	04/18/18-02/22/19	O	10	10	5.0	8.0	6.7	7	0.9	0.3	
Nitrate + (mg/L)	0.22	04/18/18-02/22/19	O	10	10	0.22	0.31	0.25	0.25	0.03	0.96	L
Al (DIS) (mg/L)	0.022	04/18/18-02/22/19	O	10	10	0.017	0.479	0.04	0.022	0.147	0.123	
Sb (DIS) (mg/L)	< 0.0005	04/18/18-02/22/19	O	10	0	< 0.0005	< 0 .0005					
As (DIS) (mg/L)	0.005	04/18/18-02/22/19	O	10	10	0.005	0.008	0.006	0.005	0.001	0.697	L
Ba (DIS) (mg/L)	0.276	04/18/18-02/22/19	O	10	10	0.265	0.313	0.285	0.284	0.012	0.714	
Be (DIS) (mg/L)	< 0.0008	04/18/18-02/22/19	O	10	0	< 0.0008	< 0 .0008					
Cd (DIS) (mg/L)	< 0	04/18/18-02/22/19	O	10	0	< 0	< .00003					
Cr (DIS) (mg/L)	< 0.01	04/18/18-02/22/19	O	10	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	04/18/18-02/22/19	O	10	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	04/18/18-02/22/19	O	10	1	< 0.002	0.003					
Fe (DIS) (mg/L)	< 0.02	04/18/18-02/22/19	O	10	4	< 0.02	0.17					
Pb (DIS) (mg/L)	< 0.0003	04/18/18-02/22/19	O	10	0	< 0.0003	< 0 .0003					
Mn (DIS) (mg/L)	< 0.005	04/18/18-02/22/19	O	10	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	04/18/18-02/22/19	O	10	0	< 0	< .005					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Mo (DIS) (mg/L)	< 0.002	04/18/18-02/22/19	O	10	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	04/18/18-02/22/19	O	10	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	04/18/18-02/22/19	O	10	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	04/18/18-02/22/19	O	10	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.1	04/18/18-02/22/19	O	10	10	0.1	0.1	0.1	0.1	0	0.0	
Tl (DIS) (mg/L)	< 0.0002	04/18/18-02/22/19	O	10	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0003	04/18/18-02/22/19	O	10	3	0.0003	< .008					
Zn (DIS) (mg/L)	0.002	04/18/18-02/22/19	O	10	3	0.002	0.004					

SAMPLE NO BBC-1902-119 LAB NO: H19020364-005

STATION:SP-12

02/22/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
phTemp (Deg C)	16.4	02/22/19	O	1	1	16.4	16.4	16.4	16.4	0	0.0	H
pH (s.u.)	7.6	02/22/19	O	1	1	7.6	7.6	7.6	7.6	0	0.0	H
TDS (mg/L)	234	04/18/18-03/27/19	O	11	11	234.0	262.0	247.0	248	9.3	1.4	L
TSS (mg/L)	78	04/18/18-03/27/19	O	11	6	< 10	187.0	23.5	22	53.2	1.0	
Tot Alk (mg/L)	210	04/18/18-03/27/19	O	11	11	160.0	220.0	200.2	210	16.4	0.6	
Ca (mg/L)	55	04/18/18-03/27/19	O	11	11	42.0	61.0	54.2	55	4.8	0.2	
Chloride (mg/L)	7	04/18/18-03/27/19	O	11	11	5.0	15.0	7.8	8	2.7	0.3	
F (mg/L)	0.2	04/18/18-03/27/19	O	11	11	0.1	0.2	0.2	0.2	0	0.0	H
Tot Hard (mg/L)	238	04/18/18-03/27/19	O	11	11	180.0	258.0	231.7	238	20.2	0.3	
Mg (mg/L)	24	04/18/18-03/27/19	O	11	11	18.0	26.0	23.4	24	2.2	0.3	
K (mg/L)	1	04/18/18-03/27/19	O	11	11	1.0	13.0	1.4	1	3.6	0.1	L
Na (mg/L)	2	04/18/18-03/27/19	O	11	11	2.0	3.0	2.2	2	0.5	0.5	L
SO4 (mg/L)	25	04/18/18-03/27/19	O	11	11	21.0	28.0	24.1	24	2.5	0.4	
Nitrate + (mg/L)	0.29	04/18/18-03/27/19	O	11	11	0.15	0.69	0.37	0.33	0.16	0.47	
Al (DIS) (mg/L)	< 0.009	04/18/18-03/27/19	O	11	1	< 0.009	0.014					
Sb (DIS) (mg/L)	< 0.0005	04/18/18-03/27/19	O	11	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	04/18/18-03/27/19	O	11	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.175	04/18/18-03/27/19	O	11	11	0.128	0.192	0.174	0.176	0.018	0.061	
Be (DIS) (mg/L)	< 0.0008	04/18/18-03/27/19	O	11	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	04/18/18-03/27/19	O	11	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	04/18/18-03/27/19	O	11	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	04/18/18-03/27/19	O	11	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	04/18/18-03/27/19	O	11	1	0.002	0.002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Fe (DIS) (mg/L)	< 0.02	04/18/18-03/27/19	O	11	4	< 0.02	0.06					
Pb (DIS) (mg/L)	< 0.0003	04/18/18-03/27/19	O	11	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	04/18/18-03/27/19	O	11	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	04/18/18-03/27/19	O	11	1	< 0	0.018					
Mo (DIS) (mg/L)	< 0.002	04/18/18-03/27/19	O	11	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	04/18/18-03/27/19	O	11	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	0.0003	04/18/18-03/27/19	O	11	9	< 0.0002	0.0003	0.0002	0.0002	0	0.0	H
Ag (DIS) (mg/L)	< 0.0002	04/18/18-03/27/19	O	11	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.107	04/18/18-03/27/19	O	11	11	0.081	0.115	0.106	0.107	0.01	0.099	
Tl (DIS) (mg/L)	< 0.0002	04/18/18-03/27/19	O	11	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0006	04/18/18-03/27/19	O	11	5	0.0003	< .008					
Zn (DIS) (mg/L)	< 0.002	04/18/18-03/27/19	O	11	4	< 0.002	0.005					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

APPENDIX 2

DATABASE

Analyses Summary Report

Site Name: Black Butte Mi 5/8/2019 1:59:12 PM

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DS-1	DS-2	DS-3	DS-4
Water	Sample Date	2/22/2019	2/22/2019	2/22/2019	2/22/2019	2/22/2019	2/22/2019
	Sample Time	12:55:00 PM	4:52:00 PM	3:40:00 PM			
	Lab	Energy Labs	Energy Labs	Hydro	Hydro	Hydro	Hydro
	Lab Number	H19020363-006	H19020364-006	z	z	z	z
	Sample Number	BBC-1902-107	BBC-1902-120	BBC-1902-118	BBC-1902-121	BBC-1902-114	BBC-1902-115
	Remarks						
Field Parameters	Multiple Units						
Dissolved Oxygen							
Field pH							
Field Specific Conductivity							
Flow							
Flow				NF-DRY	NM	NF-DRY	NF-ICE
Water Temperature							
Physical Parameters	Multiple Units						
pH Measurement Temp	16	16.8					
pH	5.7 H	5.7 H					
Total Dissolved Solids	<10	<10					
Total Suspended Solids	<4	<10					
Major Constituents - Commons Ions	mg/L						
Alkalinity as CaCO3	<4	<4					
Calcium (DIS)	<1	<1					
Chloride	<1	<1					
Fluoride	<0.1	<0.1					
Hardness as CaCO3	<1	1					
Magnesium (DIS)	<1	<1					
Potassium (DIS)	<1	<1					
Sodium (DIS)	<1	<1					
Sulfate	<1	<1					
Nutrients	mg/L						
Nitrate + Nitrite as N	<0.01	<0.01					
Phosphorus (TOT)	<0.003						
Total Persulfate Nitrogen	<0.04						
Metals - Trace Constituents	Multiple Units						
Aluminum (DIS)	<0.009	<0.009					
Antimony (DIS)		<0.0005					
Antimony (TRC)	<0.0005						
Arsenic (DIS)		<0.001					
Arsenic (TRC)	<0.001						
Barium (DIS)		<0.003					
Barium (TRC)	<0.003						
Beryllium (DIS)		<0.0008					
Beryllium (TRC)	<0.0008						
Cadmium (DIS)		<0.00003					
Cadmium (TRC)	<0.00003						
Chromium (DIS)		<0.01					
Chromium (TRC)	<0.01						

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DS-1	DS-2	DS-3	DS-4
Water	Sample Date	2/22/2019	2/22/2019	2/22/2019	2/22/2019	2/22/2019	2/22/2019
	Sample Time	12:55:00 PM	4:52:00 PM	3:40:00 PM			
	Lab	Energy Labs	Energy Labs	Hydro	Hydro	Hydro	Hydro
	Lab Number	H19020363-006	H19020364-006	z	z	z	z
	Sample Number	BBC-1902-107	BBC-1902-120	BBC-1902-118	BBC-1902-121	BBC-1902-114	BBC-1902-115
	Remarks						

Metals - Trace Constituents	Multiple Units	
Cobalt (DIS)		<0.01
Cobalt (TRC)	<0.01	
Copper (DIS)		<0.002
Copper (TRC)	<0.002	
Iron (DIS)		0.1
Iron (TRC)	<0.02	
Lead (DIS)		<0.0003
Lead (TRC)	<0.0003	
Manganese (DIS)		<0.005
Manganese (TRC)	<0.005	
Mercury (DIS)		<0.005
Mercury (TRC)	<0.005	
Molybdenum (DIS)		<0.002
Molybdenum (TRC)	<0.002	
Nickel (DIS)		<0.001
Nickel (TRC)	<0.001	
Selenium (DIS)		<0.0002
Selenium (TRC)	<0.0002	
Silver (DIS)		<0.0002
Silver (TRC)	<0.0002	
Strontium (DIS)		0.0003
Strontium (TRC)	<0.0002	
Thallium (DIS)		<0.0002
Thallium (TRC)	<0.0002	
Uranium (DIS)		<0.0002
Uranium (TRC)	<0.0002	
Zinc (DIS)		<0.002
Zinc (TRC)	<0.002	

Sample Type:	Station (Site)	SP-10	SP-11	SP-12	SP-3	SP-4	SP-4
Water	Sample Date	2/22/2019	2/22/2019	2/22/2019	2/22/2019	2/22/2019	2/22/2019
	Sample Time		1:40:00 PM	4:25:00 PM		2:50:00 PM	3:05:00 PM
	Lab	Hydro	Energy Labs	Energy Labs	Hydro	Energy Labs	Energy Labs
	Lab Number	z	H19020364-001	H19020364-005	z	H19020364-003	H19020364-004
	Sample Number	BBC-1902-116	BBC-1902-109	BBC-1902-119	BBC-1902-122	BBC-1902-111	BBC-1902-112
	Remarks						DUPLICATE
Field Parameters	Multiple Units						
Dissolved Oxygen			6.09			9.92	
Field pH			7.59 A			7.86 A	
Field Specific Conductivity			183			428	
Flow							
Flow		NM-ICE	NM	NM-ICE	NF-ICE	NM-ICE	
Water Temperature			6.2			3.6	
Physical Parameters	Multiple Units						
pH Measurement Temp			16.2	16.4		16	16.2
pH			7.3 H	7.6 H		7.8 H	8.0 H
Total Dissolved Solids			108	234		234	237
Total Suspended Solids			10	78		11	20
Major Constituents - Commons Ions	mg/L						
Alkalinity as CaCO3			93	210		200	200
Calcium (DIS)			23	55		53	53
Chloride			<1	7		<1	<1
Fluoride			0.2	0.2		0.2	0.2
Hardness as CaCO3			94	238		246	245
Magnesium (DIS)			9	24		28	27
Potassium (DIS)			1	1		2	2
Sodium (DIS)			3	2		2	2
Sulfate			7	25		38	38
Nutrients	mg/L						
Nitrate + Nitrite as N			0.22	0.29		0.25	0.24
Phosphorus (TOT)							
Total Persulfate Nitrogen							
Metals - Trace Constituents	Multiple Units						
Aluminum (DIS)			0.022	<0.009		<0.009	<0.009
Antimony (DIS)			<0.0005	<0.0005		<0.0005	<0.0005
Antimony (TRC)							
Arsenic (DIS)			0.005	<0.001		<0.001	<0.001
Arsenic (TRC)							
Barium (DIS)			0.276	0.175		0.114	0.114
Barium (TRC)							
Beryllium (DIS)			<0.0008	<0.0008		<0.0008	<0.0008
Beryllium (TRC)							
Cadmium (DIS)			<0.00003	<0.00003		<0.00003	<0.00003
Cadmium (TRC)							
Chromium (DIS)			<0.01	<0.01		<0.01	<0.01
Chromium (TRC)							

Sample Type:	Station (Site)	SP-10	SP-11	SP-12	SP-3	SP-4	SP-4
Water	Sample Date	2/22/2019	2/22/2019	2/22/2019	2/22/2019	2/22/2019	2/22/2019
	Sample Time		1:40:00 PM	4:25:00 PM		2:50:00 PM	3:05:00 PM
	Lab	Hydro	Energy Labs	Energy Labs	Hydro	Energy Labs	Energy Labs
	Lab Number	z	H19020364-001	H19020364-005	z	H19020364-003	H19020364-004
	Sample Number	BBC-1902-116	BBC-1902-109	BBC-1902-119	BBC-1902-122	BBC-1902-111	BBC-1902-112
	Remarks						DUPLICATE
Metals - Trace Constituents	Multiple Units						
	Cobalt (DIS)		<0.01	<0.01		<0.01	<0.01
	Cobalt (TRC)						
	Copper (DIS)		<0.002	<0.002		<0.002	<0.002
	Copper (TRC)						
	Iron (DIS)		<0.02	<0.02		<0.02	<0.02
	Iron (TRC)						
	Lead (DIS)		<0.0003	<0.0003		<0.0003	<0.0003
	Lead (TRC)						
	Manganese (DIS)		<0.005	<0.005		<0.005	<0.005
	Manganese (TRC)						
	Mercury (DIS)		<0.005	<0.005		<0.005	<0.005
	Mercury (TRC)						
	Molybdenum (DIS)		<0.002	<0.002		<0.002	<0.002
	Molybdenum (TRC)						
	Nickel (DIS)		<0.001	<0.001		<0.001	<0.001
	Nickel (TRC)						
	Selenium (DIS)		<0.0002	0.0003		0.0004	0.0004
	Selenium (TRC)						
	Silver (DIS)		<0.0002	<0.0002		<0.0002	<0.0002
	Silver (TRC)						
	Strontium (DIS)		0.1	0.107		0.0753	0.0749
	Strontium (TRC)						
	Thallium (DIS)		<0.0002	<0.0002		0.0003	0.0003
	Thallium (TRC)						
	Uranium (DIS)		0.0003	0.0006		0.0005	0.0005
	Uranium (TRC)						
	Zinc (DIS)		0.002	<0.002		<0.002	<0.002
	Zinc (TRC)						

Sample Type:	Station (Site)	SP-5	SP-6	SP-7	SW-1	SW-1	SW-14
Water	Sample Date	2/22/2019	2/22/2019	2/22/2019	2/22/2019	2/22/2019	2/22/2019
	Sample Time	3:20:00 PM		2:20:00 PM	10:40:00 AM	10:55:00 AM	12:00:00 PM
	Lab	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	z	z	H19020364-002	H19020363-001	H19020363-002	H19020363-003
	Sample Number	BBC-1902-117	BBC-1902-113	BBC-1902-110	BBC-1902-100	BBC-1902-101	BBC-1902-104
	Remarks					DUPLICATE	

Field Parameters	Multiple Units					
Dissolved Oxygen			4.59	4.58		8.24
Field pH			7.37 A	6.13 A		6.85 A
Field Specific Conductivity			330	333		364
Flow				NM		NM-ICE
Flow	NF-DRY	NM-ICE	NM			
Water Temperature			6.14	0.04		0.04
Physical Parameters	Multiple Units					
pH Measurement Temp			16.1	16.3	15.7	15.4
pH			7.4 H	8.1 H	8.1 H	7.8 H
Total Dissolved Solids			176	189 D	183 D	229 D
Total Suspended Solids			<10	<4	<4	<4
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3			170	170	170	220
Calcium (DIS)			42	51	50	60
Chloride			2	1	1	2
Fluoride			0.3	0.1	0.1	0.2
Hardness as CaCO3			166	183	180	232
Magnesium (DIS)			15	14	13	20
Potassium (DIS)			3	1	1	1
Sodium (DIS)			5	2	2	3
Sulfate			11	7	7	9
Nutrients	mg/L					
Nitrate + Nitrite as N			0.31	0.12	0.12	0.19
Phosphorus (TOT)				0.016	0.016	0.01
Total Persulfate Nitrogen				0.21	0.2	0.29
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)			<0.009	<0.009	<0.009	<0.009
Antimony (DIS)			<0.0005			
Antimony (TRC)				<0.0005	<0.0005	<0.0005
Arsenic (DIS)			0.004			
Arsenic (TRC)				<0.001	<0.001	<0.001
Barium (DIS)			0.116			
Barium (TRC)				0.107	0.107	0.122
Beryllium (DIS)			<0.0008			
Beryllium (TRC)				<0.0008	<0.0008	<0.0008
Cadmium (DIS)			<0.00003			
Cadmium (TRC)				<0.00003	<0.00003	<0.00003
Chromium (DIS)			<0.01			
Chromium (TRC)				<0.01	<0.01	<0.01

Sample Type:	Station (Site)	SP-5	SP-6	SP-7	SW-1	SW-1	SW-14
Water	Sample Date	2/22/2019	2/22/2019	2/22/2019	2/22/2019	2/22/2019	2/22/2019
	Sample Time	3:20:00 PM		2:20:00 PM	10:40:00 AM	10:55:00 AM	12:00:00 PM
	Lab	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	z	z	H19020364-002	H19020363-001	H19020363-002	H19020363-003
	Sample Number	BBC-1902-117	BBC-1902-113	BBC-1902-110	BBC-1902-100	BBC-1902-101	BBC-1902-104
	Remarks					DUPLICATE	

Metals - Trace Constituents Multiple Units					
Cobalt (DIS)	<0.01				
Cobalt (TRC)		<0.01	<0.01	<0.01	
Copper (DIS)	<0.002				
Copper (TRC)		<0.002	<0.002	<0.002	
Iron (DIS)	<0.02				
Iron (TRC)		0.13	0.13	0.04	
Lead (DIS)	<0.0003				
Lead (TRC)		<0.0003	<0.0003	<0.0003	
Manganese (DIS)	<0.005				
Manganese (TRC)		0.014	0.014	0.009	
Mercury (DIS)	<0.005				
Mercury (TRC)		<0.005	<0.005	<0.005	
Molybdenum (DIS)	<0.002				
Molybdenum (TRC)		<0.002	<0.002	<0.002	
Nickel (DIS)	<0.001				
Nickel (TRC)		<0.001	<0.001	<0.001	
Selenium (DIS)	0.0004				
Selenium (TRC)		<0.0002	<0.0002	<0.0002	
Silver (DIS)	<0.0002				
Silver (TRC)		<0.0002	<0.0002	<0.0002	
Strontium (DIS)	0.168				
Strontium (TRC)		0.128 D	0.128 D	0.125 D	
Thallium (DIS)	0.001				
Thallium (TRC)		<0.0002	<0.0002	<0.0002	
Uranium (DIS)	0.001				
Uranium (TRC)		0.0004	0.0004	0.0006	
Zinc (DIS)	<0.002				
Zinc (TRC)		<0.002	<0.002	<0.002	

Sample Type:	Station (Site)	SW-17	SW-18	SW-2	SW-3	USGS-SC1
Water	Sample Date	2/22/2019	2/22/2019	2/22/2019	2/22/2019	2/22/2019
	Sample Time	11:15:00 AM	1:15:00 PM	12:30:00 PM	11:40:00 AM	12:40:00 PM
	Lab	Hydro	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	z	z	H19020363-004	z	H19020363-005
	Sample Number	BBC-1902-102	BBC-1902-108	BBC-1902-105	BBC-1902-103	BBC-1902-106
	Remarks					

Field Parameters	Multiple Units				
Dissolved Oxygen			11.09		11.07
Field pH			6.38 A		6.67 A
Field Specific Conductivity			188		263
Flow	NF-DRY	NF-DRY	NM-ICE	NF-DRY	NM-ICE
Flow					
Water Temperature			0		0.01
Physical Parameters	Multiple Units				
pH Measurement Temp			15.4		15.8
pH			8.1 H		8.2 H
Total Dissolved Solids			174 D		195 D
Total Suspended Solids			<4		<4
Major Constituents - Commons Ions	mg/L				
Alkalinity as CaCO3			170		190
Calcium (DIS)			50		56
Chloride			1		1
Fluoride			<0.1		<0.1
Hardness as CaCO3			176		199
Magnesium (DIS)			13		14
Potassium (DIS)			1		1
Sodium (DIS)			2		2
Sulfate			7		8
Nutrients	mg/L				
Nitrate + Nitrite as N			0.1		0.11
Phosphorus (TOT)			0.012		0.011
Total Persulfate Nitrogen			0.15		0.16
Metals - Trace Constituents	Multiple Units				
Aluminum (DIS)			<0.009		<0.009
Antimony (DIS)					
Antimony (TRC)			<0.0005		<0.0005
Arsenic (DIS)					
Arsenic (TRC)			<0.001		<0.001
Barium (DIS)					
Barium (TRC)			0.098		0.065
Beryllium (DIS)					
Beryllium (TRC)			<0.0008		<0.0008
Cadmium (DIS)					
Cadmium (TRC)			<0.00003		<0.00003
Chromium (DIS)					
Chromium (TRC)			<0.01		<0.01

Sample Type:	Station (Site)	SW-17	SW-18	SW-2	SW-3	USGS-SC1
Water	Sample Date	2/22/2019	2/22/2019	2/22/2019	2/22/2019	2/22/2019
	Sample Time	11:15:00 AM	1:15:00 PM	12:30:00 PM	11:40:00 AM	12:40:00 PM
	Lab	Hydro	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	z	z	H19020363-004	z	H19020363-005
	Sample Number	BBC-1902-102	BBC-1902-108	BBC-1902-105	BBC-1902-103	BBC-1902-106
	Remarks					

Metals - Trace Constituents Multiple Units					
Cobalt (DIS)					
Cobalt (TRC)		<0.01		<0.01	
Copper (DIS)					
Copper (TRC)		<0.002		<0.002	
Iron (DIS)					
Iron (TRC)		0.12		0.13	
Lead (DIS)					
Lead (TRC)		<0.0003		<0.0003	
Manganese (DIS)					
Manganese (TRC)		0.009		0.008	
Mercury (DIS)					
Mercury (TRC)		<0.005		<0.005	
Molybdenum (DIS)					
Molybdenum (TRC)		<0.002		<0.002	
Nickel (DIS)					
Nickel (TRC)		<0.001		<0.001	
Selenium (DIS)					
Selenium (TRC)		<0.0002		<0.0002	
Silver (DIS)					
Silver (TRC)		<0.0002		<0.0002	
Strontium (DIS)					
Strontium (TRC)		0.128 D		0.144 D	
Thallium (DIS)					
Thallium (TRC)		<0.0002		<0.0002	
Uranium (DIS)					
Uranium (TRC)		0.0004		0.0004	
Zinc (DIS)					
Zinc (TRC)		<0.002		<0.002	

QUALITY CONTROL / QUALITY ASSURANCE
DATA VERIFICATION REPORT

BLACK BUTTE COPPER
WATER RESOURCE MONITORING

MARCH 2019

Prepared by
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MAY 2019

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APPENDIX 2: DATABASE SUMMARY REPORT

GLOSSARY OF TERMS

CCB ..... Continuing Calibration Blank

CCV ..... Continuing Calibration Verification

CLP ..... Contract Laboratory Program

CRDL..... Contract Required Detection Limit

DIé é é é é Deionized Water

FAA ..... Flame Atomic Absorption

GFAA..... Graphite Furnace Atomic Absorption

HGAA ..... Hydride Generation Atomic Absorption

ICB..... Initial Calibration Blank

ICP ..... Inductively Coupled Plasma

ICV ..... Initial Calibration Verification

IDL..... Instrument Detection Limit

LCS ..... Laboratory Control Sample

MSA..... Method of Standard Additions

PB ..... Preparation Blank

PRDL ..... Project Required Detection Limit

QAPP ..... Quality Assurance Project Plan

QC..... Quality Control

RPD..... Relative Percent Difference

RSD..... Relative Standard Deviation

SOW..... Statement of Work

TDS..... Total Dissolved Solids

DATA VALIDATION REPORT

1. INTRODUCTION

This validation applies to 56 samples collected for the Black Butte Tintina surface water and groundwater monitoring program. All sampling occurred in March 2019. All samples were submitted to Energy Laboratories in Helena, Montana and were assigned Laboratory IDs: H19030475, H19030477, H19030548, H19030476 and H19030547. The total number of samples included: 36 groundwater and surface water samples including 3 field duplicates, and 4 field deionized (DI and Rinsate) blanks.

- Validation procedures used are generally consistent with:
  (Check all that apply)
  _X_ EPA CLP National Functional Guidelines for Inorganics Data Review
  _X_ EPA CLP National Functional Guidelines for Organic Data Review
  _X___ Montana Department of Environmental Quality, Data Validation Guidelines for Evaluating Analytical Data, Hydrometrics, September 2010

2. DELIVERABLES

- All laboratory document deliverables were present as specified in the CLP-Statement of Work and/or the project contract
  _X_ Yes
  ___No

- All documentation of field procedures was provided as required
  _X_ Yes
  ___No

3. FIELD QUALITY CONTROL SAMPLES

- Field blanks
  Please note that the highest blank value associated with any particular analyte is the blank value used for the flagging process.
  DI, trip, rinsate, or any other field blanks have been carried out at the proper frequency
  _X_ Yes
  ___No

  Reported results on the field blanks are less than the contract required detection limits (CRDL) or the project required detection limits (PRDL) if project detection limits have been specified
  ____Yes
  _X_ No ï see following table

Date	Parameter	Result (mg/L)	Reporting Limit (mg/L)	# Flags
3/27/19	Nickel (DIS)	0.002	<0.001	6

Flagging: U

- Field duplicates
  Field duplicates have been collected at the proper frequency
  _X_ Yes
  ___No

  Field duplicate relative percent differences (RPDs) were within the required control limits (25 percent or less for water matrix and 50 percent or less for soil matrix)
  _X_ Yes
  ___No

4. LABORATORY PROCEDURES

- Laboratory Case Narrative Notes any non conformance issues with the analytical data
  ___Yes
  ___No
  _X_NA

- Samples were received by the laboratory at the proper temperature
  _X_Yes
  ___No

- Holding times met
  _X_Yes
  ___No

- Consistency with project requirements
  _X_Yes
  ___No

- Sample Conditions met at Check-in
  _X_Yesï see following notes
  ___No
  NOTES: In the Energy Laboratory sample check in for H19030477, H19030548 and H19030547 sample delivery groups it was noted that specific sample bottles contained different times than noted on the chain of custody; the time from the COCs were used for each sample.

- Reporting units appropriate for the associated sample matrix and methods of analysis
  _X_Yes
  ___No

- Project specified methods were used
  _X_Yesï see following list of methods used
  ___No
  NOTES: The following methods were used during analyses: A2540D, A2540C, A2320B, E300.0, A4500-F C, A2340B, E353.2, A4500-N C, E365.1, E200.8, and E200.7.

- Detection Limits met project required detection limits (PRDL)
  _X_Yesï see following notes
  ___No
  NOTES: It should be noted that total dissolved solids and strontium had a reporting limit increases due to sample matrix interference (D). TDS had a limit of 10 mg/l used not the requested 4 mg/l. Strontium had the 0.0003 mg/l reporting limit was used in place of the requested 0.0002 mg/l. In addition, a reporting limit of 0.01 mg/l was used for nitrate + nitrite as n as replacement of the 0.003 mg/l requested.

5. INITIAL OR CONTINUING CALIBRATION VERIFICATION RESULTS

- Initial or Continuing Calibration Verification samples were within acceptable limits
  _X_Yes
  ___No

6. LABORATORY BLANKS

- **PREPARATION/METHOD BLANKS**

  Preparation/Method blanks were prepared and analyzed at the required frequency
  _X_ Yes
  ___ No

  All analytes in the preparation blank were less than the CRDL (or PRDL if a project detection limit has been specified)
  _X_ Yes
  ___ No

7. MATRIX SPIKE /MATRIX SPIKE DUPLICATES (MS/MSD)

- Matrix spike samples were analyzed at the proper frequency
  _X_ Yes
  ____ No

- Matrix spike recoveries were within control limits
  ____ Yes
  _X_ No ï see following table

QC Sample ID	Parameter	% REC	Lab Flag	Lab Advisory Limits (% REC)
H19030356-001CMS3	Selenium	36	S	70-130
H19030546-005DMS	Total Phosphorus	112	S	90-110

S ï Spike recovery outside of recovery limits

- Matrix spike RPDôs were within control limits
  _X_ Yes
  ____ No

- Matrix spike duplicate samples were analyzed at the proper frequency
  _X_ Yes
  ____ No

- Matrix spike duplicate RPDôs were within control limits
  _X_ Yes
  ____ No

- Matrix spike duplicate recoveries were within the laboratory specified control limits.
  ____ Yes
  _X_ No ï see following table

QC Sample ID	Parameter	% REC	Lab Flag	Lab Advisory Limits (% REC)
H19030356-001CMS3D	Selenium	38	S	70-130
H19030466-001AMSD	Nitrate + Nitrite as N	89	S	90-110
H19030546-005DMSD	Total Phosphorus	112	S	90-110

S ï Spike recovery outside of recovery limits

8. LABORATORY CONTROL SAMPLES

- LCS Samples

Laboratory Control Samples used the correct matrix and concentrations
___Yes
___No
_X_NA

Laboratory Control Samples were prepared and analyzed at the required frequency
___Yes
___No
_X_NA

All analytes in the laboratory control samples were less than the control limits specified
_X_Yes
____No

9. DATA QUALITY OBJECTIVES

- Project data quality objectives (DQOs) met

_X_Yes
___No

Accuracy

Accuracy for this project is the degree of agreement between an analytical measurement and a reference accepted as a true value. The accuracy of a measurement system can be affected by errors introduced by field contamination, sample preservation, sample handling, sample preparation and analytical techniques. Analysis of MS/MSD samples, laboratory control spikes (LCS) or blank spikes, surrogate standards and method blanks are typically used to calculate the percent recovery for evaluating accuracy. Accuracy for this sampling event was 99 percent.

Precision

Precision for this project is the degree of mutual agreement between individual measurements of the same property under similar conditions. Combined field and laboratory precision is evaluated by collecting and analyzing field duplicate and then calculating the variance between the samples, typically as a relative percent difference (RPD). Laboratory analytical precision is evaluated by analyzing matrix spike/matrix spike duplicate samples and using the results to calculate an RPD. The combined precision was 99 percent for this sampling event for both laboratory and field.

Representativeness

Representativeness for this project is the degree to which sample data accurately and precisely represent the characteristics of a population, and variations in a parameter at a sampling point or an environmental condition that they are intended to represent. Typically representative data will be obtained through careful selection of sampling locations and analytical parameters; proper collection and handling of samples and through use and consistent application of established field and laboratory procedures. Evaluation of field and laboratory blank samples for presence of contaminants can be useful in evaluating representativeness of sample results. Both laboratory and field representativeness for this sampling event was 100 percent.

Completeness

The target completeness for this project is the percent of the measurements valid (not rejected). Valid data are obtained when samples are collected and analyzed in accordance with quality

control procedures outlined in the SAP, and when none of the QC criteria that affect data usability are exceeded. Once data validation is complete the number of useable sample results is divided by the total number of sample results planned for the investigation to determine the percent completeness. Completeness for this sampling event was 100 percent.

Comparability

Comparability is the expression of the confidence with which one data set can be compared with another. Comparability of data is achieved by consistently following standard field and laboratory procedures and by using standard measurement units in reporting analytical data. This criterion was met.

REFERENCES

Montana Department of Environmental Quality, Data Validation Guidelines for Evaluating Analytical Data (Updated August 5, 2010)

EPA, 2017a. National Functional Guidelines for Organic Superfund Methods Data Review. EPA-540-R-2017-002. Office of Superfund Remediation and Technology Innovation. January 2017.

EPA, 2017b. National Functional Guidelines for Inorganic Superfund Methods Data Review. EPA-540-R-2017-001. Office of Superfund Remediation and Technology Innovation. January 2017.

Hem, J.D., 1992. Study and Interpretation of the Chemical Characteristics of Natural Water, 3rd edition. US Geological Survey Water Supply Paper 2254.

APPENDIX 1

TABLES

TABLE 1.

DATA VALIDATION CODES AND DEFINITIONS

CODE	DEFINITION
J	-The associated numerical value is an estimated quantity because quality control criteria were not met.
U	- Blank contamination. Indicates possible high bias and / or false positive. The associated value is an estimate.
R	- Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis is necessary for verification.
A	- Anomalous data. No apparent explanation for discrepancy in data. (Not an EPA code.)

Table 2. Summary of Flagged Data

StationName	Sample Date	Field Sample Id	Lab Name	Lab Sample Id	Parameter Name	Sample Result	Reporting Units	Validation Flag	Exceedance Type
MW-17	3/27/2019 9:30	BBC-1903-213	Energy Labs	H19030476-014	Nickel (DIS)	<0.001	mg/L	U	Blank Exceedance
MW-20	3/27/2019 10:30	BBC-1903-214	Energy Labs	H19030476-015	Nickel (DIS)	<0.001	mg/L	U	Blank Exceedance
MW-4A	3/27/2019 16:50	BBC-1903-216	Energy Labs	H19030547-002	Nickel (DIS)	<0.001	mg/L	U	Blank Exceedance
MW-4B	3/27/2019 16:15	BBC-1903-215	Energy Labs	H19030547-001	Nickel (DIS)	<0.001	mg/L	U	Blank Exceedance
SP-12	3/27/2019 10:10	BBC-1903-122	Energy Labs	H19030475-007	Nickel (DIS)	<0.001	mg/L	U	Blank Exceedance
SP-7	3/27/2019 10:50	BBC-1903-123	Energy Labs	H19030475-008	Nickel (DIS)	<0.001	mg/L	U	Blank Exceedance

Black Butte Mine Data Comparison Summary

Report Date: May 8, 2019

SAMPLE NO BBC-1903-111	LAB NO: H19030475-004	STATION:DS-1

03/26/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	10.03	03/25/15-03/26/19	O	31	31	8.15	13.4	9.67	9.5	1.26	0.28	
pH Fld (s.u.)	8.17	03/25/15-03/26/19	O	30	30	7.36	8.56	7.78	7.78	0.29	1.33	
SC Fld (umhos/cm)	367	03/25/15-03/26/19	O	31	31	337.0	698.7	418.8	418	52.3	1.0	
Flow (Gallons Per Min)	2.6	03/25/15-03/26/19	O	27	27	0.1	62.3	4.9	5.9	11.9	0.2	
Water Temp (Deg C)	2.3	03/25/15-03/26/19	O	31	31	0.5	18.3	5.2	6.6	3.7	0.8	
TDS (mg/L)	203	03/25/15-03/26/19	O	31	31	203.0	245.0	229.8	231	10.5	2.6	L
TSS (mg/L)	20	03/25/15-03/26/19	O	31	11	< 10	1130.0					
Tot Alk (mg/L)	190	03/25/15-03/26/19	O	31	31	180.0	220.0	214.0	220	9.2	2.6	
Ca (mg/L)	51	03/25/15-03/26/19	O	31	31	46.0	62.0	56.5	57	2.9	1.9	
Chloride (mg/L)	< 1	03/25/15-03/26/19	O	31	0	< 1	< 1					
F (mg/L)	0.1	03/25/15-03/26/19	O	31	29	0.1	0.1	0.1	0.1	0	0.0	H
Tot Hard (mg/L)	205	03/25/15-03/26/19	O	31	31	185.0	249.0	227.8	229	12.2	1.9	
Mg (mg/L)	19	03/25/15-03/26/19	O	31	31	17.0	23.0	21.1	21	1.3	1.6	
K (mg/L)	< 1	03/25/15-03/26/19	O	31	0	< 1	< 1					
Na (mg/L)	1	03/25/15-03/26/19	O	31	31	1.0	2.0	1.8	2	0.4	2.1	L
SO4 (mg/L)	15	03/25/15-03/26/19	O	31	31	11.0	18.0	14.7	15	1.7	0.2	
Nitrate + (mg/L)	0.12	03/25/15-03/26/19	O	31	31	0.03	0.26	0.17	0.19	0.06	0.89	
Al (DIS) (mg/L)	< 0.009	03/25/15-03/26/19	O	31	1	< 0.009	0.024					
Sb (DIS) (mg/L)	< 0.0005	03/25/15-03/26/19	O	30	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	03/25/15-03/26/19	O	30	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.059	03/25/15-03/26/19	O	30	30	0.041	0.074	0.051	0.049	0.007	1.119	
Be (DIS) (mg/L)	< 0.0008	03/25/15-03/26/19	O	30	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	03/25/15-03/26/19	O	30	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	03/25/15-03/26/19	O	30	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	03/25/15-03/26/19	O	30	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	03/25/15-03/26/19	O	30	1	< 0.002	0.007					
Fe (DIS) (mg/L)	< 0.02	03/25/15-03/26/19	O	30	2	< 0.02	0.06					
Pb (DIS) (mg/L)	< 0.0003	03/25/15-03/26/19	O	30	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	03/25/15-03/26/19	O	30	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	03/25/15-03/26/19	O	29	0	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	03/25/15-03/26/19	O	30	0	< 0.002	< 0 .002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Ni (DIS) (mg/L)	< 0.001	03/25/15-03/26/19	O	30	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	0.0002	03/25/15-03/26/19	O	30	9	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	03/25/15-03/26/19	O	30	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.104	03/25/15-03/26/19	O	30	30	0.085	0.119	0.107	0.106	0.007	0.396	
Tl (DIS) (mg/L)	< 0.0002	03/25/15-03/26/19	O	30	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0007	03/25/15-03/26/19	O	30	2	0.0007	< .008					
Zn (DIS) (mg/L)	< 0.002	03/25/15-03/26/19	O	30	23	< 0.002	0.03	0.006	0.007	0.008	0.506	L

SAMPLE NO BBC-1903-206 LAB NO: H19030476-007 STATION:MW-1A

03/26/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	7.41	08/26/11-03/26/19	O	31	31	2.29	9.82	6.4	7.34	1.97	0.51	
DO (mg/L)	8.94	08/26/11-03/26/19	O	30	30	5.35	17.56	9.83	9.62	2.35	0.38	
EH (Millivolts)	278.03	03/21/18-03/26/19	O	5	5	260.77	305.7	283.23	280.7	16.86	0.31	
pH Fld (s.u.)	7.4	08/26/11-03/26/19	O	31	31	6.6	7.7	7.3	7.3	0.2	0.7	
SC Fld (umhos/cm)	337	08/26/11-03/26/19	O	31	31	311.0	356.0	340.6	342.6	10.1	0.4	
Water Temp (Deg C)	6.9	08/26/11-03/26/19	O	31	31	5.9	7.8	6.9	6.9	0.4	0.1	
TDS (mg/L)	194	08/26/11-03/26/19	O	31	31	176.0	209.0	191.9	194	7.6	0.3	
TSS (mg/L)	45	03/21/13-03/26/19	O	24	23	10.0	1380.0	75.1	64	341	0.1	
Tot Alk (mg/L)	170	08/26/11-03/26/19	O	31	31	160.0	190.0	173.1	170	6	0.5	
Ca (mg/L)	44	08/26/11-03/26/19	O	31	31	38.0	45.0	42.1	42	1.8	1.1	
Chloride (mg/L)	2	08/26/11-03/26/19	O	31	29	1.0	2.0	1.1	1	0.3	3.0	H
F (mg/L)	0.2	08/26/11-03/26/19	O	31	31	0.2	0.3	0.2	0.2	0	0.0	L
Tot Hard (mg/L)	187	08/26/11-03/26/19	O	31	31	157.0	191.0	178.6	179	8.5	1.0	
Mg (mg/L)	19	08/26/11-03/26/19	O	31	31	15.0	21.0	17.9	18	1.1	1.0	
K (mg/L)	1	08/26/11-03/26/19	O	31	24	1.0	6.0	1.1	1	0.9	0.1	L
Na (mg/L)	2	08/26/11-03/26/19	O	31	31	2.0	11.0	2.7	2	2.5	0.3	L
SO4 (mg/L)	14	08/26/11-03/26/19	O	31	31	8.0	14.0	10.8	12	1.9	1.7	H
Nitrate + (mg/L)	0.42	08/26/11-03/26/19	O	31	31	0.18	0.53	0.42	0.44	0.06	0.02	
Al (DIS) (mg/L)	0.022	08/26/11-03/26/19	O	31	29	< 0.009	33.8	0.104	0.057	6.037	0.014	
Sb (DIS) (mg/L)	< 0.0005	08/26/11-03/26/19	O	31	1	< 0.0005	< .003					
As (DIS) (mg/L)	< 0.001	08/26/11-03/26/19	O	31	1	< 0.001	0.015					
Ba (DIS) (mg/L)	0.181	08/26/11-03/26/19	O	31	31	0.125	1.12	0.187	0.166	0.209	0.031	
Be (DIS) (mg/L)	< 0.0008	08/26/11-03/26/19	O	31	1	< 0.0008	< .001					
Cd (DIS) (mg/L)	< 0	08/26/11-03/26/19	O	31	4	< 0	0.0001					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Cr (DIS) (mg/L)	< 0.01	08/26/11-03/26/19	O	31	2	< 0	< .01					
Co (DIS) (mg/L)	< 0.01	08/26/11-03/26/19	O	31	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	0.006	08/26/11-03/26/19	O	31	31	0.002	0.129	0.008	0.007	0.028	0.059	
Fe (DIS) (mg/L)	< 0.02	08/26/11-03/26/19	O	31	22	< 0.02	26.5	0.07	0.04	4.74	0.01	L
Pb (DIS) (mg/L)	0.0003	08/26/11-03/26/19	O	31	23	< 0.0003	0.157	0.001	0.0006	0.0297	0.0248	L
Mn (DIS) (mg/L)	< 0.005	08/26/11-03/26/19	O	31	6	< 0.001	0.096					
Hg (DIS) (ug/L)	< 0.005	08/26/11-03/26/19	O	31	3	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	08/26/11-03/26/19	O	31	0	< 0.001	< .005					
Ni (DIS) (mg/L)	< 0.001	08/26/11-03/26/19	O	31	2	< 0.001	< .01					
Se (DIS) (mg/L)	0.0002	08/26/11-03/26/19	O	31	10	< 0.0002	< .001					
Ag (DIS) (mg/L)	< 0.0002	08/26/11-03/26/19	O	31	0	< 0.0002	< .0005					
Sr (DIS) (mg/L)	0.0995	08/26/11-03/26/19	O	31	31	0.0949	0.12	0.102	0.1	0.0062	0.4077	
Tl (DIS) (mg/L)	0.0009	08/26/11-03/26/19	O	31	31	0.0003	0.0048	0.0008	0.0008	0.0008	0.1301	
U (DIS) (mg/L)	0.001	08/26/11-03/26/19	O	31	9	0.001	< .008					
Zn (DIS) (mg/L)	< 0.002	08/26/11-03/26/19	O	31	10	< 0.002	0.04					

SAMPLE NO BBC-1903-205 LAB NO: H19030476-006

STATION:MW-1B

03/26/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	24.18	08/26/11-03/26/19	O	30	30	20.93	24.85	22.87	22.96	0.97	1.35	
DO (mg/L)	0.07	08/26/11-03/26/19	O	30	30	0.01	2.81	0.25	0.25	0.54	0.34	
EH (Millivolts)	193.87	03/21/18-03/26/19	O	5	5	193.87	238.21	212.83	210.66	16.17	1.17	L
pH Fld (s.u.)	6.42	08/26/11-03/26/19	O	31	31	6.02	6.51	6.29	6.32	0.13	1.01	
SC Fld (umhos/cm)	627.5	08/26/11-03/26/19	O	31	31	556.0	661.0	603.5	604.5	23.8	1.0	
Water Temp (Deg C)	7.8	08/26/11-03/26/19	O	31	31	6.5	8.8	7.5	7.6	0.6	0.4	
TDS (mg/L)	435	08/26/11-03/26/19	O	31	31	338.0	436.0	410.4	411	25	1.0	
TSS (mg/L)	37	03/21/13-03/26/19	O	24	14	< 10	402.0	22.4	18	78	0.2	
Tot Alk (mg/L)	110	08/26/11-03/26/19	O	31	31	49.0	110.0	82.8	84	12.4	2.2	H
Ca (mg/L)	68	08/26/11-03/26/19	O	31	31	51.0	68.0	58.5	59	3.1	3.1	*H
Chloride (mg/L)	1	08/26/11-03/26/19	O	31	27	< 1	3.0	1.1	1	0.4	0.3	L
F (mg/L)	0.2	08/26/11-03/26/19	O	31	31	0.2	0.3	0.2	0.2	0	0.0	L
Tot Hard (mg/L)	316	08/26/11-03/26/19	O	31	31	234.0	316.0	271.6	275	15.4	2.9	H
Mg (mg/L)	36	08/26/11-03/26/19	O	31	31	26.0	36.0	30.6	31	1.9	2.9	H
K (mg/L)	3	08/26/11-03/26/19	O	31	31	3.0	3.0	3.0	3	0	0.0	H
Na (mg/L)	3	08/26/11-03/26/19	O	31	31	3.0	7.0	3.7	4	1	0.7	L

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

SO4 (mg/L)	226	08/26/11-03/26/19	O	31	31	200.0	247.0	222.1	222	11.6	0.3	
Nitrate + (mg/L)	0.04	08/26/11-03/26/19	O	31	18	< 0.01	0.6	0.03	0.03	0.1	0.12	
Al (DIS) (mg/L)	0.017	08/26/11-03/26/19	O	31	11	< 0.009	0.059					
Sb (DIS) (mg/L)	0.0008	08/26/11-03/26/19	O	31	22	< 0.0005	< .003	0.0009	0.0007	0.0009	0.063	
As (DIS) (mg/L)	0.07	08/26/11-03/26/19	O	31	31	0.05	0.07	0.06	0.06	0	0.0	
Ba (DIS) (mg/L)	0.011	08/26/11-03/26/19	O	31	31	0.011	0.023	0.014	0.013	0.003	0.838	L
Be (DIS) (mg/L)	< 0.0008	08/26/11-03/26/19	O	31	0	< 0.0008	< .001					
Cd (DIS) (mg/L)	< 0	08/26/11-03/26/19	O	31	0	< 0	< .00008					
Cr (DIS) (mg/L)	< 0.01	08/26/11-03/26/19	O	31	0	< 0	< .01					
Co (DIS) (mg/L)	0.02	08/26/11-03/26/19	O	31	31	0.02	0.03	0.03	0.03	0	0.0	L
Cu (DIS) (mg/L)	< 0.002	08/26/11-03/26/19	O	31	1	< 0.001	0.005					
Fe (DIS) (mg/L)	20	08/26/11-03/26/19	O	31	31	17.7	27.1	21.3	20.4	2.5	0.5	
Pb (DIS) (mg/L)	< 0.0003	08/26/11-03/26/19	O	31	8	< 0.0003	0.0026					
Mn (DIS) (mg/L)	0.075	08/26/11-03/26/19	O	31	31	0.075	0.122	0.085	0.084	0.01	1.033	L
Hg (DIS) (ug/L)	< 0.005	08/26/11-03/26/19	O	31	2	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	08/26/11-03/26/19	O	31	0	< 0.001	< .005					
Ni (DIS) (mg/L)	0.011	08/26/11-03/26/19	O	31	31	0.01	0.012	0.011	0.011	0.001	0.266	
Se (DIS) (mg/L)	< 0.0002	08/26/11-03/26/19	O	31	0	< 0.0002	< .001					
Ag (DIS) (mg/L)	< 0.0002	08/26/11-03/26/19	O	31	0	< 0.0002	< .0005					
Sr (DIS) (mg/L)	1.83	08/26/11-03/26/19	O	31	31	1.4	1.83	1.62	1.61	0.09	2.36	H
Tl (DIS) (mg/L)	0.0125	08/26/11-03/26/19	O	31	31	0.0104	0.0154	0.0125	0.0125	0.001	0.0485	
U (DIS) (mg/L)	< 0.0002	08/26/11-03/26/19	O	31	0	< 0.0002	< .008					
Zn (DIS) (mg/L)	0.012	08/26/11-03/26/19	O	31	31	0.012	0.033	0.016	0.015	0.005	0.835	L

SAMPLE NO BBC-1903-203 LAB NO: H19030476-004 STATION:MW-2A

PARAMETER	03/26/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	42.02	11/30/11-03/26/19	O	29	29	40.81	43.18	42.18	42.2	0.39	0.42	
DO (mg/L)	7.6	11/30/11-03/26/19	O	29	29	4.3	13.0	7.2	7.5	1.8	0.2	
EH (Millivolts)	298.68	03/20/18-03/26/19	O	5	5	255.99	298.68	276.58	278.55	17.78	1.24	H
pH Fld (s.u.)	7.57	11/30/11-03/26/19	O	29	29	7.07	7.57	7.3	7.3	0.13	2.05	H
SC Fld (umhos/cm)	388	11/30/11-03/26/19	O	29	29	353.0	412.3	381.5	382	12.1	0.5	
Water Temp (Deg C)	7.2	11/30/11-03/26/19	O	29	29	6.3	8.1	7.1	7.2	0.5	0.3	
TDS (mg/L)	208	11/30/11-03/26/19	O	29	29	191.0	279.0	209.9	209	14.3	0.1	
TSS (mg/L)	< 10	03/21/13-03/26/19	O	23	6	5.0	14.0					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Tot Alk (mg/L)	190	11/30/11-03/26/19	O	29	29	180.0	220.0	191.5	190	8.7	0.2	
Ca (mg/L)	46	11/30/11-03/26/19	O	29	29	40.0	56.0	43.5	43	2.6	1.0	
Chloride (mg/L)	1	11/30/11-03/26/19	O	29	28	1.0	2.0	1.3	1	0.5	0.5	L
F (mg/L)	0.3	11/30/11-03/26/19	O	29	29	0.3	0.4	0.3	0.3	0.1	0.4	L
Tot Hard (mg/L)	215	11/30/11-03/26/19	O	29	29	190.0	268.0	204.9	202	13.1	0.8	
Mg (mg/L)	24	11/30/11-03/26/19	O	29	29	22.0	31.0	23.3	23	1.6	0.4	
K (mg/L)	1	11/30/11-03/26/19	O	29	29	1.0	2.0	1.0	1	0.2	0.1	L
Na (mg/L)	3	11/30/11-03/26/19	O	29	29	2.0	3.0	2.6	3	0.5	0.9	H
SO4 (mg/L)	22	11/30/11-03/26/19	O	29	29	15.0	51.0	19.4	20	6.3	0.4	
Nitrate + (mg/L)	0.2	11/30/11-03/26/19	O	29	28	< 0	0.2	0.2	0.2	0	0.0	
Al (DIS) (mg/L)	< 0.009	11/30/11-03/26/19	O	29	1	< 0.009	0.05					
Sb (DIS) (mg/L)	< 0.0005	11/30/11-03/26/19	O	29	0	< 0.0005	< .003					
As (DIS) (mg/L)	< 0.001	11/30/11-03/26/19	O	29	2	< 0.001	0.003					
Ba (DIS) (mg/L)	0.084	11/30/11-03/26/19	O	29	29	0.04	0.097	0.081	0.083	0.009	0.343	
Be (DIS) (mg/L)	< 0.0008	11/30/11-03/26/19	O	29	0	< 0.0008	< .001					
Cd (DIS) (mg/L)	< 0	11/30/11-03/26/19	O	29	0	< 0	< .00008					
Cr (DIS) (mg/L)	< 0.01	11/30/11-03/26/19	O	29	0	< 0	< .01					
Co (DIS) (mg/L)	< 0.01	11/30/11-03/26/19	O	29	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	11/30/11-03/26/19	O	29	1	< 0.001	< .002					
Fe (DIS) (mg/L)	< 0.02	11/30/11-03/26/19	O	29	4	< 0.02	0.18					
Pb (DIS) (mg/L)	< 0.0003	11/30/11-03/26/19	O	29	2	< 0.0003	0.0009					
Mn (DIS) (mg/L)	< 0.005	11/30/11-03/26/19	O	29	5	< 0.005	0.235					
Hg (DIS) (ug/L)	< 0.005	11/30/11-03/26/19	O	29	2	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	11/30/11-03/26/19	O	29	0	< 0.002	< .005					
Ni (DIS) (mg/L)	< 0.001	11/30/11-03/26/19	O	29	0	< 0.001	< .01					
Se (DIS) (mg/L)	0.0013	11/30/11-03/26/19	O	29	23	< 0.0002	0.0065	0.0009	0.001	0.0011	0.3819	
Ag (DIS) (mg/L)	< 0.0002	11/30/11-03/26/19	O	29	0	< 0.0002	< .0005					
Sr (DIS) (mg/L)	0.0925	11/30/11-03/26/19	O	29	25	0.0836	0.108	0.0928	0.0915	0.0052	0.0571	
Tl (DIS) (mg/L)	0.0002	11/30/11-03/26/19	O	29	27	0.0002	0.0037	0.0003	0.0003	0.0007	0.1517	L
U (DIS) (mg/L)	0.0005	11/30/11-03/26/19	O	29	7	0.0004	< .008					
Zn (DIS) (mg/L)	< 0.002	11/30/11-03/26/19	O	29	0	< 0.002	< .01					

SAMPLE NO BBC-1903-204 LAB NO: H19030476-005 STATION:MW-2B

PARAMETER	03/26/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Depth to W (Feet)	41.32	11/30/11-03/26/19	O	29	29	40.77	43.14	42.0	42.04	0.43	1.57	
DO (mg/L)	0.2	11/30/11-03/26/19	O	29	29	0.1	10.3	0.4	0.4	1.8	0.1	
EH (Millivolts)	253.38	03/20/18-03/26/19	O	5	5	230.66	270.57	253.19	253.38	18.8	0.01	
pH Fld (s.u.)	7.34	11/30/11-03/26/19	O	29	29	6.98	7.51	7.26	7.29	0.11	0.76	
SC Fld (umhos/cm)	432	11/30/11-03/26/19	O	29	29	192.0	525.0	445.6	455	56.3	0.2	
Water Temp (Deg C)	7.2	11/30/11-03/26/19	O	29	29	3.0	7.9	6.9	7.2	0.9	0.4	
TDS (mg/L)	237	11/30/11-03/26/19	O	29	29	208.0	292.0	254.8	251	17.3	1.0	
TSS (mg/L)	< 10	03/21/13-03/26/19	O	23	1	< 4	17.0					
Tot Alk (mg/L)	200	11/30/11-03/26/19	O	29	29	180.0	260.0	215.0	210	15	1.0	
Ca (mg/L)	52	11/30/11-03/26/19	O	29	29	43.0	58.0	52.6	53	3	0.2	
Chloride (mg/L)	1	11/30/11-03/26/19	O	29	22	1.0	2.0	1.1	1	0.4	0.3	L
F (mg/L)	0.3	11/30/11-03/26/19	O	29	29	0.3	0.4	0.4	0.4	0	0.0	L
Tot Hard (mg/L)	244	11/30/11-03/26/19	O	29	29	202.0	280.0	250.8	252	15.3	0.4	
Mg (mg/L)	28	11/30/11-03/26/19	O	29	29	23.0	33.0	29.0	29	2	0.5	
K (mg/L)	1	11/30/11-03/26/19	O	29	29	1.0	2.0	1.7	2	0.4	1.6	L
Na (mg/L)	3	11/30/11-03/26/19	O	29	29	2.0	3.0	3.0	3	0.2	0.2	H
SO4 (mg/L)	37	11/30/11-03/26/19	O	29	29	23.0	51.0	39.5	39	5.1	0.5	
Nitrate + (mg/L)	< 0.01	11/30/11-03/26/19	O	29	1	< 0.01	< .5					
Al (DIS) (mg/L)	< 0.009	11/30/11-03/26/19	O	29	1	< 0.009	< .03					
Sb (DIS) (mg/L)	< 0.0005	11/30/11-03/26/19	O	29	0	< 0.0005	< .003					
As (DIS) (mg/L)	0.003	11/30/11-03/26/19	O	29	27	< 0.001	0.018	0.003	0.003	0.003	0.124	
Ba (DIS) (mg/L)	0.043	11/30/11-03/26/19	O	29	29	0.028	0.082	0.042	0.042	0.008	0.126	
Be (DIS) (mg/L)	< 0.0008	11/30/11-03/26/19	O	29	0	< 0.0008	< .001					
Cd (DIS) (mg/L)	< 0	11/30/11-03/26/19	O	29	0	< 0	< .00008					
Cr (DIS) (mg/L)	< 0.01	11/30/11-03/26/19	O	29	0	< 0	< .01					
Co (DIS) (mg/L)	< 0.01	11/30/11-03/26/19	O	29	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	11/30/11-03/26/19	O	29	0	< 0.001	< .002					
Fe (DIS) (mg/L)	0.02	11/30/11-03/26/19	O	29	29	0.02	1.08	0.06	0.04	0.19	0.21	L
Pb (DIS) (mg/L)	< 0.0003	11/30/11-03/26/19	O	29	0	< 0.0003	< .0005					
Mn (DIS) (mg/L)	0.007	11/30/11-03/26/19	O	29	28	< 0.005	0.026	0.011	0.011	0.005	0.779	
Hg (DIS) (ug/L)	< 0.005	11/30/11-03/26/19	O	29	1	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	11/30/11-03/26/19	O	29	0	< 0.002	< .005					
Ni (DIS) (mg/L)	< 0.001	11/30/11-03/26/19	O	29	0	< 0.001	< .01					
Se (DIS) (mg/L)	0.0066	11/30/11-03/26/19	O	29	24	0.0002	0.0066	0.0014	0.001	0.0018	2.9065	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Ag (DIS) (mg/L)	< 0.0002	11/30/11-03/26/19	O	29	0	< 0.0002	< .0005				
Sr (DIS) (mg/L)	0.0912	11/30/11-03/26/19	O	29	28	0.0903	0.106	0.0981	0.1	0.0043	1.6059
Tl (DIS) (mg/L)	0.0038	11/30/11-03/26/19	O	29	29	0.0003	0.004	0.0032	0.0036	0.0007	0.8137
U (DIS) (mg/L)	0.0023	11/30/11-03/26/19	O	29	7	0.002	< .008				
Zn (DIS) (mg/L)	< 0.002	11/30/11-03/26/19	O	29	0	< 0.002	< .01				

SAMPLE NO BBC-1903-200 LAB NO: H19030476-001 STATION:MW-3

03/25/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	41.38	11/30/11-03/25/19	O	29	29	26.23	46.13	38.42	41.11	5.55	0.53	
DO (mg/L)	0.11	11/30/11-03/25/19	O	29	29	0.0	2.09	0.15	0.22	0.43	0.09	
EH (Millivolts)	195.57	03/19/18-03/25/19	O	5	5	152.22	222.03	185.65	192.54	26.12	0.38	
pH Fld (s.u.)	7.19	11/30/11-03/25/19	O	29	29	6.77	7.31	7.08	7.08	0.11	0.96	
SC Fld (umhos/cm)	782	11/30/11-03/25/19	O	29	29	727.0	883.0	823.6	830	37.3	1.1	
Water Temp (Deg C)	9	11/30/11-03/25/19	O	29	29	8.1	10.3	9.3	9.4	0.6	0.5	
TDS (mg/L)	521	11/30/11-03/25/19	O	29	29	521.0	607.0	568.3	571	25.9	1.8	L
TSS (mg/L)	< 10	06/03/13-03/25/19	O	23	0	< 4	< 10					
Tot Alk (mg/L)	220	11/30/11-03/25/19	O	29	29	210.0	230.0	216.8	220	5.3	0.6	
Ca (mg/L)	77	11/30/11-03/25/19	O	29	29	67.0	124.0	81.0	80	9.7	0.4	
Chloride (mg/L)	1	11/30/11-03/25/19	O	29	29	1.0	2.0	1.2	1	0.4	0.4	L
F (mg/L)	0.7	11/30/11-03/25/19	O	29	29	0.6	0.8	0.7	0.8	0.1	0.5	
Tot Hard (mg/L)	406	11/30/11-03/25/19	O	29	29	361.0	523.0	419.1	422	31.1	0.4	
Mg (mg/L)	52	11/30/11-03/25/19	O	29	29	47.0	58.0	52.8	53	2.9	0.3	
K (mg/L)	3	11/30/11-03/25/19	O	29	29	3.0	4.0	3.2	3	0.4	0.5	L
Na (mg/L)	16	11/30/11-03/25/19	O	29	29	14.0	18.0	15.9	16	0.9	0.1	
SO4 (mg/L)	222	11/30/11-03/25/19	O	29	29	213.0	280.0	249.1	258	23.1	1.2	
Nitrate + (mg/L)	< 0.01	11/30/11-03/25/19	O	29	3	< 0.01	0.02					
Al (DIS) (mg/L)	< 0.009	11/30/11-03/25/19	O	29	0	< 0.009	< .03					
Sb (DIS) (mg/L)	< 0.0005	11/30/11-03/25/19	O	29	0	< 0.0005	< .003					
As (DIS) (mg/L)	0.071	11/30/11-03/25/19	O	29	29	0.062	0.08	0.068	0.068	0.004	0.703	
Ba (DIS) (mg/L)	0.011	11/30/11-03/25/19	O	29	29	0.01	0.014	0.011	0.011	0.001	0.134	
Be (DIS) (mg/L)	< 0.0008	11/30/11-03/25/19	O	29	0	< 0.0008	< .001					
Cd (DIS) (mg/L)	< 0	11/30/11-03/25/19	O	29	0	< 0	< .00008					
Cr (DIS) (mg/L)	< 0.01	11/30/11-03/25/19	O	29	0	< 0	< .01					
Co (DIS) (mg/L)	< 0.01	11/30/11-03/25/19	O	29	0	< 0.01	< 0 .01					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Cu (DIS) (mg/L)	< 0.002	11/30/11-03/25/19	O	29	0	< 0.001	< .002					
Fe (DIS) (mg/L)	1.02	11/30/11-03/25/19	O	29	29	1.0	1.23	1.09	1.05	0.08	0.93	
Pb (DIS) (mg/L)	< 0.0003	11/30/11-03/25/19	O	29	0	< 0.0003	< .0005					
Mn (DIS) (mg/L)	0.016	11/30/11-03/25/19	O	29	29	0.016	0.035	0.023	0.022	0.005	1.385	L
Hg (DIS) (ug/L)	< 0.005	11/30/11-03/25/19	O	29	1	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	11/30/11-03/25/19	O	29	1	0.001	< .005					
Ni (DIS) (mg/L)	< 0.001	11/30/11-03/25/19	O	29	8	< 0.001	< .01					
Se (DIS) (mg/L)	< 0.0002	11/30/11-03/25/19	O	29	0	< 0.0002	< .001					
Ag (DIS) (mg/L)	< 0.0002	11/30/11-03/25/19	O	29	0	< 0.0002	< .0005					
Sr (DIS) (mg/L)	13.6	11/30/11-03/25/19	O	29	29	12.6	16.2	14.1	14	0.9	0.5	
Tl (DIS) (mg/L)	0.0004	11/30/11-03/25/19	O	29	29	0.0003	0.0006	0.0004	0.0004	0.0001	0.0457	
U (DIS) (mg/L)	0.0011	11/30/11-03/25/19	O	29	8	0.001	< .008					
Zn (DIS) (mg/L)	< 0.002	11/30/11-03/25/19	O	29	2	< 0.002	< .01					

SAMPLE NO BBC-1903-216 LAB NO: H19030547-002

STATION:MW-4A

03/27/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	4.9	05/31/12-03/27/19	O	27	27	3.4	6.0	4.8	4.9	0.6	0.1	
DO (mg/L)	0.24	05/31/12-03/27/19	O	27	26	< 0.01	3.57	0.45	0.6	0.87	0.24	
EH (Millivolts)	298.07	03/21/18-03/27/19	O	5	5	-380.47	298.07	12.83	230.31	38.76	7.36	*H
SC Fld (umhos/cm)	496	05/31/12-03/27/19	O	27	27	481.0	551.0	510.0	511	18.7	0.7	
Water Temp (Deg C)	4.3	05/31/12-03/27/19	O	27	27	4.3	8.8	6.1	6.8	1.5	1.2	L
TDS (mg/L)	267	05/31/12-03/27/19	O	27	27	267.0	311.0	286.6	285	10.8	1.8	L
TSS (mg/L)	< 10	03/21/13-03/27/19	O	23	1	< 4	23.0					
Tot Alk (mg/L)	250	05/31/12-03/27/19	O	27	27	250.0	290.0	266.8	270	11.2	1.5	L
Ca (mg/L)	71	05/31/12-03/27/19	O	27	27	70.0	80.0	76.2	76	2.8	1.8	
Chloride (mg/L)	3	05/31/12-03/27/19	O	27	27	2.0	4.0	2.5	2.6	0.6	0.9	
F (mg/L)	0.1	05/31/12-03/27/19	O	27	27	0.1	0.2	0.1	0.1	0.1	0.3	L
Tot Hard (mg/L)	258	05/31/12-03/27/19	O	27	27	253.0	292.0	276.6	279	10.2	1.8	
Mg (mg/L)	20	05/31/12-03/27/19	O	27	27	19.0	23.0	21.0	21	0.9	1.1	
K (mg/L)	1	05/31/12-03/27/19	O	27	27	1.0	2.0	1.3	1	0.5	0.5	L
Na (mg/L)	3	05/31/12-03/27/19	O	27	27	2.0	3.0	2.9	3	0.3	0.4	H
SO4 (mg/L)	15	05/31/12-03/27/19	O	27	27	8.0	21.0	13.7	13	3.2	0.4	
Nitrate + (mg/L)	< 0.01	05/31/12-03/27/19	O	27	2	< 0.01	0.02					
Al (DIS) (mg/L)	< 0.009	05/31/12-03/27/19	O	27	3	< 0.009	0.087					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Sb (DIS) (mg/L)	< 0.0005	05/31/12-03/27/19	O	27	0	< 0.0005	< .003					
As (DIS) (mg/L)	< 0.001	05/31/12-03/27/19	O	27	0	< 0.001	< .003					
Ba (DIS) (mg/L)	0.175	05/31/12-03/27/19	O	27	27	0.17	0.203	0.184	0.185	0.007	1.239	
Be (DIS) (mg/L)	< 0.0008	05/31/12-03/27/19	O	27	0	< 0.0008	< .001					
Cd (DIS) (mg/L)	< 0	05/31/12-03/27/19	O	27	0	< 0	< .00008					
Cr (DIS) (mg/L)	< 0.01	05/31/12-03/27/19	O	27	0	< 0	< .01					
Co (DIS) (mg/L)	< 0.01	05/31/12-03/27/19	O	27	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	05/31/12-03/27/19	O	27	0	< 0.001	< .002					
Fe (DIS) (mg/L)	< 0.02	05/31/12-03/27/19	O	27	20	0.02	0.16	0.03	0.03	0.03	0.39	L
Pb (DIS) (mg/L)	< 0.0003	05/31/12-03/27/19	O	27	1	< 0.0003	0.0005					
Mn (DIS) (mg/L)	0.23	05/31/12-03/27/19	O	27	27	0.06	0.33	0.2	0.2	0.06	0.57	
Hg (DIS) (ug/L)	< 0.005	05/31/12-03/27/19	O	27	1	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	05/31/12-03/27/19	O	27	0	< 0.001	< .005					
Ni (DIS) (mg/L)	< 0.001	05/31/12-03/27/19	O	27	0	< 0.001	< .01					
Se (DIS) (mg/L)	< 0.0002	05/31/12-03/27/19	O	27	0	< 0.0002	< .001					
Ag (DIS) (mg/L)	< 0.0002	05/31/12-03/27/19	O	27	0	< 0.0002	< .0005					
Sr (DIS) (mg/L)	0.169	05/31/12-03/27/19	O	27	27	0.163	0.2	0.172	0.17	0.009	0.319	
Tl (DIS) (mg/L)	< 0.0002	05/31/12-03/27/19	O	27	1	< 0.0002	0.0003					
U (DIS) (mg/L)	0.0004	05/31/12-03/27/19	O	27	6	0.0004	< .008					
Zn (DIS) (mg/L)	< 0.002	05/31/12-03/27/19	O	27	1	< 0.002	< .01					

SAMPLE NO BBC-1903-215 LAB NO: H19030547-001 STATION:MW-4B

PARAMETER (03/27/19)	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	4.35	05/31/12-03/27/19	O	27	27	3.02	7.26	4.44	4.45	0.74	0.12	
DO (mg/L)	0.36	05/31/12-03/27/19	O	27	27	0.03	3.39	0.3	0.28	0.71	0.08	
EH (Millivolts)	238.13	03/21/18-03/27/19	O	5	5	161.51	347.68	220.65	233.45	75.03	0.23	
pH Fld (s.u.)	7.11	05/31/12-03/27/19	O	27	27	6.84	7.76	7.44	7.49	0.22	1.48	
SC Fld (umhos/cm)	443	05/31/12-03/27/19	O	27	27	419.0	510.0	456.8	454	22	0.6	
Water Temp (Deg C)	6.3	05/31/12-03/27/19	O	27	27	5.3	7.0	6.2	6.2	0.4	0.3	
TDS (mg/L)	234	05/31/12-03/27/19	O	27	27	231.0	275.0	250.1	249	12.7	1.3	
TSS (mg/L)	< 10	03/21/13-03/27/19	O	23	0	< 4	< 10					
Tot Alk (mg/L)	220	05/31/12-03/27/19	O	27	27	220.0	270.0	238.1	240	14.8	1.2	L
Ca (mg/L)	62	05/31/12-03/27/19	O	27	27	58.0	70.0	64.7	65	3.4	0.8	
Chloride (mg/L)	2	05/31/12-03/27/19	O	27	27	1.0	2.0	1.7	2	0.4	0.7	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

F (mg/L)	0.1	05/31/12-03/27/19	O	27	27	0.1	0.2	0.1	0.1	0	0.0	L
Tot Hard (mg/L)	234	05/31/12-03/27/19	O	27	27	167.0	265.0	241.5	243	19	0.4	
Mg (mg/L)	19	05/31/12-03/27/19	O	27	27	18.0	23.0	20.5	20	1.2	1.3	
K (mg/L)	1	05/31/12-03/27/19	O	27	27	1.0	2.0	1.1	1	0.4	0.3	L
Na (mg/L)	3	05/31/12-03/27/19	O	27	27	2.0	3.0	2.2	2	0.4	2.0	H
SO4 (mg/L)	14	05/31/12-03/27/19	O	27	27	11.0	26.0	14.2	13	3.3	0.1	
Nitrate + (mg/L)	0.07	05/31/12-03/27/19	O	27	21	< 0.01	0.07	0.03	0.04	0.02	1.95	H
Al (DIS) (mg/L)	< 0.009	05/31/12-03/27/19	O	27	1	< 0.009	< .03					
Sb (DIS) (mg/L)	< 0.0005	05/31/12-03/27/19	O	27	0	< 0.0005	< .003					
As (DIS) (mg/L)	< 0.001	05/31/12-03/27/19	O	27	0	< 0.001	< .003					
Ba (DIS) (mg/L)	0.128	05/31/12-03/27/19	O	27	27	0.117	0.147	0.128	0.127	0.007	0.069	
Be (DIS) (mg/L)	< 0.0008	05/31/12-03/27/19	O	27	0	< 0.0008	< .001					
Cd (DIS) (mg/L)	< 0	05/31/12-03/27/19	O	27	0	< 0	< .00008					
Cr (DIS) (mg/L)	< 0.01	05/31/12-03/27/19	O	27	0	< 0	< .01					
Co (DIS) (mg/L)	< 0.01	05/31/12-03/27/19	O	27	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	05/31/12-03/27/19	O	27	0	< 0.001	< .002					
Fe (DIS) (mg/L)	< 0.02	05/31/12-03/27/19	O	27	0	< 0.02	< .03					
Pb (DIS) (mg/L)	< 0.0003	05/31/12-03/27/19	O	27	0	< 0.0003	< .0005					
Mn (DIS) (mg/L)	< 0.005	05/31/12-03/27/19	O	27	2	0.002	0.006					
Hg (DIS) (ug/L)	< 0.005	05/31/12-03/27/19	O	27	1	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	05/31/12-03/27/19	O	27	0	< 0.001	< .005					
Ni (DIS) (mg/L)	< 0.001	05/31/12-03/27/19	O	27	0	< 0.001	< .01					
Se (DIS) (mg/L)	< 0.0002	05/31/12-03/27/19	O	27	0	< 0.0002	< .02					
Ag (DIS) (mg/L)	< 0.0002	05/31/12-03/27/19	O	27	0	< 0.0002	< .0005					
Sr (DIS) (mg/L)	0.174	05/31/12-03/27/19	O	27	27	0.161	0.2	0.175	0.172	0.01	0.076	
Tl (DIS) (mg/L)	< 0.0002	05/31/12-03/27/19	O	27	3	< 0.0002	0.0004					
U (DIS) (mg/L)	0.0006	05/31/12-03/27/19	O	27	6	0.0006	< .008					
Zn (DIS) (mg/L)	< 0.002	05/31/12-03/27/19	O	27	0	< 0.002	< .01					

SAMPLE NO BBC-1903-219 LAB NO: H19030547-005

STATION:MW-6A

PARAMETER	03/28/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
Depth to W (Feet)	7.84	11/06/13-03/28/19	O	21	21	6.34	9.73	8.32	8.45	1.52	0.31
DO (mg/L)	5.34	11/06/13-03/28/19	O	21	21	3.07	8.09	5.39	5.53	1.31	0.04
EH (Millivolts)	282.08	03/20/18-03/28/19	O	5	5	240.46	416.95	307.82	282.08	70.02	0.37

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

pH Fld (s.u.)	7.59	11/06/13-03/28/19	O	21	21	6.61	7.64	7.44	7.49	0.26	0.59	
SC Fld (umhos/cm)	451	11/06/13-03/28/19	O	21	21	409.0	489.0	438.4	435	22.1	0.6	
Water Temp (Deg C)	5.4	11/06/13-03/28/19	O	21	21	4.9	8.1	6.5	6.4	1	1.1	
TDS (mg/L)	244	11/06/13-03/28/19	DUP	21	21	227.0	266.0	245.4	246	9	0.2	
TDS (mg/L)	246	11/06/13-03/28/19	O	21	21	227.0	266.0	245.4	246	9	0.1	
TSS (mg/L)	23	03/25/14-03/28/19	O	19	13	< 10	193.0	28.1	19	57.6	0.1	
TSS (mg/L)	28	03/25/14-03/28/19	DUP	19	13	< 10	193.0	28.1	19	57.6	0.0	
Tot Alk (mg/L)	230	11/06/13-03/28/19	O	21	21	210.0	250.0	231.1	230	12.5	0.1	
Tot Alk (mg/L)	230	11/06/13-03/28/19	DUP	21	21	210.0	250.0	231.1	230	12.5	0.1	
Ca (mg/L)	57	11/06/13-03/28/19	DUP	21	21	52.0	61.0	56.0	56	3	0.3	
Ca (mg/L)	56	11/06/13-03/28/19	O	21	21	52.0	61.0	56.0	56	3	0.0	
Chloride (mg/L)	< 1	11/06/13-03/28/19	DUP	21	11	1.0	1.0	1.0	1	0	0.0	H
Chloride (mg/L)	< 1	11/06/13-03/28/19	O	21	11	1.0	1.0	1.0	1	0	0.0	H
F (mg/L)	0.2	11/06/13-03/28/19	DUP	21	21	0.2	0.2	0.2	0.2	0	0.0	H
F (mg/L)	0.2	11/06/13-03/28/19	O	21	21	0.2	0.2	0.2	0.2	0	0.0	H
Tot Hard (mg/L)	243	11/06/13-03/28/19	O	21	21	224.0	264.0	242.9	243	12.8	0.0	
Tot Hard (mg/L)	247	11/06/13-03/28/19	DUP	21	21	224.0	264.0	242.9	243	12.8	0.3	
Mg (mg/L)	25	11/06/13-03/28/19	O	21	21	23.0	27.0	25.1	25	1.3	0.0	
Mg (mg/L)	25	11/06/13-03/28/19	DUP	21	21	23.0	27.0	25.1	25	1.3	0.0	
K (mg/L)	< 1	11/06/13-03/28/19	O	21	1	< 1	< 1					
K (mg/L)	< 1	11/06/13-03/28/19	DUP	21	1	< 1	< 1					
Na (mg/L)	3	11/06/13-03/28/19	O	21	21	3.0	3.0	3.0	3	0	0.0	H
Na (mg/L)	3	11/06/13-03/28/19	DUP	21	21	3.0	3.0	3.0	3	0	0.0	H
SO4 (mg/L)	17	11/06/13-03/28/19	O	21	20	< 1	18.0	12.7	15	3.8	1.1	
SO4 (mg/L)	17	11/06/13-03/28/19	DUP	21	20	< 1	18.0	12.7	15	3.8	1.1	
Nitrate + (mg/L)	0.1	11/06/13-03/28/19	O	21	21	0.1	0.2	0.1	0.1	0	0.0	
Nitrate + (mg/L)	0.1	11/06/13-03/28/19	DUP	21	21	0.1	0.2	0.1	0.1	0	0.0	
Al (DIS) (mg/L)	< 0.009	11/06/13-03/28/19	DUP	21	5	< 0.009	1.55					
Al (DIS) (mg/L)	< 0.009	11/06/13-03/28/19	O	21	5	< 0.009	1.55					
Sb (DIS) (mg/L)	< 0.0005	11/06/13-03/28/19	O	21	0	< 0.0005	< 0 .0005					
Sb (DIS) (mg/L)	< 0.0005	11/06/13-03/28/19	DUP	21	0	< 0.0005	< 0 .0005					
As (DIS) (mg/L)	< 0.001	11/06/13-03/28/19	O	21	0	< 0.001	< 0 .001					
As (DIS) (mg/L)	< 0.001	11/06/13-03/28/19	DUP	21	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.18	11/06/13-03/28/19	DUP	21	21	0.16	0.19	0.18	0.18	0.01	0.14	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Ba (DIS) (mg/L)	0.179	11/06/13-03/28/19	O	21	21	0.16	0.194	0.179	0.179	0.01	0.043
Be (DIS) (mg/L)	< 0.0008	11/06/13-03/28/19	O	21	0	< 0.0008	: 0 .0008				
Be (DIS) (mg/L)	< 0.0008	11/06/13-03/28/19	DUP	21	0	< 0.0008	: 0 .0008				
Cd (DIS) (mg/L)	< 0	11/06/13-03/28/19	DUP	21	1	< 0	0.0001				
Cd (DIS) (mg/L)	< 0	11/06/13-03/28/19	O	21	1	< 0	0.0001				
Cr (DIS) (mg/L)	< 0.01	11/06/13-03/28/19	DUP	21	0	< 0.01	< 0 .01				
Cr (DIS) (mg/L)	< 0.01	11/06/13-03/28/19	O	21	0	< 0.01	< 0 .01				
Co (DIS) (mg/L)	< 0.01	11/06/13-03/28/19	O	21	0	< 0.01	< 0 .01				
Co (DIS) (mg/L)	< 0.01	11/06/13-03/28/19	DUP	21	0	< 0.01	< 0 .01				
Cu (DIS) (mg/L)	< 0.002	11/06/13-03/28/19	DUP	21	0	< 0.002	< 0 .002				
Cu (DIS) (mg/L)	< 0.002	11/06/13-03/28/19	O	21	0	< 0.002	< 0 .002				
Fe (DIS) (mg/L)	< 0.02	11/06/13-03/28/19	O	21	2	< 0.02	0.7				
Fe (DIS) (mg/L)	< 0.02	11/06/13-03/28/19	DUP	21	2	< 0.02	0.7				
Pb (DIS) (mg/L)	< 0.0003	11/06/13-03/28/19	O	21	1	< 0.0003	0.0009				
Pb (DIS) (mg/L)	< 0.0003	11/06/13-03/28/19	DUP	21	1	< 0.0003	0.0009				
Mn (DIS) (mg/L)	< 0.005	11/06/13-03/28/19	O	21	1	< 0.001	0.007				
Mn (DIS) (mg/L)	< 0.005	11/06/13-03/28/19	DUP	21	1	< 0.001	0.007				
Hg (DIS) (ug/L)	< 0.005	11/06/13-03/28/19	DUP	21	0	< 0	< .005				
Hg (DIS) (ug/L)	< 0.005	11/06/13-03/28/19	O	21	0	< 0	< .005				
Mo (DIS) (mg/L)	< 0.002	11/06/13-03/28/19	O	21	0	< 0.001	< .002				
Mo (DIS) (mg/L)	< 0.002	11/06/13-03/28/19	DUP	21	0	< 0.001	< .002				
Ni (DIS) (mg/L)	< 0.001	11/06/13-03/28/19	DUP	21	2	< 0.001	0.002				
Ni (DIS) (mg/L)	< 0.001	11/06/13-03/28/19	O	21	2	< 0.001	0.002				
Se (DIS) (mg/L)	0.0002	11/06/13-03/28/19	DUP	21	9	< 0.0002	< .0004				
Se (DIS) (mg/L)	0.0002	11/06/13-03/28/19	O	21	9	< 0.0002	< .0004				
Ag (DIS) (mg/L)	< 0.0002	11/06/13-03/28/19	O	21	0	< 0.0002	: 0 .0002				
Ag (DIS) (mg/L)	< 0.0002	11/06/13-03/28/19	DUP	21	0	< 0.0002	: 0 .0002				
Sr (DIS) (mg/L)	0.169	11/06/13-03/28/19	O	21	21	0.149	0.175	0.163	0.163	0.008	0.696
Sr (DIS) (mg/L)	0.17	11/06/13-03/28/19	DUP	21	21	0.15	0.18	0.16	0.16	0.01	0.66
Tl (DIS) (mg/L)	< 0.0002	11/06/13-03/28/19	DUP	21	0	< 0.0002	: 0 .0002				
Tl (DIS) (mg/L)	< 0.0002	11/06/13-03/28/19	O	21	0	< 0.0002	: 0 .0002				
U (DIS) (mg/L)	0.0007	11/06/13-03/28/19	O	21	3	0.0006	< .008				
U (DIS) (mg/L)	0.0007	11/06/13-03/28/19	DUP	21	3	0.0006	< .008				
Zn (DIS) (mg/L)	< 0.002	11/06/13-03/28/19	O	21	2	< 0.002	0.005				

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Zn (DIS) (mg/L)	< 0.002	11/06/13-03/28/19	DUP	21	2	< 0.002	0.005						

SAMPLE NO BBC-1903-221 LAB NO: H19030547-007 STATION:MW-6B

03/28/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	11.13	11/06/13-03/28/19	O	21	21	10.0	12.95	11.69	11.76	1.46	0.38	
EH (Millivolts)	1928.33	03/20/18-03/28/19	O	5	5	246.03	1928.33	434.22	306.96	728.69	2.05	H
TDS (mg/L)	249	11/06/13-03/28/19	O	21	21	236.0	272.0	254.5	253	8.9	0.6	
TSS (mg/L)	< 10	03/25/14-03/28/19	O	19	14	< 10	1260.0	25.3	15	285.6	0.1	L
Tot Alk (mg/L)	230	11/06/13-03/28/19	O	21	21	220.0	240.0	229.4	230	6.9	0.1	
Ca (mg/L)	50	11/06/13-03/28/19	O	21	21	43.0	51.0	48.0	48	2.1	0.9	
Chloride (mg/L)	< 1	11/06/13-03/28/19	O	21	10	1.0	2.0					
F (mg/L)	0.5	11/06/13-03/28/19	O	21	21	0.5	0.8	0.6	0.6	0.1	1.0	L
Tot Hard (mg/L)	227	11/06/13-03/28/19	O	21	21	202.0	230.0	218.2	219	9	1.0	
Mg (mg/L)	25	11/06/13-03/28/19	O	21	21	22.0	26.0	23.9	24	1.1	1.0	
K (mg/L)	1	11/06/13-03/28/19	O	21	21	1.0	2.0	1.0	1	0.3	0.1	L
Na (mg/L)	14	11/06/13-03/28/19	O	21	21	9.0	21.0	16.4	17	2.8	0.9	
SO4 (mg/L)	23	11/06/13-03/28/19	O	21	21	16.0	29.0	22.0	23	3.5	0.3	
Nitrate + (mg/L)	0.07	11/06/13-03/28/19	O	21	21	0.06	0.14	0.09	0.08	0.03	0.56	
Al (DIS) (mg/L)	< 0.009	11/06/13-03/28/19	O	21	7	< 0.009	0.275					
Sb (DIS) (mg/L)	< 0.0005	11/06/13-03/28/19	O	21	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	11/06/13-03/28/19	O	21	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.111	11/06/13-03/28/19	O	21	21	0.084	0.12	0.102	0.102	0.009	1.032	
Be (DIS) (mg/L)	< 0.0008	11/06/13-03/28/19	O	21	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	11/06/13-03/28/19	O	21	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	11/06/13-03/28/19	O	21	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	11/06/13-03/28/19	O	21	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	11/06/13-03/28/19	O	21	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	11/06/13-03/28/19	O	21	3	< 0.02	0.15					
Pb (DIS) (mg/L)	< 0.0003	11/06/13-03/28/19	O	21	1	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	11/06/13-03/28/19	O	21	19	< 0.005	0.064	0.012	0.013	0.014	0.529	L
Hg (DIS) (ug/L)	< 0.005	11/06/13-03/28/19	O	21	0	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	11/06/13-03/28/19	O	21	2	0.001	< .002					
Ni (DIS) (mg/L)	< 0.001	11/06/13-03/28/19	O	21	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	11/06/13-03/28/19	O	21	3	< 0.0002	< .0004					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Ag (DIS) (mg/L)	< 0.0002	11/06/13-03/28/19	O	21	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.238	11/06/13-03/28/19	O	21	21	0.181	0.258	0.231	0.237	0.023	0.312	
Tl (DIS) (mg/L)	< 0.0002	11/06/13-03/28/19	O	21	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0007	11/06/13-03/28/19	O	21	3	0.0007	< .008					
Zn (DIS) (mg/L)	< 0.002	11/06/13-03/28/19	O	21	1	< 0.002	< 0 .002					

SAMPLE NO BBC-1903-218 LAB NO: H19030547-004 STATION:MW-7

03/28/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	32.32	11/06/13-03/28/19	O	21	21	30.92	33.49	32.03	32.1	1.31	0.22	
DO (mg/L)	0.34	11/06/13-03/28/19	O	21	21	0.07	2.4	0.6	0.69	0.65	0.4	
EH (Millivolts)	250.69	03/20/18-03/28/19	O	5	5	193.2	250.69	218.97	211.01	25.91	1.22	H
pH Fld (s.u.)	7.48	11/06/13-03/28/19	O	21	21	6.83	7.61	7.45	7.52	0.18	0.15	
SC Fld (umhos/cm)	535	11/06/13-03/28/19	O	21	21	490.0	582.0	538.1	540	24.2	0.1	
Water Temp (Deg C)	7.1	11/06/13-03/28/19	O	21	21	6.3	8.8	7.6	7.7	0.6	0.8	
TDS (mg/L)	310	11/06/13-03/28/19	O	21	21	304.0	348.0	318.6	314	12.2	0.7	
TSS (mg/L)	41	03/25/14-03/28/19	O	19	16	< 10	1440.0	77.4	96	337.9	0.1	
Tot Alk (mg/L)	230	11/06/13-03/28/19	O	21	21	220.0	280.0	236.7	230	16.4	0.4	
Ca (mg/L)	60	11/06/13-03/28/19	O	21	21	54.0	63.0	58.3	58	2.6	0.7	
Chloride (mg/L)	4	11/06/13-03/28/19	O	21	21	3.0	5.0	3.9	4	0.5	0.3	
F (mg/L)	0.3	11/06/13-03/28/19	O	21	21	0.3	0.7	0.3	0.3	0.1	0.2	L
Tot Hard (mg/L)	307	11/06/13-03/28/19	O	21	21	279.0	322.0	300.2	301	11.7	0.6	
Mg (mg/L)	38	11/06/13-03/28/19	O	21	21	35.0	40.0	37.5	38	1.5	0.3	
K (mg/L)	1	11/06/13-03/28/19	O	21	21	1.0	3.0	1.1	1	0.5	0.2	L
Na (mg/L)	3	11/06/13-03/28/19	O	21	21	2.0	4.0	2.9	3	0.5	0.3	
SO4 (mg/L)	62	11/06/13-03/28/19	O	21	21	54.0	84.0	66.1	65	7.9	0.5	
Nitrate + (mg/L)	< 0.01	11/06/13-03/28/19	O	21	3	< 0.01	0.05					
Al (DIS) (mg/L)	0.014	11/06/13-03/28/19	O	21	14	0.009	0.097	0.018	0.013	0.034	0.119	
Sb (DIS) (mg/L)	< 0.0005	11/06/13-03/28/19	O	21	2	< 0.0005	0.0094					
As (DIS) (mg/L)	0.001	11/06/13-03/28/19	O	21	21	0.001	0.003	0.002	0.002	0	0.0	L
Ba (DIS) (mg/L)	0.042	11/06/13-03/28/19	O	21	21	0.04	0.066	0.046	0.044	0.007	0.557	
Be (DIS) (mg/L)	< 0.0008	11/06/13-03/28/19	O	21	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	11/06/13-03/28/19	O	21	1	< 0	0.0					
Cr (DIS) (mg/L)	< 0.01	11/06/13-03/28/19	O	21	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	11/06/13-03/28/19	O	21	0	< 0.01	< 0 .01					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Cu (DIS) (mg/L)	< 0.002	11/06/13-03/28/19	O	21	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	0.05	11/06/13-03/28/19	O	21	20	0.02	0.22	0.05	0.05	0.07	0.01	
Pb (DIS) (mg/L)	0.0006	11/06/13-03/28/19	O	21	10	< 0.0003	0.0037					
Mn (DIS) (mg/L)	0.016	11/06/13-03/28/19	O	21	21	0.013	0.369	0.041	0.033	0.075	0.333	
Hg (DIS) (ug/L)	< 0.005	11/06/13-03/28/19	O	21	1	< 0	< .005					
Mo (DIS) (mg/L)	0.004	11/06/13-03/28/19	O	21	17	0.002	0.012	0.003	0.002	0.002	0.743	
Ni (DIS) (mg/L)	< 0.001	11/06/13-03/28/19	O	21	1	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	11/06/13-03/28/19	O	21	1	< 0.0002	0.0005					
Ag (DIS) (mg/L)	< 0.0002	11/06/13-03/28/19	O	21	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.17	11/06/13-03/28/19	O	21	21	0.16	0.21	0.17	0.17	0.01	0.16	
Tl (DIS) (mg/L)	< 0.0002	11/06/13-03/28/19	O	21	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0023	11/06/13-03/28/19	O	21	3	0.0022	< .008					
Zn (DIS) (mg/L)	< 0.002	11/06/13-03/28/19	O	21	2	< 0.002	0.005					

SAMPLE NO BBC-1903-217 LAB NO: H19030547-003

STATION:MW-8

03/28/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	31.75	11/06/13-03/28/19	O	21	21	27.55	32.74	30.48	30.72	1.76	0.72	
DO (mg/L)	0.58	11/06/13-03/28/19	O	21	21	0.01	1.3	0.18	0.21	0.33	1.21	
EH (Millivolts)	150.64	03/20/18-03/28/19	O	5	5	117.06	150.64	128.71	124.66	12.54	1.75	H
pH Fld (s.u.)	7.89	11/06/13-03/28/19	O	21	21	7.46	8.08	7.89	7.96	0.18	0.02	
SC Fld (umhos/cm)	309	11/06/13-03/28/19	O	21	21	280.0	330.0	307.1	309	12.6	0.1	
Water Temp (Deg C)	6.8	11/06/13-03/28/19	O	21	21	6.0	7.3	7.0	7.1	0.4	0.4	
TDS (mg/L)	160	11/06/13-03/28/19	O	21	21	153.0	171.0	163.4	163	4	0.8	
TSS (mg/L)	< 10	03/25/14-03/28/19	O	19	7	< 4	65.0					
Tot Alk (mg/L)	160	11/06/13-03/28/19	O	21	21	150.0	170.0	155.1	150	6.6	0.7	
Ca (mg/L)	25	11/06/13-03/28/19	O	21	21	24.0	29.0	26.4	27	1.1	1.3	
Chloride (mg/L)	< 1	11/06/13-03/28/19	O	21	0	< 1	< 1					
F (mg/L)	0.2	11/06/13-03/28/19	O	21	21	0.2	0.3	0.2	0.2	0	0.0	L
Tot Hard (mg/L)	158	11/06/13-03/28/19	O	21	21	153.0	173.0	163.1	165	4.7	1.1	
Mg (mg/L)	23	11/06/13-03/28/19	O	21	21	22.0	25.0	23.6	24	0.8	0.7	
K (mg/L)	< 1	11/06/13-03/28/19	O	21	2	< 1	< 1					
Na (mg/L)	3	11/06/13-03/28/19	O	21	21	3.0	6.0	3.1	3	0.6	0.2	L
SO4 (mg/L)	15	11/06/13-03/28/19	O	21	21	11.0	16.0	14.0	14	1.6	0.7	
Nitrate + (mg/L)	< 0.01	11/06/13-03/28/19	O	21	1	< 0.01	< 0 .01					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Al (DIS) (mg/L)	< 0.009	11/06/13-03/28/19	O	21	5	< 0.009	0.036					
Sb (DIS) (mg/L)	< 0.0005	11/06/13-03/28/19	O	21	6	< 0.0005	0.0179					
As (DIS) (mg/L)	0.002	11/06/13-03/28/19	O	21	21	0.002	0.004	0.002	0.002	0.001	0.233	L
Ba (DIS) (mg/L)	0.079	11/06/13-03/28/19	O	21	21	0.066	0.08	0.075	0.075	0.003	1.345	
Be (DIS) (mg/L)	< 0.0008	11/06/13-03/28/19	O	21	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	11/06/13-03/28/19	O	21	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	11/06/13-03/28/19	O	21	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	11/06/13-03/28/19	O	21	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	11/06/13-03/28/19	O	21	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	0.1	11/06/13-03/28/19	O	21	21	0.0	0.1	0.1	0.1	0	0.0	
Pb (DIS) (mg/L)	< 0.0003	11/06/13-03/28/19	O	21	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	0.019	11/06/13-03/28/19	O	21	21	0.013	0.255	0.035	0.03	0.05	0.317	
Hg (DIS) (ug/L)	< 0.005	11/06/13-03/28/19	O	21	0	< 0	< .005					
Mo (DIS) (mg/L)	0.002	11/06/13-03/28/19	O	21	14	< 0.002	0.015	0.003	0.002	0.003	0.206	L
Ni (DIS) (mg/L)	< 0.001	11/06/13-03/28/19	O	21	1	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	11/06/13-03/28/19	O	21	2	< 0.0002	0.0328					
Ag (DIS) (mg/L)	< 0.0002	11/06/13-03/28/19	O	21	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.0877	11/06/13-03/28/19	O	21	21	0.0751	0.0984	0.0869	0.0873	0.0039	0.1999	
Tl (DIS) (mg/L)	< 0.0002	11/06/13-03/28/19	O	21	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0008	11/06/13-03/28/19	O	21	3	0.0007	< .008					
Zn (DIS) (mg/L)	< 0.002	11/06/13-03/28/19	O	21	2	< 0.002	0.003					

SAMPLE NO BBC-1903-201 LAB NO: H19030476-002 STATION:MW-9

03/25/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	51.68	11/24/14-03/25/19	O	18	18	46.89	52.22	50.58	50.84	1.18	0.93	
DO (mg/L)	0.06	11/24/14-03/25/19	O	18	18	0.02	1.25	0.16	0.13	0.41	0.25	
EH (Millivolts)	207.06	03/19/18-03/25/19	O	5	5	172.8	227.53	198.21	195.02	20.13	0.44	
pH Fld (s.u.)	7.1	11/24/14-03/25/19	O	18	18	6.7	7.2	7.0	7.1	0.1	0.7	
SC Fld (umhos/cm)	784	11/24/14-03/25/19	O	18	18	470.0	826.0	757.5	782	77.6	0.3	
Water Temp (Deg C)	8.5	11/24/14-03/25/19	O	18	18	6.8	9.4	8.4	8.6	0.7	0.1	
TDS (mg/L)	506	11/24/14-03/25/19	O	18	18	501.0	548.0	524.7	527.5	10.7	1.7	
TSS (mg/L)	< 10	03/24/15-03/25/19	O	17	1	< 4	51.0					
Tot Alk (mg/L)	240	11/24/14-03/25/19	O	18	18	230.0	250.0	242.7	240	5.5	0.5	
Ca (mg/L)	91	11/24/14-03/25/19	O	18	18	79.0	91.0	87.8	88	3	1.1	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Chloride (mg/L)	1	11/24/14-03/25/19	O	18	18	1.0	2.0	1.1	1	0.2	0.3	L
F (mg/L)	0.5	11/24/14-03/25/19	O	18	18	0.5	0.6	0.6	0.6	0	0.0	L
Tot Hard (mg/L)	450	11/24/14-03/25/19	O	18	18	389.0	454.0	430.0	432	18.1	1.1	
Mg (mg/L)	54	11/24/14-03/25/19	O	18	18	46.0	55.0	51.4	51.5	2.2	1.2	
K (mg/L)	4	11/24/14-03/25/19	O	18	18	4.0	5.0	4.1	4	0.3	0.3	L
Na (mg/L)	6	11/24/14-03/25/19	O	18	18	5.0	6.0	5.3	5	0.5	1.4	H
SO4 (mg/L)	198	11/24/14-03/25/19	O	18	18	190.0	216.0	202.5	201	7.4	0.6	
Nitrate + (mg/L)	< 0.01	11/24/14-03/25/19	O	18	2	< 0.01	0.02					
Al (DIS) (mg/L)	< 0.009	11/24/14-03/25/19	O	18	3	< 0.009	0.042					
Sb (DIS) (mg/L)	< 0.0005	11/24/14-03/25/19	O	18	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	0.014	11/24/14-03/25/19	O	18	18	0.012	0.015	0.013	0.013	0.001	1.038	
Ba (DIS) (mg/L)	0.016	11/24/14-03/25/19	O	18	18	0.012	0.021	0.015	0.014	0.002	0.742	
Be (DIS) (mg/L)	< 0.0008	11/24/14-03/25/19	O	18	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	11/24/14-03/25/19	O	18	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	11/24/14-03/25/19	O	18	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	11/24/14-03/25/19	O	18	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	11/24/14-03/25/19	O	18	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	0.86	11/24/14-03/25/19	O	18	18	0.78	0.9	0.83	0.84	0.03	0.9	
Pb (DIS) (mg/L)	0.0013	11/24/14-03/25/19	O	18	15	< 0.0003	0.012	0.0018	0.0025	0.003	0.1582	
Mn (DIS) (mg/L)	0.088	11/24/14-03/25/19	O	18	18	0.088	0.129	0.096	0.093	0.01	0.781	L
Hg (DIS) (ug/L)	< 0.005	11/24/14-03/25/19	O	18	0	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	11/24/14-03/25/19	O	18	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	11/24/14-03/25/19	O	18	8	0.001	0.001					
Se (DIS) (mg/L)	< 0.0002	11/24/14-03/25/19	O	18	0	< 0.0002	< .0004					
Ag (DIS) (mg/L)	< 0.0002	11/24/14-03/25/19	O	18	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	1.34	11/24/14-03/25/19	O	18	18	1.08	1.53	1.23	1.23	0.12	0.9	
Tl (DIS) (mg/L)	0.0027	11/24/14-03/25/19	O	18	18	0.0027	0.0045	0.0036	0.0037	0.0004	2.3395	L
U (DIS) (mg/L)	0.001	11/24/14-03/25/19	O	18	2	0.001	< .008					
Zn (DIS) (mg/L)	< 0.002	11/24/14-03/25/19	O	18	9	< 0.002	0.004					

SAMPLE NO BBC-1903-300 LAB NO: H19030547-010 STATION:SC15-184

03/28/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	7.12	08/04/15-03/28/19	O	9	9	4.58	8.34	6.25	6.35	1.19	0.73
EH (Millivolts)	297.63	06/13/18-03/28/19	O	4	4	247.81	386.41	308.35	307.41	57.42	0.19

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

pH Fld (s.u.)	7.91	08/04/15-03/28/19	O	9	9	7.32	8.01	7.83	7.91	0.21	0.36	
SC Fld (umhos/cm)	372	08/04/15-03/28/19	O	9	9	333.0	380.0	364.0	367	13.9	0.6	
Water Temp (Deg C)	6.3	08/04/15-03/28/19	O	9	9	5.8	6.8	6.3	6.5	0.3	0.1	
TDS (mg/L)	198	08/04/15-03/28/19	O	9	9	194.0	214.0	199.7	198	6.3	0.3	
TSS (mg/L)	< 10	08/04/15-03/28/19	O	9	1	< 10	110.0					
Tot Alk (mg/L)	190	08/04/15-03/28/19	O	9	9	180.0	190.0	187.7	190	4.2	0.5	H
Ca (mg/L)	38	08/04/15-03/28/19	O	9	9	36.0	40.0	38.1	38	1.5	0.1	
Chloride (mg/L)	< 1	08/04/15-03/28/19	O	9	0	< 1	< 1					
F (mg/L)	0.2	08/04/15-03/28/19	O	9	9	0.2	0.2	0.2	0.2	0	0.0	H
Tot Hard (mg/L)	202	08/04/15-03/28/19	O	9	9	192.0	215.0	202.8	202	7.9	0.1	
Mg (mg/L)	26	08/04/15-03/28/19	O	9	9	25.0	28.0	26.1	26	0.9	0.1	
K (mg/L)	< 1	08/04/15-03/28/19	O	9	0	< 1	< 1					
Na (mg/L)	2	08/04/15-03/28/19	O	9	9	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	15	08/04/15-03/28/19	O	9	9	11.0	16.0	13.8	14	2.2	0.6	
Nitrate + (mg/L)	0.25	08/04/15-03/28/19	O	9	9	0.24	0.3	0.26	0.25	0.02	0.3	
Al (DIS) (mg/L)	< 0.009	08/04/15-03/28/19	O	9	3	< 0.009	0.059					
Sb (DIS) (mg/L)	< 0.0005	08/04/15-03/28/19	O	9	0	< 0.0005	< 0.0005					
As (DIS) (mg/L)	< 0.001	08/04/15-03/28/19	O	9	0	< 0.001	< 0.001					
Ba (DIS) (mg/L)	0.092	08/04/15-03/28/19	O	9	9	0.083	0.092	0.088	0.089	0.004	1.015	H
Be (DIS) (mg/L)	< 0.0008	08/04/15-03/28/19	O	9	0	< 0.0008	< 0.0008					
Cd (DIS) (mg/L)	< 0	08/04/15-03/28/19	O	9	0	< 0	< .00003					
Cr (DIS) (mg/L)	< 0.01	08/04/15-03/28/19	O	9	0	< 0.01	< 0.01					
Co (DIS) (mg/L)	< 0.01	08/04/15-03/28/19	O	9	0	< 0.01	< 0.01					
Cu (DIS) (mg/L)	< 0.002	08/04/15-03/28/19	O	9	0	< 0.002	< 0.002					
Fe (DIS) (mg/L)	< 0.02	08/04/15-03/28/19	O	9	3	< 0.02	0.05					
Pb (DIS) (mg/L)	< 0.0003	08/04/15-03/28/19	O	9	0	< 0.0003	< 0.0003					
Mn (DIS) (mg/L)	< 0.005	08/04/15-03/28/19	O	9	0	< 0.005	< 0.005					
Hg (DIS) (ug/L)	< 0.005	08/04/15-03/28/19	O	9	0	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	08/04/15-03/28/19	O	9	0	< 0.002	< 0.002					
Ni (DIS) (mg/L)	< 0.001	08/04/15-03/28/19	O	9	0	< 0.001	< 0.001					
Se (DIS) (mg/L)	0.001	08/04/15-03/28/19	O	9	9	0.001	0.001	0.001	0.001	0	0.0	
Ag (DIS) (mg/L)	< 0.0002	08/04/15-03/28/19	O	9	0	< 0.0002	< 0.0002					
Sr (DIS) (mg/L)	0.123	08/04/15-03/28/19	O	9	9	0.105	0.123	0.117	0.118	0.007	0.893	H
Tl (DIS) (mg/L)	< 0.0002	08/04/15-03/28/19	O	9	0	< 0.0002	< 0.0002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

U (DIS) (mg/L)	0.0011	08/04/15-03/28/19	O	9	2	0.001	< .008					
Zn (DIS) (mg/L)	< 0.002	08/04/15-03/28/19	O	9	5	< 0.002	0.008	0.003	0.003	0.003	0.416	L

SAMPLE NO BBC-1903-301 LAB NO: z STATION:SC15-185

03/28/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	35.52	08/04/15-11/15/18	OBS	13	13	23.4	37.21	31.08	30.97	3.73	1.19	

SAMPLE NO BBC-1903-112 LAB NO: H19030475-005 STATION:SP-10

03/26/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	7.73	05/23/18-03/26/19	O	9	9	6.76	8.93	7.91	8	1.1	0.17	
pH Fld (s.u.)	7.83	05/23/18-03/26/19	O	9	9	6.92	8.09	7.54	7.55	0.3	0.96	
SC Fld (umhos/cm)	400	05/23/18-03/26/19	O	9	9	305.0	434.0	396.9	419	33.4	0.1	
Flow (Gallons Per Min)	0.01	05/23/18-03/26/19	O	8	8	0.01	59.69	2.04	1.92	14.82	0.14	L
Water Temp (Deg C)	3.8	05/23/18-03/26/19	O	9	9	3.8	8.1	6.4	6.9	2.5	1.0	L
TDS (mg/L)	218	05/23/18-03/26/19	O	9	9	203.0	234.0	223.8	229	11.8	0.5	
TSS (mg/L)	< 10	05/23/18-03/26/19	O	9	3	< 10	68.0					
Tot Alk (mg/L)	200	05/23/18-03/26/19	O	9	9	180.0	220.0	209.6	220	13.7	0.7	
Ca (mg/L)	55	05/23/18-03/26/19	O	9	9	49.0	61.0	56.3	56	3.6	0.4	
Chloride (mg/L)	< 1	05/23/18-03/26/19	O	9	0	< 1	< 1					
F (mg/L)	0.1	05/23/18-03/26/19	O	9	9	0.1	0.1	0.1	0.1	0	0.0	H
Tot Hard (mg/L)	221	05/23/18-03/26/19	O	9	9	193.0	245.0	224.2	221	15.3	0.2	
Mg (mg/L)	20	05/23/18-03/26/19	O	9	9	17.0	22.0	20.2	20	1.5	0.1	
K (mg/L)	< 1	05/23/18-03/26/19	O	9	5	< 1	< 1	1.0	1	0	0.0	H
Na (mg/L)	2	05/23/18-03/26/19	O	9	9	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	16	05/23/18-03/26/19	O	9	9	8.0	17.0	13.5	14	3.2	0.8	
Nitrate + (mg/L)	0.24	05/23/18-03/26/19	O	9	9	0.16	0.28	0.22	0.24	0.04	0.39	
Al (DIS) (mg/L)	< 0.009	05/23/18-03/26/19	O	9	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	05/23/18-03/26/19	O	9	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	05/23/18-03/26/19	O	9	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.048	05/23/18-03/26/19	O	9	9	0.04	0.056	0.05	0.053	0.005	0.488	
Be (DIS) (mg/L)	< 0.0008	05/23/18-03/26/19	O	9	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	05/23/18-03/26/19	O	9	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	05/23/18-03/26/19	O	9	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	05/23/18-03/26/19	O	9	0	< 0.01	< 0 .01					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Cu (DIS) (mg/L)	< 0.002	05/23/18-03/26/19	O	9	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	05/23/18-03/26/19	O	9	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	05/23/18-03/26/19	O	9	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	05/23/18-03/26/19	O	9	3	< 0.005	0.024					
Hg (DIS) (ug/L)	< 0.005	05/23/18-03/26/19	O	9	0	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	05/23/18-03/26/19	O	9	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	05/23/18-03/26/19	O	9	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	0.0003	05/23/18-03/26/19	O	9	7	< 0.0002	0.0003	0.0003	0.0003	0.0001	0.3793	H
Ag (DIS) (mg/L)	< 0.0002	05/23/18-03/26/19	O	9	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.107	05/23/18-03/26/19	O	9	9	0.095	0.122	0.111	0.113	0.008	0.509	
Tl (DIS) (mg/L)	< 0.0002	05/23/18-03/26/19	O	9	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0007	05/23/18-03/26/19	O	9	3	0.0007	< .008					
Zn (DIS) (mg/L)	< 0.002	05/23/18-03/26/19	O	9	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1903-100 LAB NO: H19030475-001 STATION:SP-4

03/26/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	9.66	07/21/11-03/26/19	O	50	50	6.7	13.95	9.82	9.7	1.37	0.12	
pH Fld (s.u.)	8.02	07/21/11-03/26/19	O	49	49	6.95	8.63	7.7	7.71	0.29	1.11	
SC Fld (umhos/cm)	438	07/21/11-03/26/19	O	50	50	162.0	481.0	420.4	434	46.9	0.4	
Flow (Gallons Per Min)	2.6	07/21/11-03/26/19	O	42	42	0.0	50.3	2.8	5.4	9.3	0.0	
Water Temp (Deg C)	5.6	07/21/11-03/26/19	O	49	49	0.1	12.2	5.6	6.5	2.2	0.0	
TDS (mg/L)	234	07/21/11-03/26/19	O	50	50	202.0	272.0	247.2	251	14	0.9	
TSS (mg/L)	< 10	08/28/13-03/26/19	O	47	29	5.0	890.0	21.3	12	125.7	0.1	
Tot Alk (mg/L)	200	07/21/11-03/26/19	O	50	50	190.0	210.0	201.4	200	4.5	0.3	
Ca (mg/L)	50	07/21/11-03/26/19	O	50	50	42.0	56.0	50.8	51	2.5	0.3	
Chloride (mg/L)	< 1	07/21/11-03/26/19	O	50	14	1.0	1.0					
F (mg/L)	0.2	07/21/11-03/26/19	O	50	50	0.2	0.3	0.2	0.2	0	0.0	L
Tot Hard (mg/L)	231	07/21/11-03/26/19	O	50	50	208.0	255.0	236.5	238	11	0.5	
Mg (mg/L)	26	07/21/11-03/26/19	O	50	50	24.0	29.0	26.6	27	1.2	0.5	
K (mg/L)	2	07/21/11-03/26/19	O	50	50	1.0	2.0	1.9	2	0.3	0.4	H
Na (mg/L)	2	07/21/11-03/26/19	O	50	50	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	40	07/21/11-03/26/19	O	50	50	10.0	45.0	35.4	38	6.6	0.7	
Nitrate + (mg/L)	0.24	07/21/11-03/26/19	O	50	50	0.18	0.35	0.25	0.25	0.03	0.35	
Al (DIS) (mg/L)	< 0.009	07/21/11-03/26/19	O	50	4	< 0.009	0.031					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Sb (DIS) (mg/L)	< 0.0005	07/21/11-03/26/19	O	49	0	< 0.0005	< .003				
As (DIS) (mg/L)	< 0.001	07/21/11-03/26/19	O	49	0	< 0.001	< .003				
Ba (DIS) (mg/L)	0.113	07/21/11-03/26/19	O	49	49	0.101	0.121	0.112	0.112	0.005	0.259
Be (DIS) (mg/L)	< 0.0008	07/21/11-03/26/19	O	49	0	< 0.0008	< .001				
Cd (DIS) (mg/L)	< 0	07/21/11-03/26/19	O	49	0	< 0	< .00008				
Cr (DIS) (mg/L)	< 0.01	07/21/11-03/26/19	O	49	0	< 0	< .01				
Co (DIS) (mg/L)	< 0.01	07/21/11-03/26/19	O	49	0	< 0.01	< .01				
Cu (DIS) (mg/L)	< 0.002	07/21/11-03/26/19	O	49	1	< 0.001	0.017				
Fe (DIS) (mg/L)	< 0.02	07/21/11-03/26/19	O	49	11	< 0.02	0.14				
Pb (DIS) (mg/L)	< 0.0003	07/21/11-03/26/19	O	49	0	< 0.0003	< .0005				
Mn (DIS) (mg/L)	< 0.005	07/21/11-03/26/19	O	49	23	0.004	0.038				
Hg (DIS) (ug/L)	< 0.005	07/21/11-03/26/19	O	48	1	< 0	< .005				
Mo (DIS) (mg/L)	< 0.002	07/21/11-03/26/19	O	49	0	< 0.001	< .005				
Ni (DIS) (mg/L)	< 0.001	07/21/11-03/26/19	O	49	0	< 0.001	< .01				
Se (DIS) (mg/L)	0.0003	07/21/11-03/26/19	O	49	45	< 0.0002	< .001	0.0004	0.0004	0.0001	1.1629
Ag (DIS) (mg/L)	< 0.0002	07/21/11-03/26/19	O	49	0	< 0.0002	< .0005				
Sr (DIS) (mg/L)	0.0725	07/21/11-03/26/19	O	49	46	0.0672	< .1	0.074	0.073	0.0069	0.2156
Tl (DIS) (mg/L)	0.0003	07/21/11-03/26/19	O	49	49	0.0002	0.0004	0.0003	0.0003	0.0001	0.0327
U (DIS) (mg/L)	0.0005	07/21/11-03/26/19	O	49	9	0.0004	< .008				
Zn (DIS) (mg/L)	< 0.002	07/21/11-03/26/19	O	49	14	< 0.002	< .01				

SAMPLE NO BBC-1903-107 LAB NO: H19030475-002

STATION:SP-6

03/26/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	9.68	10/12/11-03/26/19	O	43	43	6.7	282.0	10.56	9.68	40.16	0.02
DO (mg/L)	9.68	10/12/11-03/26/19	DUP	43	43	6.7	282.0	10.56	9.68	40.16	0.02
pH Fld (s.u.)	8.17	10/12/11-03/26/19	O	42	42	5.81	8.72	7.31	7.44	0.66	1.3
pH Fld (s.u.)	8.17	10/12/11-03/26/19	DUP	42	42	5.81	8.72	7.31	7.44	0.66	1.3
SC Fld (umhos/cm)	256	10/12/11-03/26/19	DUP	43	43	241.0	327.0	268.8	269	14.6	0.9
SC Fld (umhos/cm)	256	10/12/11-03/26/19	O	43	43	241.0	327.0	268.8	269	14.6	0.9
Flow (Gallons Per Min)	0.83	10/12/11-03/26/19	O	41	33	0.27	3.23	1.0	1	0.81	0.21
Water Temp (Deg C)	4.7	10/12/11-03/26/19	O	42	42	4.4	10.3	7.1	7.6	1.5	1.6
Water Temp (Deg C)	4.7	10/12/11-03/26/19	DUP	42	42	4.4	10.3	7.1	7.6	1.5	1.6
TDS (mg/L)	163	10/12/11-03/26/19	O	43	43	145.0	188.0	161.2	161	7.9	0.2
TDS (mg/L)	156	10/12/11-03/26/19	DUP	43	43	145.0	188.0	161.2	161	7.9	0.7

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

TSS (mg/L)	< 10	08/28/13-03/26/19	O	41	13	< 4	216.0					
TSS (mg/L)	< 10	08/28/13-03/26/19	DUP	41	13	< 4	216.0					
Tot Alk (mg/L)	140	10/12/11-03/26/19	O	43	43	120.0	160.0	134.7	130	6.9	0.8	
Tot Alk (mg/L)	140	10/12/11-03/26/19	DUP	43	43	120.0	160.0	134.7	130	6.9	0.8	
Ca (mg/L)	35	10/12/11-03/26/19	DUP	43	43	32.0	38.0	35.0	35	1.4	0.0	
Ca (mg/L)	35	10/12/11-03/26/19	O	43	43	32.0	38.0	35.0	35	1.4	0.0	
Chloride (mg/L)	< 1	10/12/11-03/26/19	O	43	10	< 1	2.0					
Chloride (mg/L)	< 1	10/12/11-03/26/19	DUP	43	10	< 1	2.0					
F (mg/L)	0.2	10/12/11-03/26/19	O	43	43	0.1	0.2	0.2	0.2	0	0.0	H
F (mg/L)	0.2	10/12/11-03/26/19	DUP	43	43	0.1	0.2	0.2	0.2	0	0.0	H
Tot Hard (mg/L)	142	10/12/11-03/26/19	O	43	43	129.0	160.0	140.8	141	6.4	0.2	
Tot Hard (mg/L)	141	10/12/11-03/26/19	DUP	43	43	129.0	160.0	140.8	141	6.4	0.0	
Mg (mg/L)	13	10/12/11-03/26/19	O	43	43	12.0	16.0	12.9	13	0.9	0.1	
Mg (mg/L)	13	10/12/11-03/26/19	DUP	43	43	12.0	16.0	12.9	13	0.9	0.1	
K (mg/L)	< 1	10/12/11-03/26/19	DUP	43	8	< 1	< 1					
K (mg/L)	< 1	10/12/11-03/26/19	O	43	8	< 1	< 1					
Na (mg/L)	2	10/12/11-03/26/19	DUP	43	43	2.0	2.0	2.0	2	0	0.0	H
Na (mg/L)	2	10/12/11-03/26/19	O	43	43	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	9	10/12/11-03/26/19	DUP	43	43	7.0	12.0	8.9	9.1	1.5	0.0	
SO4 (mg/L)	9	10/12/11-03/26/19	O	43	43	7.0	12.0	8.9	9.1	1.5	0.0	
Nitrate + (mg/L)	0.39	10/12/11-03/26/19	DUP	43	43	0.31	0.68	0.38	0.37	0.07	0.08	
Nitrate + (mg/L)	0.39	10/12/11-03/26/19	O	43	43	0.31	0.68	0.38	0.37	0.07	0.08	
Al (DIS) (mg/L)	0.041	10/12/11-03/26/19	DUP	43	20	0.004	0.16					
Al (DIS) (mg/L)	0.045	10/12/11-03/26/19	O	43	20	0.004	0.16					
Sb (DIS) (mg/L)	< 0.0005	10/12/11-03/26/19	DUP	42	0	< 0.0005	< .003					
Sb (DIS) (mg/L)	< 0.0005	10/12/11-03/26/19	O	42	0	< 0.0005	< .003					
As (DIS) (mg/L)	< 0.001	10/12/11-03/26/19	DUP	42	0	< 0.001	< .003					
As (DIS) (mg/L)	< 0.001	10/12/11-03/26/19	O	42	0	< 0.001	< .003					
Ba (DIS) (mg/L)	0.186	10/12/11-03/26/19	DUP	42	42	0.168	0.217	0.191	0.191	0.009	0.529	
Ba (DIS) (mg/L)	0.188	10/12/11-03/26/19	O	42	42	0.168	0.217	0.191	0.191	0.009	0.307	
Be (DIS) (mg/L)	< 0.0008	10/12/11-03/26/19	DUP	42	0	< 0.0008	< .001					
Be (DIS) (mg/L)	< 0.0008	10/12/11-03/26/19	O	42	0	< 0.0008	< .001					
Cd (DIS) (mg/L)	< 0	10/12/11-03/26/19	DUP	42	0	< 0	< .00008					
Cd (DIS) (mg/L)	< 0	10/12/11-03/26/19	O	42	0	< 0	< .00008					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Cr (DIS) (mg/L)	< 0.01	10/12/11-03/26/19	O	42	0	< 0	< .01					
Cr (DIS) (mg/L)	< 0.01	10/12/11-03/26/19	DUP	42	0	< 0	< .01					
Co (DIS) (mg/L)	< 0.01	10/12/11-03/26/19	DUP	42	0	< 0.01	< .01					
Co (DIS) (mg/L)	< 0.01	10/12/11-03/26/19	O	42	0	< 0.01	< .01					
Cu (DIS) (mg/L)	< 0.002	10/12/11-03/26/19	DUP	42	0	< 0.001	< .002					
Cu (DIS) (mg/L)	< 0.002	10/12/11-03/26/19	O	42	0	< 0.001	< .002					
Fe (DIS) (mg/L)	0.03	10/12/11-03/26/19	DUP	42	15	< 0.02	0.19					
Fe (DIS) (mg/L)	0.03	10/12/11-03/26/19	O	42	15	< 0.02	0.19					
Pb (DIS) (mg/L)	< 0.0003	10/12/11-03/26/19	O	42	1	< 0.0003	< .0005					
Pb (DIS) (mg/L)	< 0.0003	10/12/11-03/26/19	DUP	42	1	< 0.0003	< .0005					
Mn (DIS) (mg/L)	< 0.005	10/12/11-03/26/19	DUP	42	7	< 0.001	0.102					
Mn (DIS) (mg/L)	< 0.005	10/12/11-03/26/19	O	42	7	< 0.001	0.102					
Hg (DIS) (ug/L)	< 0.005	10/12/11-03/26/19	O	41	1	< 0	< .005					
Hg (DIS) (ug/L)	< 0.005	10/12/11-03/26/19	DUP	41	1	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	10/12/11-03/26/19	O	42	0	< 0.001	< .005					
Mo (DIS) (mg/L)	< 0.002	10/12/11-03/26/19	DUP	42	0	< 0.001	< .005					
Ni (DIS) (mg/L)	< 0.001	10/12/11-03/26/19	O	42	1	< 0.001	< .01					
Ni (DIS) (mg/L)	< 0.001	10/12/11-03/26/19	DUP	42	1	< 0.001	< .01					
Se (DIS) (mg/L)	< 0.0002	10/12/11-03/26/19	DUP	42	12	< 0.0002	< .001					
Se (DIS) (mg/L)	< 0.0002	10/12/11-03/26/19	O	42	12	< 0.0002	< .001					
Ag (DIS) (mg/L)	< 0.0002	10/12/11-03/26/19	DUP	42	0	< 0.0002	< .0005					
Ag (DIS) (mg/L)	< 0.0002	10/12/11-03/26/19	O	42	0	< 0.0002	< .0005					
Sr (DIS) (mg/L)	0.074	10/12/11-03/26/19	DUP	42	40	0.065	< .1	0.073	0.073	0.006	0.118	
Sr (DIS) (mg/L)	0.0734	10/12/11-03/26/19	O	42	40	0.0654	< .1	0.0733	0.0729	0.0063	0.0169	
Tl (DIS) (mg/L)	0.0005	10/12/11-03/26/19	O	42	42	0.0004	0.0007	0.0005	0.0005	0.0001	0.0109	
Tl (DIS) (mg/L)	0.0005	10/12/11-03/26/19	DUP	42	42	0.0004	0.0007	0.0005	0.0005	0.0001	0.0109	
U (DIS) (mg/L)	0.0004	10/12/11-03/26/19	DUP	42	12	< 0.0003	< .008					
U (DIS) (mg/L)	0.0004	10/12/11-03/26/19	O	42	12	< 0.0003	< .008					
Zn (DIS) (mg/L)	< 0.002	10/12/11-03/26/19	O	42	7	0.001	< .01					
Zn (DIS) (mg/L)	< 0.002	10/12/11-03/26/19	DUP	42	7	0.001	< .01					

SAMPLE NO BBC-1903-123 LAB NO: H19030475-008 STATION:SP-7

PARAMETER	03/27/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	2.46	03/26/15-03/27/19	O	47	47	2.3	10.98	3.72	3.54	1.62	0.78

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

pH Fld (s.u.)	7.1	03/26/15-03/27/19	O	46	46	6.2	8.2	7.4	7.4	0.3	0.9	
SC Fld (umhos/cm)	341	03/26/15-03/27/19	O	47	47	196.0	354.0	320.7	330	28.8	0.7	
Flow (Gallons Per Min)	13.02	03/26/15-03/27/19	O	40	40	6.7	136.0	17.9	15.3	25.39	0.19	
Water Temp (Deg C)	6.6	03/26/15-03/27/19	O	46	46	5.1	7.4	6.5	6.6	0.6	0.2	
TDS (mg/L)	186	03/26/15-03/27/19	O	47	47	173.0	200.0	187.1	187	6.8	0.2	
TSS (mg/L)	< 10	03/26/15-03/27/19	O	47	7	< 4	146.0					
Tot Alk (mg/L)	170	03/26/15-03/27/19	O	47	47	160.0	170.0	166.3	170	4.7	0.8	H
Ca (mg/L)	45	03/26/15-03/27/19	O	47	47	40.0	46.0	42.9	43	1.4	1.5	
Chloride (mg/L)	2	03/26/15-03/27/19	O	47	47	1.0	2.0	1.7	2	0.3	0.8	H
F (mg/L)	0.3	03/26/15-03/27/19	O	47	47	0.3	0.4	0.3	0.3	0	0.0	L
Tot Hard (mg/L)	175	03/26/15-03/27/19	O	47	47	153.0	178.0	168.1	169	5.5	1.3	
Mg (mg/L)	15	03/26/15-03/27/19	O	47	47	13.0	16.0	14.8	15	0.6	0.4	
K (mg/L)	3	03/26/15-03/27/19	O	47	47	2.0	3.0	2.7	3	0.4	0.7	H
Na (mg/L)	5	03/26/15-03/27/19	O	47	47	4.0	5.0	4.7	5	0.5	0.6	H
SO4 (mg/L)	11	03/26/15-03/27/19	O	47	47	7.0	12.0	9.6	10	1.1	1.3	
Nitrate + (mg/L)	0.31	03/26/15-03/27/19	O	47	47	0.27	0.41	0.31	0.31	0.02	0.04	
Al (DIS) (mg/L)	< 0.009	03/26/15-03/27/19	O	47	2	< 0.009	0.311					
Sb (DIS) (mg/L)	< 0.0005	03/26/15-03/27/19	O	46	0	< 0.0005	< 0 .0005					
As (DIS) (mg/L)	0.004	03/26/15-03/27/19	O	46	46	0.003	0.004	0.004	0.004	0	0.0	H
Ba (DIS) (mg/L)	0.115	03/26/15-03/27/19	O	46	46	0.1	0.122	0.112	0.112	0.005	0.669	
Be (DIS) (mg/L)	< 0.0008	03/26/15-03/27/19	O	46	0	< 0.0008	< 0 .0008					
Cd (DIS) (mg/L)	< 0	03/26/15-03/27/19	O	46	0	< 0	< .00003					
Cr (DIS) (mg/L)	< 0.01	03/26/15-03/27/19	O	46	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	03/26/15-03/27/19	O	46	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	03/26/15-03/27/19	O	46	2	< 0.002	0.015					
Fe (DIS) (mg/L)	< 0.02	03/26/15-03/27/19	O	46	4	< 0.02	0.36					
Pb (DIS) (mg/L)	< 0.0003	03/26/15-03/27/19	O	46	1	< 0.0003	0.0006					
Mn (DIS) (mg/L)	< 0.005	03/26/15-03/27/19	O	46	1	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	03/26/15-03/27/19	O	46	1	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	03/26/15-03/27/19	O	46	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	03/26/15-03/27/19	O	46	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	0.0003	03/26/15-03/27/19	O	46	42	0.0002	< .0004	0.0003	0.0003	0.0001	0.1408	
Ag (DIS) (mg/L)	< 0.0002	03/26/15-03/27/19	O	46	0	< 0.0002	< 0 .0002					
Sr (DIS) (mg/L)	0.17	03/26/15-03/27/19	O	46	46	0.15	0.18	0.17	0.17	0.01	0.41	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Tl (DIS) (mg/L)	0.0011	03/26/15-03/27/19	O	46	46	0.0007	0.0011	0.001	0.001	0.0001	1.3357	H
U (DIS) (mg/L)	0.001	03/26/15-03/27/19	O	46	5	0.001	< .008					
Zn (DIS) (mg/L)	< 0.002	03/26/15-03/27/19	O	46	2	< 0.002	0.003					

SAMPLE NO BBC-1903-120 LAB NO: H19030477-003 STATION:SW-1

PARAMETER	03/27/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	11.47	05/24/11-03/27/19	O	74	74	3.91	15.0	10.95	10.89	1.94	0.27	
pH Fld (s.u.)	7.86	05/24/11-03/27/19	O	73	73	5.3	8.71	7.82	8.03	0.66	0.06	
SC Fld (umhos/cm)	309	05/24/11-03/27/19	O	74	74	176.0	363.0	286.2	311	52.4	0.4	
Water Temp (Deg C)	0.5	05/24/11-03/27/19	O	74	74	-1.0	14.5	0.5	3.4	4.8	0.0	
TDS (mg/L)	180	05/24/11-03/27/19	O	71	71	107.0	227.0	169.8	180	27.1	0.4	
TSS (mg/L)	4	05/30/12-03/27/19	O	67	25	< 4	43.0					
Tot Alk (mg/L)	150	05/24/11-03/27/19	O	71	71	87.0	200.0	153.6	170	30.3	0.1	
Ca (mg/L)	43	05/24/11-03/27/19	O	71	71	23.0	55.0	42.5	46	8.6	0.1	
Chloride (mg/L)	4	05/24/11-03/27/19	O	71	70	1.0	5.0	1.4	1	0.7	3.8	*
F (mg/L)	< 0.1	05/24/11-03/27/19	O	71	22	< 0.1	0.2					
Tot Hard (mg/L)	156	05/24/11-03/27/19	O	71	70	< 7	199.0	145.6	164	35	0.3	
Mg (mg/L)	12	05/24/11-03/27/19	O	71	71	6.0	15.0	11.2	12	2.4	0.3	
K (mg/L)	3	05/24/11-03/27/19	O	71	68	1.0	3.0	1.1	1	0.5	3.8	*H
Na (mg/L)	3	05/24/11-03/27/19	O	71	71	1.0	3.0	2.2	2	0.5	1.7	H
SO4 (mg/L)	7	05/24/11-03/27/19	O	71	71	2.0	18.0	5.2	5	2.1	0.9	
Nitrate + (mg/L)	0.09	05/24/11-03/27/19	O	71	34	< 0.01	0.15					
P (mg/L)	0.05	05/16/14-03/27/19	O	57	53	< 0	0.09	0.01	0.01	0.02	1.88	
Total Pers (mg/L)	0.48	04/29/15-03/27/19	O	45	41	< 0	1.12	0.13	0.15	0.17	2.07	
Al (DIS) (mg/L)	0.03	05/24/11-03/27/19	O	71	26	< 0.01	0.33					
Sb (TRC) (mg/L)	< 0.0005	05/24/11-03/27/19	O	71	0	< 0.0005	< .005					
As (TRC) (mg/L)	< 0.001	05/24/11-03/27/19	O	71	12	< 0.001	< .003					
Ba (TRC) (mg/L)	0.106	05/24/11-03/27/19	O	71	71	0.083	0.127	0.104	0.104	0.009	0.19	
Be (TRC) (mg/L)	< 0.0008	05/24/11-03/27/19	O	71	0	< 0.0008	< .001					
Cd (TRC) (mg/L)	< 0	05/24/11-03/27/19	O	71	5	< 0	0.0002					
Cr (TRC) (mg/L)	< 0.01	05/24/11-03/27/19	O	71	2	< 0	< .01					
Co (TRC) (mg/L)	< 0.01	05/24/11-03/27/19	O	71	0	< 0.01	< .01					
Cu (TRC) (mg/L)	< 0.002	05/24/11-03/27/19	O	71	5	< 0.001	0.003					
Fe (TRC) (mg/L)	0.3	05/24/11-03/27/19	O	71	71	0.1	1.9	0.2	0.2	0.4	0.2	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Pb (TRC) (mg/L)	< 0.0003	05/24/11-03/27/19	O	71	13	< 0.0003	0.0015					
Mn (TRC) (mg/L)	0.021	05/24/11-03/27/19	O	71	71	0.009	0.053	0.017	0.016	0.011	0.346	
Hg (TRC) (ug/L)	0.007	05/24/11-03/27/19	O	71	11	< 0	0.007					
Mo (TRC) (mg/L)	< 0.002	05/24/11-03/27/19	O	71	0	< 0.001	< .005					
Ni (TRC) (mg/L)	< 0.001	05/24/11-03/27/19	O	71	10	< 0.001	< .01					
Se (TRC) (mg/L)	< 0.0002	05/24/11-03/27/19	O	71	0	< 0.0002	< .001					
Ag (TRC) (mg/L)	< 0.0002	05/24/11-03/27/19	O	71	0	< 0.0002	< .0005					
Sr (TRC) (mg/L)	0.113	05/24/11-03/27/19	O	71	68	0.078	0.147	0.116	0.119	0.016	0.192	
Tl (TRC) (mg/L)	< 0.0002	05/24/11-03/27/19	O	71	0	< 0.0002	: 0 .0002					
U (TRC) (mg/L)	0.0003	05/24/11-03/27/19	O	71	12	< 0.0003	< .008					
Zn (TRC) (mg/L)	< 0.002	05/24/11-03/27/19	O	71	24	< 0.002	< .01					

SAMPLE NO BBC-1903-115 LAB NO: z

STATION:SW-10

03/26/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	10.32	06/24/15-11/17/15	OBS	2	2	8.74	11.02	9.81	9.88	2.29	0.22	
pH Fld (s.u.)	8.1	06/24/15-11/17/15	OBS	2	2	8.4	8.5	8.5	8.5	0.5	0.7	L
SC Fld (umhos/cm)	238	06/24/15-11/17/15	OBS	2	2	413.0	419.0	416.0	416	39.7	4.5	*L
Water Temp (Deg C)	0.41	06/24/15-11/17/15	OBS	2	2	0.02	13.9	0.53	6.96	6.38	0.02	

SAMPLE NO BBC-1903-105 LAB NO: H19030477-001

STATION:SW-11

03/26/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	10.92	05/25/11-03/26/19	O	32	32	7.03	15.4	10.91	11.2	1.88	0.01	
pH Fld (s.u.)	8.23	05/25/11-03/26/19	O	32	32	7.45	8.69	8.2	8.23	0.29	0.09	
SC Fld (umhos/cm)	343	05/25/11-03/26/19	O	32	32	312.0	497.0	399.9	406.5	42.3	1.3	
Water Temp (Deg C)	0.1	05/25/11-03/26/19	O	32	32	-0.4	16.3	0.6	4.6	5.6	0.1	
TDS (mg/L)	215	05/25/11-03/26/19	O	32	32	166.0	282.0	228.9	233.5	24.5	0.6	
TSS (mg/L)	6	05/29/12-03/26/19	O	28	12	< 4	68.0					
Tot Alk (mg/L)	170	05/25/11-03/26/19	O	32	32	160.0	250.0	202.4	210	20.4	1.6	
Ca (mg/L)	44	05/25/11-03/26/19	O	32	32	36.0	60.0	49.5	51.5	5.8	1.0	
Chloride (mg/L)	1	05/25/11-03/26/19	O	32	25	< 1	2.0	1.2	1	0.4	0.4	L
F (mg/L)	0.2	05/25/11-03/26/19	O	32	32	0.1	0.2	0.2	0.2	0	0.0	H
Tot Hard (mg/L)	193	05/25/11-03/26/19	O	32	32	156.0	267.0	215.9	225.5	26.9	0.9	
Mg (mg/L)	20	05/25/11-03/26/19	O	32	32	16.0	29.0	22.4	23.5	3.2	0.7	
K (mg/L)	2	05/25/11-03/26/19	O	32	30	1.0	2.0	1.1	1	0.3	3.0	*H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Na (mg/L)	2	05/25/11-03/26/19	O	32	32	2.0	3.0	2.5	3	0.5	1.1	L
SO4 (mg/L)	25	05/25/11-03/26/19	O	32	32	9.0	46.0	19.5	20.5	7.9	0.7	
Nitrate + (mg/L)	0.19	05/25/11-03/26/19	O	32	29	0.01	0.24	0.06	0.06	0.07	1.9	
P (mg/L)	0.046	06/10/14-03/26/19	O	21	21	0.009	0.06	0.024	0.024	0.014	1.599	
Total Pers (mg/L)	0.47	06/24/15-03/26/19	O	16	16	0.09	0.51	0.21	0.2	0.12	2.16	
Al (DIS) (mg/L)	0.014	05/25/11-03/26/19	O	32	7	< 0.009	1.36					
Sb (TRC) (mg/L)	< 0.0005	05/25/11-03/26/19	O	31	0	< 0.0005	< .005					
As (TRC) (mg/L)	< 0.001	05/25/11-03/26/19	O	31	2	< 0.001	< .003					
Ba (TRC) (mg/L)	0.101	05/25/11-03/26/19	O	31	31	0.09	0.13	0.104	0.103	0.01	0.313	
Be (TRC) (mg/L)	< 0.0008	05/25/11-03/26/19	O	31	0	< 0.0008	< .001					
Cd (TRC) (mg/L)	< 0	05/25/11-03/26/19	O	31	3	< 0	< .00008					
Cr (TRC) (mg/L)	< 0.01	05/25/11-03/26/19	O	31	0	< 0	< .01					
Co (TRC) (mg/L)	< 0.01	05/25/11-03/26/19	O	31	0	< 0.01	< .01					
Cu (TRC) (mg/L)	< 0.002	05/25/11-03/26/19	O	31	5	0.001	0.003					
Fe (TRC) (mg/L)	0.32	05/25/11-03/26/19	O	31	31	0.04	2.1	0.23	0.25	0.43	0.21	
Pb (TRC) (mg/L)	0.0003	05/25/11-03/26/19	O	31	10	< 0.0003	0.0031					
Mn (TRC) (mg/L)	0.013	05/25/11-03/26/19	O	31	20	< 0.005	0.076	0.01	0.007	0.016	0.178	
Hg (TRC) (ug/L)	< 0.005	05/25/11-03/26/19	O	31	4	< 0	< .005					
Mo (TRC) (mg/L)	< 0.002	05/25/11-03/26/19	O	31	0	< 0.001	< .005					
Ni (TRC) (mg/L)	< 0.001	05/25/11-03/26/19	O	31	3	< 0.001	< .01					
Se (TRC) (mg/L)	< 0.0002	05/25/11-03/26/19	O	31	4	< 0.0002	< .001					
Ag (TRC) (mg/L)	< 0.0002	05/25/11-03/26/19	O	31	0	< 0.0002	< .0005					
Sr (TRC) (mg/L)	0.136	05/25/11-03/26/19	O	31	31	0.1	0.2	0.167	0.17	0.024	1.287	
Tl (TRC) (mg/L)	< 0.0002	05/25/11-03/26/19	O	31	0	< 0.0002	< 0 .0002					
U (TRC) (mg/L)	0.001	05/25/11-03/26/19	O	31	10	0.001	< .008					
Zn (TRC) (mg/L)	0.002	05/25/11-03/26/19	O	31	18	< 0.002	0.016	0.004	0.003	0.004	0.562	L

SAMPLE NO BBC-1903-129 LAB NO: H19030548-005 STATION:SW-2

03/28/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	11.06	05/24/11-03/28/19	O	74	74	6.35	16.18	11.04	10.94	1.72	0.01
pH Fld (s.u.)	8.14	05/24/11-03/28/19	O	73	73	0.0	8.73	6.76	8.06	1.02	1.35
SC Fld (umhos/cm)	322	05/24/11-03/28/19	O	74	74	156.0	388.0	278.9	306	53.9	0.8
Water Temp (Deg C)	0.1	05/24/11-03/28/19	O	74	74	-1.0	15.8	0.2	3	4.9	0.0
TDS (mg/L)	181	05/24/11-03/28/19	O	71	71	112.0	223.0	165.5	173	25.2	0.6

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

TSS (mg/L)	4	05/30/12-03/28/19	O	67	19	4.0	105.0					
Tot Alk (mg/L)	160	05/24/11-03/28/19	O	71	71	80.0	200.0	151.0	160	27.3	0.3	
Ca (mg/L)	48	05/24/11-03/28/19	O	71	71	21.0	58.0	42.7	46	8.1	0.7	
Chloride (mg/L)	3	05/24/11-03/28/19	O	71	69	< 1	5.0	1.3	1	0.7	2.4	
F (mg/L)	< 0.1	05/24/11-03/28/19	O	71	1	< 0.1	0.4					
Tot Hard (mg/L)	170	05/24/11-03/28/19	O	71	70	< 7	202.0	144.5	164	32.8	0.8	
Mg (mg/L)	12	05/24/11-03/28/19	O	71	71	5.0	15.0	10.8	12	2.1	0.6	
K (mg/L)	1	05/24/11-03/28/19	O	71	66	1.0	2.0	1.0	1	0.1	0.1	L
Na (mg/L)	3	05/24/11-03/28/19	O	71	71	1.0	3.0	2.0	2	0.3	3.5	*H
SO4 (mg/L)	7	05/24/11-03/28/19	O	71	71	2.0	9.0	5.0	5	1.6	1.3	
Nitrate + (mg/L)	0.07	05/24/11-03/28/19	O	71	35	< 0.01	0.12					
P (mg/L)	0.012	05/16/14-03/28/19	O	57	49	< 0.003	0.182	0.01	0.008	0.023	0.108	
Total Pers (mg/L)	0.17	04/29/15-03/28/19	O	45	39	< 0	1.39	0.1	0.1	0.25	0.26	
Al (DIS) (mg/L)	0.033	05/24/11-03/28/19	O	71	31	< 0.009	0.39					
Sb (TRC) (mg/L)	< 0.0005	05/24/11-03/28/19	O	71	0	< 0.0005	< .005					
As (TRC) (mg/L)	< 0.001	05/24/11-03/28/19	O	71	1	< 0.001	< .003					
Ba (TRC) (mg/L)	0.1	05/24/11-03/28/19	O	71	71	0.1	0.1	0.1	0.1	0	0.0	
Be (TRC) (mg/L)	< 0.0008	05/24/11-03/28/19	O	71	0	< 0.0008	< .001					
Cd (TRC) (mg/L)	< 0	05/24/11-03/28/19	O	71	3	< 0	< .00008					
Cr (TRC) (mg/L)	< 0.01	05/24/11-03/28/19	O	71	1	< 0	< .01					
Co (TRC) (mg/L)	< 0.01	05/24/11-03/28/19	O	71	0	< 0.01	< .01					
Cu (TRC) (mg/L)	< 0.002	05/24/11-03/28/19	O	71	5	< 0.001	0.004					
Fe (TRC) (mg/L)	0.28	05/24/11-03/28/19	O	71	71	0.09	2.49	0.2	0.15	0.34	0.23	
Pb (TRC) (mg/L)	< 0.0003	05/24/11-03/28/19	O	71	14	< 0.0003	0.0017					
Mn (TRC) (mg/L)	0.015	05/24/11-03/28/19	O	71	71	0.006	0.116	0.011	0.01	0.013	0.296	
Hg (TRC) (ug/L)	< 0.005	05/24/11-03/28/19	O	71	11	< 0	< .005					
Mo (TRC) (mg/L)	< 0.002	05/24/11-03/28/19	O	71	0	< 0.001	< .005					
Ni (TRC) (mg/L)	< 0.001	05/24/11-03/28/19	O	71	11	< 0.001	< .01					
Se (TRC) (mg/L)	< 0.0002	05/24/11-03/28/19	O	71	0	< 0.0002	< .001					
Ag (TRC) (mg/L)	< 0.0002	05/24/11-03/28/19	O	71	0	< 0.0002	< .0005					
Sr (TRC) (mg/L)	0.126	05/24/11-03/28/19	O	71	69	0.082	0.15	0.119	0.123	0.015	0.493	
Tl (TRC) (mg/L)	< 0.0002	05/24/11-03/28/19	O	71	0	< 0.0002	< 0 .0002					
U (TRC) (mg/L)	0.0004	05/24/11-03/28/19	O	71	10	< 0.0003	< .008					
Zn (TRC) (mg/L)	< 0.002	05/24/11-03/28/19	O	71	20	< 0.002	0.014					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: May 8, 2019

SAMPLE NO BBC-1903-117 LAB NO: H19030477-002 STATION:SW-3

PARAMETER	03/26/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	8.93	05/24/11-03/26/19	O	30	30	5.95	12.87	9.91	9.85	1.56	0.63	
pH Fld (s.u.)	8.01	05/24/11-03/26/19	O	30	30	7.92	8.7	8.27	8.28	0.17	1.51	
SC Fld (umhos/cm)	290	05/24/11-03/26/19	O	30	30	269.0	423.0	373.6	388.5	37.7	2.2	
Water Temp (Deg C)	2.2	05/24/11-03/26/19	O	30	30	0.0	14.5	2.9	8.4	4.8	0.1	
TDS (mg/L)	195	05/24/11-03/26/19	O	29	29	152.0	255.0	216.4	221	17.4	1.2	
TSS (mg/L)	< 4	05/30/12-03/26/19	O	26	10	< 4	14.0					
Tot Alk (mg/L)	150	05/24/11-03/26/19	O	29	29	150.0	210.0	194.8	200	14.8	3.0	*L
Ca (mg/L)	37	05/24/11-03/26/19	O	29	29	31.0	52.0	45.6	47	4.2	2.1	
Chloride (mg/L)	3	05/24/11-03/26/19	O	29	27	1.0	3.0	1.5	1.9	0.6	2.5	H
F (mg/L)	0.1	05/24/11-03/26/19	O	29	29	0.1	0.2	0.2	0.2	0	0.0	L
Tot Hard (mg/L)	168	05/24/11-03/26/19	O	29	29	139.0	234.0	205.4	215	19.8	1.9	
Mg (mg/L)	19	05/24/11-03/26/19	O	29	29	15.0	25.0	22.3	23	2.3	1.4	
K (mg/L)	4	05/24/11-03/26/19	O	29	24	1.0	4.0	1.1	1	0.5	5.9	*H
Na (mg/L)	2	05/24/11-03/26/19	O	29	29	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	19	05/24/11-03/26/19	O	29	29	5.0	26.0	15.7	17	5.2	0.6	
Nitrate + (mg/L)	< 0.01	05/24/11-03/26/19	O	29	24	< 0.01	0.12	0.04	0.05	0.03	0.92	L
P (mg/L)	0.094	06/10/14-03/26/19	O	20	19	0.004	0.094	0.013	0.014	0.017	4.738	*H
Total Pers (mg/L)	0.3	06/24/15-03/26/19	O	17	16	< 0	0.6	0.1	0.1	0.1	1.6	
Al (DIS) (mg/L)	< 0.009	05/24/11-03/26/19	O	29	4	< 0.009	0.07					
Sb (TRC) (mg/L)	< 0.0005	05/24/11-03/26/19	O	29	0	< 0.0005	< .005					
As (TRC) (mg/L)	< 0.001	05/24/11-03/26/19	O	29	0	< 0.001	< .003					
Ba (TRC) (mg/L)	0.116	05/24/11-03/26/19	O	29	29	0.116	0.176	0.148	0.152	0.015	2.116	L
Be (TRC) (mg/L)	< 0.0008	05/24/11-03/26/19	O	29	0	< 0.0008	< .001					
Cd (TRC) (mg/L)	< 0	05/24/11-03/26/19	O	29	0	< 0	< .00008					
Cr (TRC) (mg/L)	< 0.01	05/24/11-03/26/19	O	29	0	< 0	< .01					
Co (TRC) (mg/L)	< 0.01	05/24/11-03/26/19	O	29	0	< 0.01	< .01					
Cu (TRC) (mg/L)	< 0.002	05/24/11-03/26/19	O	29	4	0.001	0.003					
Fe (TRC) (mg/L)	0.06	05/24/11-03/26/19	O	29	29	0.04	1.08	0.15	0.15	0.22	0.4	
Pb (TRC) (mg/L)	< 0.0003	05/24/11-03/26/19	O	29	15	< 0.0003	0.0031	0.0005	0.0003	0.0006	0.2766	L
Mn (TRC) (mg/L)	< 0.005	05/24/11-03/26/19	O	29	11	< 0.005	0.2					
Hg (TRC) (ug/L)	0.006	05/24/11-03/26/19	O	29	3	< 0	0.006					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Mo (TRC) (mg/L)	< 0.002	05/24/11-03/26/19	O	29	0	< 0.001	< .005					
Ni (TRC) (mg/L)	< 0.001	05/24/11-03/26/19	O	29	0	< 0.001	< .01					
Se (TRC) (mg/L)	< 0.0002	05/24/11-03/26/19	O	29	3	< 0.0002	< .001					
Ag (TRC) (mg/L)	< 0.0002	05/24/11-03/26/19	O	29	0	< 0.0002	< .0005					
Sr (TRC) (mg/L)	0.0938	05/24/11-03/26/19	O	29	26	0.0838	0.123	0.1061	0.105	0.0098	1.2514	
Tl (TRC) (mg/L)	< 0.0002	05/24/11-03/26/19	O	29	3	< 0.0002	0.0004					
U (TRC) (mg/L)	0.0006	05/24/11-03/26/19	O	29	9	0.0005	< .008					
Zn (TRC) (mg/L)	< 0.002	05/24/11-03/26/19	O	29	16	< 0.002	0.033	0.004	0.003	0.006	0.28	L

SAMPLE NO BBC-1903-124 LAB NO: H19030548-001 STATION:SW-6

03/27/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	10.38	05/25/11-03/27/19	O	30	30	5.82	14.18	9.75	10.01	1.81	0.35	
pH Fld (s.u.)	7.72	05/25/11-03/27/19	O	30	30	6.67	8.68	7.99	8.1	0.44	0.61	
SC Fld (umhos/cm)	137	05/25/11-03/27/19	O	30	30	137.0	433.0	374.9	396	56.2	4.2	*L
Water Temp (Deg C)	0.9	05/25/11-03/27/19	O	30	30	0.0	18.3	1.9	6.5	5.9	0.2	
TDS (mg/L)	100	05/25/11-03/27/19	O	30	30	100.0	254.0	216.1	223.5	27.2	4.3	*L
TSS (mg/L)	16	05/30/12-03/27/19	O	26	20	4.0	107.0	12.8	10	29.5	0.1	
Tot Alk (mg/L)	65	05/25/11-03/27/19	O	30	30	65.0	240.0	202.7	215	31	4.4	*L
Ca (mg/L)	15	05/25/11-03/27/19	O	30	30	15.0	54.0	47.2	50	7.7	4.2	*L
Chloride (mg/L)	< 1	05/25/11-03/27/19	O	30	7	< 1	2.0					
F (mg/L)	< 0.1	05/25/11-03/27/19	O	30	27	0.1	0.2	0.2	0.2	0	0.0	L
Tot Hard (mg/L)	65	05/25/11-03/27/19	O	30	30	65.0	239.0	202.8	216.5	33.8	4.1	*L
Mg (mg/L)	7	05/25/11-03/27/19	O	30	30	7.0	26.0	20.7	22	3.6	3.8	*L
K (mg/L)	5	05/25/11-03/27/19	O	30	17	1.0	5.0	1.1	1	0.8	4.8	*H
Na (mg/L)	< 1	05/25/11-03/27/19	O	30	29	< 1	3.0	2.8	3	0.4	4.4	*L
SO4 (mg/L)	3	05/25/11-03/27/19	O	30	30	3.0	34.0	10.7	11	5.3	1.4	L
Nitrate + (mg/L)	0.02	05/25/11-03/27/19	O	30	27	< 0.01	0.11	0.04	0.05	0.03	0.71	
P (mg/L)	0.237	06/11/14-03/27/19	O	19	19	0.01	0.237	0.023	0.02	0.047	4.55	*H
Total Pers (mg/L)	0.78	06/24/15-03/27/19	O	14	14	0.1	0.78	0.2	0.18	0.18	3.22	*H
Al (DIS) (mg/L)	0.02	05/25/11-03/27/19	O	30	2	< 0.01	< .03					
Sb (TRC) (mg/L)	< 0.0005	05/25/11-03/27/19	O	30	0	< 0.0005	< .005					
As (TRC) (mg/L)	0.001	05/25/11-03/27/19	O	30	2	< 0.001	< .003					
Ba (TRC) (mg/L)	0.057	05/25/11-03/27/19	O	30	30	0.057	0.247	0.127	0.131	0.029	2.416	L
Be (TRC) (mg/L)	< 0.0008	05/25/11-03/27/19	O	30	0	< 0.0008	< .001					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Cd (TRC) (mg/L)	0.00003	05/25/11-03/27/19	O	30	4	< 0	0.0001					
Cr (TRC) (mg/L)	< 0.01	05/25/11-03/27/19	O	30	0	< 0	< .01					
Co (TRC) (mg/L)	< 0.01	05/25/11-03/27/19	O	30	0	< 0.01	< .01					
Cu (TRC) (mg/L)	0.002	05/25/11-03/27/19	O	30	3	< 0.001	0.003					
Fe (TRC) (mg/L)	0.73	05/25/11-03/27/19	O	30	30	0.05	3.04	0.36	0.37	0.7	0.53	
Pb (TRC) (mg/L)	0.0006	05/25/11-03/27/19	O	30	12	< 0.0003	0.003					
Mn (TRC) (mg/L)	0.026	05/25/11-03/27/19	O	30	28	< 0.005	0.098	0.017	0.018	0.022	0.389	
Hg (TRC) (ug/L)	0.034	05/25/11-03/27/19	O	30	4	< 0	0.034					
Mo (TRC) (mg/L)	< 0.002	05/25/11-03/27/19	O	30	0	< 0.001	< .005					
Ni (TRC) (mg/L)	< 0.001	05/25/11-03/27/19	O	30	3	< 0.001	< .01					
Se (TRC) (mg/L)	< 0.0002	05/25/11-03/27/19	O	30	8	< 0.0002	< .001					
Ag (TRC) (mg/L)	< 0.0002	05/25/11-03/27/19	O	30	0	< 0.0002	< .0005					
Sr (TRC) (mg/L)	0.0476	05/25/11-03/27/19	O	30	30	0.0476	0.329	0.1573	0.1705	0.0437	2.5094	L
Tl (TRC) (mg/L)	< 0.0002	05/25/11-03/27/19	O	30	0	< 0.0002	: 0 .0002					
U (TRC) (mg/L)	< 0.0002	05/25/11-03/27/19	O	30	10	< 0.0002	< .008					
Zn (TRC) (mg/L)	0.005	05/25/11-03/27/19	O	30	14	< 0.002	0.03					

SAMPLE NO BBC-1903-110 LAB NO: z — STATION:SW-7

03/26/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Gallons Per Min)	0	11/26/12-09/19/18	OBS	17	17	0.0	54.8	3.5	6.7	19.8	0.2	L

SAMPLE NO BBC-1903-114 LAB NO: z — STATION:SW-9

03/26/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	9.93	N/A	OBS	0							
pH Fld (s.u.)	7.95	N/A	OBS	0							
SC Fld (umhos/cm)	361	N/A	OBS	0							
Flow (Cubic Ft Sec)	0.6	N/A	OBS	0							
Water Temp (Deg C)	1.9	N/A	OBS	0							

SAMPLE NO BBC-1903-130 LAB NO: H19030548-006 — STATION:USGS-SC1

03/28/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	11.21	03/24/14-03/28/19	O	61	61	7.12	16.55	11.15	11.16	1.6	0.04
pH Fld (s.u.)	8.11	03/24/14-03/28/19	O	60	60	6.67	8.67	7.97	8.16	0.43	0.32

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

SC Fld (umhos/cm)	366	03/24/14-03/28/19	O	61	61	137.0	408.0	325.2	344	50.2	0.8	
Water Temp (Deg C)	0.1	03/24/14-03/28/19	O	61	61	-1.0	13.1	0.3	2.8	4.2	0.1	
TDS (mg/L)	196	03/24/14-03/28/19	O	59	59	134.0	230.0	188.8	195	18.8	0.4	
TSS (mg/L)	4	03/24/14-03/28/19	O	59	16	< 4	38.0					
Tot Alk (mg/L)	180	03/24/14-03/28/19	O	59	59	120.0	220.0	176.3	180	20.6	0.2	
Ca (mg/L)	57	03/24/14-03/28/19	O	59	59	35.0	61.0	50.6	52	5.7	1.1	
Chloride (mg/L)	3	03/24/14-03/28/19	O	59	59	1.0	5.0	1.5	1.5	0.9	1.7	
F (mg/L)	< 0.1	03/24/14-03/28/19	O	59	1	< 0.1	< 0 .1					
Tot Hard (mg/L)	199	03/24/14-03/28/19	O	59	58	< 7	214.0	168.3	185	29	1.1	
Mg (mg/L)	14	03/24/14-03/28/19	O	59	59	8.0	15.0	12.6	13	1.5	0.9	
K (mg/L)	1	03/24/14-03/28/19	O	59	59	1.0	1.0	1.0	1	0	0.0	H
Na (mg/L)	3	03/24/14-03/28/19	O	59	59	2.0	3.0	2.1	2	0.3	3.1	*H
SO4 (mg/L)	7	03/24/14-03/28/19	O	59	59	3.0	8.0	5.7	6	1.4	0.9	
Nitrate + (mg/L)	0.08	03/24/14-03/28/19	O	59	41	< 0.01	0.13	0.03	0.03	0.04	1.25	
P (mg/L)	0.007	05/16/14-03/28/19	O	56	41	0.003	0.05	0.007	0.007	0.008	0.016	
Total Pers (mg/L)	0.14	04/29/15-03/28/19	O	45	35	< 0	1.1	0.08	0.09	0.16	0.36	
Al (DIS) (mg/L)	< 0.009	03/24/14-03/28/19	O	59	17	< 0.009	0.189					
Sb (TRC) (mg/L)	< 0.0005	03/24/14-03/28/19	O	59	0	< 0.0005	: 0 .0005					
As (TRC) (mg/L)	< 0.001	03/24/14-03/28/19	O	59	1	< 0.001	< 0 .001					
Ba (TRC) (mg/L)	0.068	03/24/14-03/28/19	O	59	59	0.06	0.088	0.069	0.068	0.005	0.195	
Be (TRC) (mg/L)	< 0.0008	03/24/14-03/28/19	O	59	0	< 0.0008	: 0 .0008					
Cd (TRC) (mg/L)	< 0	03/24/14-03/28/19	O	59	2	< 0	0.0001					
Cr (TRC) (mg/L)	< 0.01	03/24/14-03/28/19	O	59	0	< 0.01	< .01					
Co (TRC) (mg/L)	< 0.01	03/24/14-03/28/19	O	59	0	< 0.01	< .01					
Cu (TRC) (mg/L)	< 0.002	03/24/14-03/28/19	O	59	1	< 0.002	< 0 .002					
Fe (TRC) (mg/L)	0.19	03/24/14-03/28/19	O	59	59	0.07	1.71	0.17	0.12	0.28	0.08	
Pb (TRC) (mg/L)	< 0.0003	03/24/14-03/28/19	O	59	7	< 0.0003	0.0011					
Mn (TRC) (mg/L)	0.01	03/24/14-03/28/19	O	59	59	0.01	0.08	0.01	0.01	0.01	0.07	
Hg (TRC) (ug/L)	< 0.005	03/24/14-03/28/19	O	59	2	< 0	< .005					
Mo (TRC) (mg/L)	< 0.002	03/24/14-03/28/19	O	59	0	< 0.001	< .002					
Ni (TRC) (mg/L)	< 0.001	03/24/14-03/28/19	O	59	7	< 0.001	0.003					
Se (TRC) (mg/L)	< 0.0002	03/24/14-03/28/19	O	59	0	< 0.0002	< .0004					
Ag (TRC) (mg/L)	< 0.0002	03/24/14-03/28/19	O	59	1	< 0.0002	< .0004					
Sr (TRC) (mg/L)	0.148	03/24/14-03/28/19	O	59	59	0.121	0.16	0.142	0.144	0.009	0.65	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Tl (TRC) (mg/L)	< 0.0002	03/24/14-03/28/19	O	59	0	< 0.0002	: 0 .0002
U (TRC) (mg/L)	0.0005	03/24/14-03/28/19	O	59	6	0.0003	< .008
Zn (TRC) (mg/L)	< 0.002	03/24/14-03/28/19	O	59	17	< 0.002	0.009

SAMPLE NO BBC-1903-222 LAB NO: H19030547-008

STATION:DI-Blank

03/28/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
TDS (mg/L)	< 10	N/A	FB	0							
TDS (mg/L)	< 10	N/A	FB	0							
TDS (mg/L)	< 10	N/A	FB	0							
TSS (mg/L)	< 10	N/A	FB	0							
TSS (mg/L)	< 10	N/A	FB	0							
TSS (mg/L)	< 4	N/A	FB	0							
Tot Alk (mg/L)	< 4	N/A	FB	0							
Tot Alk (mg/L)	< 4	N/A	FB	0							
Tot Alk (mg/L)	< 4	N/A	FB	0							
Ca (mg/L)	< 1	N/A	FB	0							
Ca (mg/L)	< 1	N/A	FB	0							
Ca (mg/L)	< 1	N/A	FB	0							
Chloride (mg/L)	< 1	N/A	FB	0							
Chloride (mg/L)	< 1	N/A	FB	0							
Chloride (mg/L)	< 1	N/A	FB	0							
F (mg/L)	< 0.1	N/A	FB	0							
F (mg/L)	< 0.1	N/A	FB	0							
F (mg/L)	< 0.1	N/A	FB	0							
Tot Hard (mg/L)	< 1	N/A	FB	0							
Tot Hard (mg/L)	< 1	N/A	FB	0							
Tot Hard (mg/L)	< 1	N/A	FB	0							
Mg (mg/L)	< 1	N/A	FB	0							
Mg (mg/L)	< 1	N/A	FB	0							
Mg (mg/L)	< 1	N/A	FB	0							
K (mg/L)	< 1	N/A	FB	0							
K (mg/L)	< 1	N/A	FB	0							
K (mg/L)	< 1	N/A	FB	0							
Na (mg/L)	< 1	N/A	FB	0							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Na (mg/L)	< 1	N/A	FB	0
Na (mg/L)	< 1	N/A	FB	0
SO4 (mg/L)	< 1	N/A	FB	0
SO4 (mg/L)	< 1	N/A	FB	0
SO4 (mg/L)	< 1	N/A	FB	0
Nitrate + (mg/L)	< 0.01	N/A	FB	0
Nitrate + (mg/L)	< 0.01	N/A	FB	0
Nitrate + (mg/L)	< 0.01	N/A	FB	0
P (mg/L)	< 0.003	N/A	FB	0
Total Pers (mg/L)	< 0.04	N/A	FB	0
Al (DIS) (mg/L)	< 0.009	N/A	FB	0
Al (DIS) (mg/L)	< 0.009	N/A	FB	0
Al (DIS) (mg/L)	< 0.009	N/A	FB	0
Sb (DIS) (mg/L)	< 0.0005	N/A	FB	0
Sb (TRC) (mg/L)	< 0.0005	N/A	FB	0
Sb (DIS) (mg/L)	< 0.0005	N/A	FB	0
As (TRC) (mg/L)	< 0.001	N/A	FB	0
As (DIS) (mg/L)	< 0.001	N/A	FB	0
As (DIS) (mg/L)	< 0.001	N/A	FB	0
Ba (DIS) (mg/L)	< 0.003	N/A	FB	0
Ba (DIS) (mg/L)	< 0.003	N/A	FB	0
Ba (TRC) (mg/L)	< 0.003	N/A	FB	0
Be (TRC) (mg/L)	< 0.0008	N/A	FB	0
Be (DIS) (mg/L)	< 0.0008	N/A	FB	0
Be (DIS) (mg/L)	< 0.0008	N/A	FB	0
Cd (DIS) (mg/L)	< 0	N/A	FB	0
Cd (TRC) (mg/L)	< 0	N/A	FB	0
Cd (DIS) (mg/L)	< 0	N/A	FB	0
Cr (DIS) (mg/L)	< 0.01	N/A	FB	0
Cr (DIS) (mg/L)	< 0.01	N/A	FB	0
Cr (TRC) (mg/L)	< 0.01	N/A	FB	0
Co (TRC) (mg/L)	< 0.01	N/A	FB	0
Co (DIS) (mg/L)	< 0.01	N/A	FB	0
Co (DIS) (mg/L)	< 0.01	N/A	FB	0

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Cu (TRC) (mg/L)	< 0.002	N/A	FB	0
Cu (DIS) (mg/L)	< 0.002	N/A	FB	0
Cu (DIS) (mg/L)	< 0.002	N/A	FB	0
Fe (TRC) (mg/L)	< 0.02	N/A	FB	0
Fe (DIS) (mg/L)	< 0.02	N/A	FB	0
Fe (DIS) (mg/L)	< 0.02	N/A	FB	0
Pb (TRC) (mg/L)	< 0.0003	N/A	FB	0
Pb (DIS) (mg/L)	< 0.0003	N/A	FB	0
Pb (DIS) (mg/L)	< 0.0003	N/A	FB	0
Mn (TRC) (mg/L)	< 0.005	N/A	FB	0
Mn (DIS) (mg/L)	< 0.005	N/A	FB	0
Mn (DIS) (mg/L)	< 0.005	N/A	FB	0
Hg (TRC) (ug/L)	< 0.005	N/A	FB	0
Hg (DIS) (ug/L)	< 0.005	N/A	FB	0
Hg (DIS) (ug/L)	< 0.005	N/A	FB	0
Mo (TRC) (mg/L)	< 0.002	N/A	FB	0
Mo (DIS) (mg/L)	< 0.002	N/A	FB	0
Mo (DIS) (mg/L)	< 0.002	N/A	FB	0
Ni (TRC) (mg/L)	< 0.001	N/A	FB	0
Ni (DIS) (mg/L)	< 0.001	N/A	FB	0
Ni (DIS) (mg/L)	0.002	N/A	FB	0
Se (TRC) (mg/L)	< 0.0002	N/A	FB	0
Se (DIS) (mg/L)	< 0.0002	N/A	FB	0
Se (DIS) (mg/L)	< 0.0002	N/A	FB	0
Ag (TRC) (mg/L)	< 0.0002	N/A	FB	0
Ag (DIS) (mg/L)	< 0.0002	N/A	FB	0
Ag (DIS) (mg/L)	< 0.0002	N/A	FB	0
Sr (DIS) (mg/L)	< 0.0002	N/A	FB	0
Sr (DIS) (mg/L)	< 0.0002	N/A	FB	0
Sr (TRC) (mg/L)	< 0.0002	N/A	FB	0
Tl (DIS) (mg/L)	< 0.0002	N/A	FB	0
Tl (TRC) (mg/L)	< 0.0002	N/A	FB	0
Tl (DIS) (mg/L)	< 0.0002	N/A	FB	0
U (DIS) (mg/L)	< 0.0002	N/A	FB	0

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

U (DIS) (mg/L)	< 0.0002	N/A	FB	0
U (TRC) (mg/L)	< 0.0002	N/A	FB	0
Zn (TRC) (mg/L)	< 0.002	N/A	FB	0
Zn (DIS) (mg/L)	< 0.002	N/A	FB	0
Zn (DIS) (mg/L)	< 0.002	N/A	FB	0

SAMPLE NO BBC-1903-211 LAB NO: H19030476-012 STATION:MW-10

03/26/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	81.43	03/29/16-03/26/19	O	13	13	64.92	82.88	75.56	77.27	5.37	1.09	
DO (mg/L)	8.1	03/29/16-03/26/19	O	13	13	5.0	9.8	7.2	7.5	1.5	0.6	
EH (Millivolts)	264.41	03/21/18-03/26/19	O	5	5	253.68	297.43	276.58	276.25	18.7	0.65	
pH Fld (s.u.)	7.97	03/29/16-03/26/19	O	13	13	7.56	8.04	7.84	7.87	0.16	0.82	
SC Fld (umhos/cm)	325	03/29/16-03/26/19	O	13	13	314.0	364.0	334.0	337	13.9	0.6	
Water Temp (Deg C)	8.2	03/29/16-03/26/19	O	13	13	5.9	9.7	7.8	8.1	1.1	0.4	
TDS (mg/L)	187	03/29/16-03/26/19	O	13	13	174.0	244.0	194.3	190	17.3	0.4	
TSS (mg/L)	33	03/29/16-03/26/19	O	13	12	< 10	2830.0	100.1	130	758.9	0.1	
Tot Alk (mg/L)	180	03/29/16-03/26/19	O	13	13	170.0	210.0	179.8	180	10	0.0	
Ca (mg/L)	43	03/29/16-03/26/19	O	13	13	35.0	46.0	39.8	39	3.8	0.9	
Chloride (mg/L)	< 1	03/29/16-03/26/19	O	13	3	< 1	4.0					
F (mg/L)	0.2	03/29/16-03/26/19	O	13	13	0.2	0.5	0.3	0.3	0.1	0.9	L
Tot Hard (mg/L)	183	03/29/16-03/26/19	O	13	13	156.0	185.0	170.0	167	10.5	1.2	
Mg (mg/L)	19	03/29/16-03/26/19	O	13	13	16.0	19.0	17.2	17	0.8	2.2	H
K (mg/L)	2	03/29/16-03/26/19	O	13	13	2.0	7.0	2.8	3	1.4	0.6	L
Na (mg/L)	6	03/29/16-03/26/19	O	13	13	6.0	11.0	7.1	7	1.8	0.6	L
SO4 (mg/L)	5	03/29/16-03/26/19	O	13	13	3.0	8.0	4.8	4.7	1.5	0.1	
Nitrate + (mg/L)	0.53	03/29/16-03/26/19	O	13	13	0.46	0.62	0.53	0.53	0.04	0.05	
Al (DIS) (mg/L)	0.019	03/29/16-03/26/19	O	13	13	0.009	3.66	0.085	0.031	1.108	0.059	
Sb (DIS) (mg/L)	< 0.0005	03/29/16-03/26/19	O	13	1	< 0.0005	0.0132					
As (DIS) (mg/L)	< 0.001	03/29/16-03/26/19	O	13	1	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.189	03/29/16-03/26/19	O	13	13	0.135	0.211	0.179	0.189	0.025	0.418	
Be (DIS) (mg/L)	< 0.0008	03/29/16-03/26/19	O	13	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	03/29/16-03/26/19	O	13	1	< 0	0.0001					
Cr (DIS) (mg/L)	< 0.01	03/29/16-03/26/19	O	13	1	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	03/29/16-03/26/19	O	13	0	< 0.01	< 0 .01					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Cu (DIS) (mg/L)	< 0.002	03/29/16-03/26/19	O	13	2	< 0.002	0.01					
Fe (DIS) (mg/L)	< 0.02	03/29/16-03/26/19	O	13	7	< 0.02	3.58	0.09	0.03	1.07	0.06	L
Pb (DIS) (mg/L)	< 0.0003	03/29/16-03/26/19	O	13	4	< 0.0003	0.0021					
Mn (DIS) (mg/L)	< 0.005	03/29/16-03/26/19	O	13	8	< 0.005	0.168	0.015	0.005	0.049	0.2	L
Hg (DIS) (ug/L)	< 0.005	03/29/16-03/26/19	O	13	1	< 0	< .005					
Mo (DIS) (mg/L)	0.005	03/29/16-03/26/19	O	13	13	0.004	0.012	0.007	0.007	0.002	0.825	
Ni (DIS) (mg/L)	< 0.001	03/29/16-03/26/19	O	13	11	< 0.001	0.009	0.002	0.002	0.002	0.473	L
Se (DIS) (mg/L)	< 0.0002	03/29/16-03/26/19	O	13	5	< 0.0002	< .0004					
Ag (DIS) (mg/L)	< 0.0002	03/29/16-03/26/19	O	13	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.956	03/29/16-03/26/19	O	13	13	0.796	1.35	1.081	1.03	0.175	0.715	
Tl (DIS) (mg/L)	< 0.0002	03/29/16-03/26/19	O	13	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0088	03/29/16-03/26/19	O	13	11	0.006	0.02	0.0119	0.015	0.0047	0.6597	
Zn (DIS) (mg/L)	< 0.002	03/29/16-03/26/19	O	13	5	< 0.002	0.015					

SAMPLE NO BBC-1903-210 LAB NO: H19030476-011 STATION:MW-11

03/26/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	34.46	03/29/16-03/26/19	O	13	13	23.38	37.08	32.15	33.63	3.68	0.63	
DO (mg/L)	7.62	03/29/16-03/26/19	O	13	13	5.09	9.1	7.27	7.62	1.16	0.3	
EH (Millivolts)	265.45	03/20/18-03/26/19	O	5	5	255.64	293.82	271.53	265.45	15.16	0.4	
pH Fld (s.u.)	7.77	03/29/16-03/26/19	O	13	13	7.4	7.77	7.65	7.7	0.11	1.1	H
SC Fld (umhos/cm)	319	03/29/16-03/26/19	O	13	13	295.0	393.0	321.4	319	26	0.1	
Water Temp (Deg C)	9.1	03/29/16-03/26/19	O	13	13	6.7	9.1	7.7	7.8	0.6	2.3	H
TDS (mg/L)	182	03/29/16-03/26/19	O	13	13	171.0	238.0	184.8	181	16	0.2	
TSS (mg/L)	21	03/29/16-03/26/19	O	13	12	< 10	501.0	60.7	58	161	0.2	
Tot Alk (mg/L)	170	03/29/16-03/26/19	O	13	13	160.0	180.0	166.8	170	7.4	0.4	
Ca (mg/L)	48	03/29/16-03/26/19	O	13	13	40.0	48.0	43.1	44	2.2	2.2	H
Chloride (mg/L)	< 1	03/29/16-03/26/19	O	13	1	< 1	2.0					
F (mg/L)	< 0.1	03/29/16-03/26/19	O	13	8	< 0.1	< 0 .1	0.1	0.1	0	0.0	H
Tot Hard (mg/L)	172	03/29/16-03/26/19	O	13	13	148.0	172.0	158.4	161	6.5	2.1	H
Mg (mg/L)	12	03/29/16-03/26/19	O	13	13	11.0	15.0	12.2	12	1.2	0.1	
K (mg/L)	2	03/29/16-03/26/19	O	13	13	2.0	2.0	2.0	2	0	0.0	H
Na (mg/L)	6	03/29/16-03/26/19	O	13	13	4.0	21.0	6.7	6	4.3	0.2	
SO4 (mg/L)	6	03/29/16-03/26/19	O	13	13	4.0	31.0	6.7	5	7.1	0.1	
Nitrate + (mg/L)	0.44	03/29/16-03/26/19	O	13	13	0.37	0.53	0.44	0.44	0.05	0.01	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Al (DIS) (mg/L)	0.01	03/29/16-03/26/19	O	13	10	< 0.01	1.5	0.04	0.03	0.42	0.08
Sb (DIS) (mg/L)	< 0.0005	03/29/16-03/26/19	O	13	0	< 0.0005	: 0 .0005				
As (DIS) (mg/L)	< 0.001	03/29/16-03/26/19	O	13	0	< 0.001	< 0 .001				
Ba (DIS) (mg/L)	0.162	03/29/16-03/26/19	O	13	13	0.126	0.183	0.153	0.154	0.013	0.685
Be (DIS) (mg/L)	< 0.0008	03/29/16-03/26/19	O	13	0	< 0.0008	: 0 .0008				
Cd (DIS) (mg/L)	< 0	03/29/16-03/26/19	O	13	0	< 0	: .00003				
Cr (DIS) (mg/L)	< 0.01	03/29/16-03/26/19	O	13	0	< 0.01	< 0 .01				
Co (DIS) (mg/L)	< 0.01	03/29/16-03/26/19	O	13	0	< 0.01	< 0 .01				
Cu (DIS) (mg/L)	< 0.002	03/29/16-03/26/19	O	13	0	< 0.002	< 0 .002				
Fe (DIS) (mg/L)	< 0.02	03/29/16-03/26/19	O	13	5	< 0.02	1.6				
Pb (DIS) (mg/L)	< 0.0003	03/29/16-03/26/19	O	13	2	< 0.0003	0.0013				
Mn (DIS) (mg/L)	< 0.005	03/29/16-03/26/19	O	13	3	< 0.005	0.063				
Hg (DIS) (ug/L)	< 0.005	03/29/16-03/26/19	O	13	0	< 0	< .005				
Mo (DIS) (mg/L)	< 0.002	03/29/16-03/26/19	O	13	0	< 0.002	< 0 .002				
Ni (DIS) (mg/L)	< 0.001	03/29/16-03/26/19	O	13	5	< 0.001	0.003				
Se (DIS) (mg/L)	< 0.0002	03/29/16-03/26/19	O	13	0	< 0.0002	< .0004				
Ag (DIS) (mg/L)	< 0.0002	03/29/16-03/26/19	O	13	0	< 0.0002	: 0 .0002				
Sr (DIS) (mg/L)	0.326	03/29/16-03/26/19	O	13	13	0.261	1.37	0.556	0.639	0.381	0.604
Tl (DIS) (mg/L)	< 0.0002	03/29/16-03/26/19	O	13	0	< 0.0002	: 0 .0002				
U (DIS) (mg/L)	0.0019	03/29/16-03/26/19	O	13	2	0.0016	< .008				
Zn (DIS) (mg/L)	< 0.002	03/29/16-03/26/19	O	13	1	< 0.002	0.004				

SAMPLE NO BBC-1903-209 LAB NO: H19030476-010 STATION:MW-12

03/26/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	28.91	03/29/16-03/26/19	O	13	13	21.19	31.17	26.88	27.45	2.84	0.71	
DO (mg/L)	7.4	03/29/16-03/26/19	O	13	13	6.3	9.9	8.2	8.1	1.2	0.7	
EH (Millivolts)	269.74	03/20/18-03/26/19	O	5	5	265.01	304.8	285.73	288.61	18.36	0.87	
pH Fld (s.u.)	7.63	03/29/16-03/26/19	O	13	13	7.17	7.63	7.5	7.56	0.15	0.85	H
SC Fld (umhos/cm)	417	03/29/16-03/26/19	O	13	13	385.0	437.0	410.7	414	15.6	0.4	
Water Temp (Deg C)	6.8	03/29/16-03/26/19	O	13	13	5.4	7.0	6.4	6.4	0.4	1.1	
TDS (mg/L)	226	03/29/16-03/26/19	O	13	13	215.0	233.0	223.6	224	5.2	0.5	
TSS (mg/L)	< 10	03/29/16-03/26/19	O	13	2	< 4	26.0					
Tot Alk (mg/L)	220	03/29/16-03/26/19	O	13	13	200.0	220.0	213.0	210	5.9	1.2	H
Ca (mg/L)	61	03/29/16-03/26/19	O	13	13	55.0	62.0	58.6	58	1.8	1.3	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Chloride (mg/L)	< 1	03/29/16-03/26/19	O	13	0	< 1	< 1					
F (mg/L)	0.1	03/29/16-03/26/19	O	13	13	0.1	0.1	0.1	0.1	0	0.0	H
Tot Hard (mg/L)	237	03/29/16-03/26/19	O	13	13	212.0	239.0	226.0	223	7	1.6	
Mg (mg/L)	21	03/29/16-03/26/19	O	13	13	18.0	21.0	19.3	19	0.7	2.4	H
K (mg/L)	< 1	03/29/16-03/26/19	O	13	0	< 1	< 1					
Na (mg/L)	2	03/29/16-03/26/19	O	13	13	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	13	03/29/16-03/26/19	O	13	13	10.0	13.0	11.6	12	1	1.4	H
Nitrate + (mg/L)	0.16	03/29/16-03/26/19	O	13	13	0.15	0.19	0.16	0.16	0.01	0.49	
Al (DIS) (mg/L)	< 0.009	03/29/16-03/26/19	O	13	1	< 0.009	0.014					
Sb (DIS) (mg/L)	< 0.0005	03/29/16-03/26/19	O	13	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	03/29/16-03/26/19	O	13	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.053	03/29/16-03/26/19	O	13	13	0.048	0.055	0.052	0.052	0.002	0.636	
Be (DIS) (mg/L)	< 0.0008	03/29/16-03/26/19	O	13	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	03/29/16-03/26/19	O	13	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	03/29/16-03/26/19	O	13	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	03/29/16-03/26/19	O	13	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	03/29/16-03/26/19	O	13	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	03/29/16-03/26/19	O	13	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	03/29/16-03/26/19	O	13	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	03/29/16-03/26/19	O	13	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	03/29/16-03/26/19	O	13	0	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	03/29/16-03/26/19	O	13	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	03/29/16-03/26/19	O	13	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	03/29/16-03/26/19	O	13	1	< 0.0002	< .0004					
Ag (DIS) (mg/L)	< 0.0002	03/29/16-03/26/19	O	13	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.141	03/29/16-03/26/19	O	13	13	0.139	0.149	0.142	0.141	0.003	0.376	
Tl (DIS) (mg/L)	< 0.0002	03/29/16-03/26/19	O	13	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0008	03/29/16-03/26/19	O	13	2	0.0008	< .008					
Zn (DIS) (mg/L)	< 0.002	03/29/16-03/26/19	O	13	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1903-208 LAB NO: H19030476-009 STATION:MW-13

03/26/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	22.05	03/29/16-03/26/19	O	13	13	16.68	22.5	20.68	21.22	1.66	0.82	
DO (mg/L)	7.67	03/29/16-03/26/19	O	13	13	6.32	9.05	7.49	7.64	0.84	0.22	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

EH (Millivolts)	268.18	03/20/18-03/26/19	O	5	5	268.18	302.18	286.08	289.71	15.3	1.17	L
pH Fld (s.u.)	7.63	03/29/16-03/26/19	O	13	13	6.26	7.68	7.37	7.57	0.42	0.62	
SC Fld (umhos/cm)	426	03/29/16-03/26/19	O	13	13	392.0	458.7	426.4	426	19	0.0	
Water Temp (Deg C)	6.6	03/29/16-03/26/19	O	13	13	5.8	7.0	6.4	6.6	0.4	0.4	
TDS (mg/L)	227	03/29/16-03/26/19	O	13	13	224.0	248.0	233.0	231	6.8	0.9	
TSS (mg/L)	13	03/29/16-03/26/19	O	13	10	< 10	319.0	23.1	14	85.3	0.1	
Tot Alk (mg/L)	220	03/29/16-03/26/19	O	13	13	210.0	220.0	216.9	220	4.7	0.7	H
Ca (mg/L)	63	03/29/16-03/26/19	O	13	13	57.0	63.0	60.4	61	1.9	1.3	H
Chloride (mg/L)	< 1	03/29/16-03/26/19	O	13	1	< 1	< 1					
F (mg/L)	0.1	03/29/16-03/26/19	O	13	12	0.1	0.1	0.1	0.1	0	0.0	H
Tot Hard (mg/L)	248	03/29/16-03/26/19	O	13	13	226.0	248.0	237.0	239	6.6	1.7	H
Mg (mg/L)	22	03/29/16-03/26/19	O	13	13	20.0	22.0	20.9	21	0.6	1.8	H
K (mg/L)	< 1	03/29/16-03/26/19	O	13	0	< 1	< 1					
Na (mg/L)	2	03/29/16-03/26/19	O	13	13	1.0	2.0	1.3	1	0.5	1.4	H
SO4 (mg/L)	17	03/29/16-03/26/19	O	13	13	12.0	18.0	15.5	16	1.5	1.0	
Nitrate + (mg/L)	0.23	03/29/16-03/26/19	O	13	13	0.17	0.27	0.2	0.19	0.03	0.98	
Al (DIS) (mg/L)	< 0.009	03/29/16-03/26/19	O	13	6	< 0.009	0.158					
Sb (DIS) (mg/L)	< 0.0005	03/29/16-03/26/19	O	13	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	03/29/16-03/26/19	O	13	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.056	03/29/16-03/26/19	O	13	13	0.054	0.059	0.056	0.056	0.001	0.014	
Be (DIS) (mg/L)	< 0.0008	03/29/16-03/26/19	O	13	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	03/29/16-03/26/19	O	13	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	03/29/16-03/26/19	O	13	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	03/29/16-03/26/19	O	13	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	03/29/16-03/26/19	O	13	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	03/29/16-03/26/19	O	13	2	< 0.02	0.15					
Pb (DIS) (mg/L)	< 0.0003	03/29/16-03/26/19	O	13	1	< 0.0003	0.0004					
Mn (DIS) (mg/L)	< 0.005	03/29/16-03/26/19	O	13	2	< 0.005	0.01					
Hg (DIS) (ug/L)	< 0.005	03/29/16-03/26/19	O	13	0	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	03/29/16-03/26/19	O	13	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	03/29/16-03/26/19	O	13	1	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	03/29/16-03/26/19	O	13	5	< 0.0002	< .0004					
Ag (DIS) (mg/L)	< 0.0002	03/29/16-03/26/19	O	13	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.101	03/29/16-03/26/19	O	13	13	0.099	0.109	0.102	0.102	0.003	0.483	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Tl (DIS) (mg/L)	< 0.0002	03/29/16-03/26/19	O	13	1	< 0.0002	0.0003
U (DIS) (mg/L)	0.0006	03/29/16-03/26/19	O	13	2	0.0005	< .008
Zn (DIS) (mg/L)	< 0.002	03/29/16-03/26/19	O	13	1	< 0.002	< 0 .002

SAMPLE NO BBC-1903-126 LAB NO: H19030548-003 STATION:SW-14

03/27/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	10.41	04/13/16-03/27/19	DUP	32	32	8.24	15.01	10.74	10.43	1.63	0.2	
DO (mg/L)	10.41	04/13/16-03/27/19	O	32	32	8.24	15.01	10.74	10.43	1.63	0.2	
pH Fld (s.u.)	7.81	04/13/16-03/27/19	O	31	31	6.07	8.48	7.91	8.05	0.46	0.21	
pH Fld (s.u.)	7.81	04/13/16-03/27/19	DUP	31	31	6.07	8.48	7.91	8.05	0.46	0.21	
SC Fld (umhos/cm)	269	04/13/16-03/27/19	O	32	32	263.0	439.0	376.8	396	49.8	2.2	
SC Fld (umhos/cm)	269	04/13/16-03/27/19	DUP	32	32	263.0	439.0	376.8	396	49.8	2.2	
Flow (Cubic Ft Sec)	1.14	04/13/16-03/27/19	O	26	26	0.0	11.75	0.31	0.97	3.07	0.27	
Gauge (Feet)	0.4	04/13/16-03/27/19	DUP	18	18	0.3	0.7	0.4	0.5	0.1	0.5	
Gauge (Feet)	0.4	04/13/16-03/27/19	O	18	18	0.3	0.7	0.4	0.5	0.1	0.5	
Water Temp (Deg C)	3.2	04/13/16-03/27/19	DUP	32	32	-0.9	14.7	2.1	5	4.6	0.2	
Water Temp (Deg C)	3.2	04/13/16-03/27/19	O	32	32	-0.9	14.7	2.1	5	4.6	0.2	
TDS (mg/L)	157	04/13/16-03/27/19	O	32	32	157.0	244.0	221.1	226.5	20.6	3.1	*L
TDS (mg/L)	162	04/13/16-03/27/19	DUP	32	32	157.0	244.0	221.1	226.5	20.6	2.9	
TSS (mg/L)	< 4	04/13/16-03/27/19	O	32	4	< 4	15.0					
TSS (mg/L)	< 4	04/13/16-03/27/19	DUP	32	4	< 4	15.0					
Tot Alk (mg/L)	130	04/13/16-03/27/19	O	32	32	130.0	220.0	202.7	210	24.3	3.0	L
Tot Alk (mg/L)	130	04/13/16-03/27/19	DUP	32	32	130.0	220.0	202.7	210	24.3	3.0	L
Ca (mg/L)	34	04/13/16-03/27/19	O	32	32	34.0	61.0	52.8	54.5	6.5	2.9	L
Ca (mg/L)	34	04/13/16-03/27/19	DUP	32	32	34.0	61.0	52.8	54.5	6.5	2.9	L
Chloride (mg/L)	2	04/13/16-03/27/19	O	32	32	1.0	4.0	1.9	2	0.5	0.1	
Chloride (mg/L)	2	04/13/16-03/27/19	DUP	32	32	1.0	4.0	1.9	2	0.5	0.1	
F (mg/L)	< 0.1	04/13/16-03/27/19	O	32	31	< 0.1	0.2	0.2	0.2	0	0.0	L
F (mg/L)	< 0.1	04/13/16-03/27/19	DUP	32	31	< 0.1	0.2	0.2	0.2	0	0.0	L
Tot Hard (mg/L)	134	04/13/16-03/27/19	O	32	32	134.0	239.0	208.7	214.5	24.9	3.0	L
Tot Hard (mg/L)	136	04/13/16-03/27/19	DUP	32	32	134.0	239.0	208.7	214.5	24.9	2.9	
Mg (mg/L)	12	04/13/16-03/27/19	O	32	32	12.0	23.0	18.7	19	2.5	2.7	L
Mg (mg/L)	12	04/13/16-03/27/19	DUP	32	32	12.0	23.0	18.7	19	2.5	2.7	L
K (mg/L)	4	04/13/16-03/27/19	O	32	31	1.0	4.0	1.1	1	0.7	4.2	*H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

K (mg/L)	4	04/13/16-03/27/19	DUP	32	31	1.0	4.0	1.1	1	0.7	4.2	*H
Na (mg/L)	1	04/13/16-03/27/19	O	32	32	1.0	3.0	2.5	3	0.6	2.5	L
Na (mg/L)	1	04/13/16-03/27/19	DUP	32	32	1.0	3.0	2.5	3	0.6	2.5	L
SO4 (mg/L)	7	04/13/16-03/27/19	O	32	32	6.5	19.0	9.1	8.9	2.9	0.7	
SO4 (mg/L)	6	04/13/16-03/27/19	DUP	32	32	6.5	19.0	9.1	8.9	2.9	1.1	L
Nitrate + (mg/L)	0.05	04/13/16-03/27/19	O	32	31	0.01	0.27	0.07	0.09	0.08	0.21	
Nitrate + (mg/L)	0.05	04/13/16-03/27/19	DUP	32	31	0.01	0.27	0.07	0.09	0.08	0.21	
P (mg/L)	0.104	04/13/16-03/27/19	DUP	32	27	< 0.003	0.18	0.008	0.008	0.035	2.749	
P (mg/L)	0.105	04/13/16-03/27/19	O	32	27	< 0.003	0.18	0.008	0.008	0.035	2.778	
Total Pers (mg/L)	0.57	04/13/16-03/27/19	O	29	28	< 0	1.25	0.18	0.21	0.24	1.61	
Total Pers (mg/L)	0.51	04/13/16-03/27/19	DUP	29	28	< 0	1.25	0.18	0.21	0.24	1.36	
Al (DIS) (mg/L)	0.012	04/13/16-03/27/19	O	32	3	< 0.009	0.047					
Al (DIS) (mg/L)	0.011	04/13/16-03/27/19	DUP	32	3	< 0.009	0.047					
Sb (TRC) (mg/L)	< 0.0005	04/13/16-03/27/19	DUP	32	0	< 0.0005	: 0 .0005					
Sb (TRC) (mg/L)	< 0.0005	04/13/16-03/27/19	O	32	0	< 0.0005	: 0 .0005					
As (TRC) (mg/L)	< 0.001	04/13/16-03/27/19	DUP	32	0	< 0.001	< 0 .001					
As (TRC) (mg/L)	< 0.001	04/13/16-03/27/19	O	32	0	< 0.001	< 0 .001					
Ba (TRC) (mg/L)	0.075	04/13/16-03/27/19	DUP	32	32	0.077	0.13	0.111	0.116	0.014	2.55	L
Ba (TRC) (mg/L)	0.077	04/13/16-03/27/19	O	32	32	0.077	0.13	0.111	0.116	0.014	2.407	L
Be (TRC) (mg/L)	< 0.0008	04/13/16-03/27/19	O	32	0	< 0.0008	: 0 .0008					
Be (TRC) (mg/L)	< 0.0008	04/13/16-03/27/19	DUP	32	0	< 0.0008	: 0 .0008					
Cd (TRC) (mg/L)	< 0	04/13/16-03/27/19	DUP	32	2	< 0	: .00003					
Cd (TRC) (mg/L)	< 0	04/13/16-03/27/19	O	32	2	< 0	: .00003					
Cr (TRC) (mg/L)	< 0.01	04/13/16-03/27/19	O	32	0	< 0.01	< 0 .01					
Cr (TRC) (mg/L)	< 0.01	04/13/16-03/27/19	DUP	32	0	< 0.01	< 0 .01					
Co (TRC) (mg/L)	< 0.01	04/13/16-03/27/19	O	32	0	< 0.01	< 0 .01					
Co (TRC) (mg/L)	< 0.01	04/13/16-03/27/19	DUP	32	0	< 0.01	< 0 .01					
Cu (TRC) (mg/L)	< 0.002	04/13/16-03/27/19	DUP	32	0	< 0.002	< 0 .002					
Cu (TRC) (mg/L)	< 0.002	04/13/16-03/27/19	O	32	0	< 0.002	< 0 .002					
Fe (TRC) (mg/L)	0.14	04/13/16-03/27/19	DUP	32	29	0.02	0.43	0.06	0.06	0.08	1.06	
Fe (TRC) (mg/L)	0.13	04/13/16-03/27/19	O	32	29	0.02	0.43	0.06	0.06	0.08	0.94	
Pb (TRC) (mg/L)	< 0.0003	04/13/16-03/27/19	DUP	32	1	< 0.0003	0.0005					
Pb (TRC) (mg/L)	< 0.0003	04/13/16-03/27/19	O	32	1	< 0.0003	0.0005					
Mn (TRC) (mg/L)	0.006	04/13/16-03/27/19	O	32	6	< 0.005	0.009					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Mn (TRC) (mg/L)	0.006	04/13/16-03/27/19	DUP	32	6	< 0.005	0.009					
Hg (TRC) (ug/L)	0.018	04/13/16-03/27/19	O	32	1	< 0	0.018					
Hg (TRC) (ug/L)	0.018	04/13/16-03/27/19	DUP	32	1	< 0	0.018					
Mo (TRC) (mg/L)	< 0.002	04/13/16-03/27/19	DUP	32	0	< 0.002	< 0 .002					
Mo (TRC) (mg/L)	< 0.002	04/13/16-03/27/19	O	32	0	< 0.002	< 0 .002					
Ni (TRC) (mg/L)	< 0.001	04/13/16-03/27/19	DUP	32	1	< 0.001	< .002					
Ni (TRC) (mg/L)	< 0.001	04/13/16-03/27/19	O	32	1	< 0.001	< .002					
Se (TRC) (mg/L)	< 0.0002	04/13/16-03/27/19	O	32	1	< 0.0002	< .0004					
Se (TRC) (mg/L)	< 0.0002	04/13/16-03/27/19	DUP	32	1	< 0.0002	< .0004					
Ag (TRC) (mg/L)	< 0.0002	04/13/16-03/27/19	DUP	32	0	< 0.0002	: 0 .0002					
Ag (TRC) (mg/L)	< 0.0002	04/13/16-03/27/19	O	32	0	< 0.0002	: 0 .0002					
Sr (TRC) (mg/L)	0.0756	04/13/16-03/27/19	DUP	32	32	0.0749	0.136	0.1179	0.124	0.0159	2.662	
Sr (TRC) (mg/L)	0.0749	04/13/16-03/27/19	O	32	32	0.0749	0.136	0.1179	0.124	0.0159	2.706	L
Tl (TRC) (mg/L)	< 0.0002	04/13/16-03/27/19	O	32	0	< 0.0002	: 0 .0002					
Tl (TRC) (mg/L)	< 0.0002	04/13/16-03/27/19	DUP	32	0	< 0.0002	: 0 .0002					
U (TRC) (mg/L)	0.0003	04/13/16-03/27/19	DUP	32	4	0.0003	< .008					
U (TRC) (mg/L)	0.0003	04/13/16-03/27/19	O	32	4	0.0003	< .008					
Zn (TRC) (mg/L)	0.002	04/13/16-03/27/19	DUP	32	5	< 0.002	0.006					
Zn (TRC) (mg/L)	< 0.002	04/13/16-03/27/19	O	32	5	< 0.002	0.006					

SAMPLE NO BBC-1903-223 LAB NO: H19030547-009

STATION:RINSATE BLANK

03/28/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
TDS (mg/L)	< 10	N/A	FB	0							
TSS (mg/L)	< 10	N/A	FB	0							
Tot Alk (mg/L)	< 4	N/A	FB	0							
Ca (mg/L)	< 1	N/A	FB	0							
Chloride (mg/L)	< 1	N/A	FB	0							
F (mg/L)	< 0.1	N/A	FB	0							
Tot Hard (mg/L)	< 1	N/A	FB	0							
Mg (mg/L)	< 1	N/A	FB	0							
K (mg/L)	< 1	N/A	FB	0							
Na (mg/L)	< 1	N/A	FB	0							
SO4 (mg/L)	< 1	N/A	FB	0							
Nitrate + (mg/L)	< 0.01	N/A	FB	0							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Al (DIS) (mg/L)	< 0.009	N/A	FB	0
Sb (DIS) (mg/L)	< 0.0005	N/A	FB	0
As (DIS) (mg/L)	< 0.001	N/A	FB	0
Ba (DIS) (mg/L)	< 0.003	N/A	FB	0
Be (DIS) (mg/L)	< 0.0008	N/A	FB	0
Cd (DIS) (mg/L)	< 0	N/A	FB	0
Cr (DIS) (mg/L)	< 0.01	N/A	FB	0
Co (DIS) (mg/L)	< 0.01	N/A	FB	0
Cu (DIS) (mg/L)	< 0.002	N/A	FB	0
Fe (DIS) (mg/L)	< 0.02	N/A	FB	0
Pb (DIS) (mg/L)	< 0.0003	N/A	FB	0
Mn (DIS) (mg/L)	< 0.005	N/A	FB	0
Hg (DIS) (ug/L)	< 0.005	N/A	FB	0
Mo (DIS) (mg/L)	< 0.002	N/A	FB	0
Ni (DIS) (mg/L)	< 0.001	N/A	FB	0
Se (DIS) (mg/L)	< 0.0002	N/A	FB	0
Ag (DIS) (mg/L)	< 0.0002	N/A	FB	0
Sr (DIS) (mg/L)	< 0.0002	N/A	FB	0
Tl (DIS) (mg/L)	< 0.0002	N/A	FB	0
U (DIS) (mg/L)	< 0.0002	N/A	FB	0
Zn (DIS) (mg/L)	< 0.002	N/A	FB	0

SAMPLE NO BBC-1903-121 LAB NO: H19030477-004

STATION:SW-17

PARAMETER	03/27/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	9.87	01/17/18-03/27/19	O	13	13	9.32	11.38	10.41	10.56	0.66	0.82	
pH Fld (s.u.)	7.65	01/17/18-03/27/19	O	13	13	7.47	8.41	8.03	8.06	0.27	1.4	
SC Fld (umhos/cm)	420	01/17/18-03/27/19	O	13	13	319.0	487.0	428.3	436	38.4	0.2	
Water Temp (Deg C)	1.7	01/17/18-03/27/19	O	13	13	0.0	13.3	1.5	2.9	4.7	0.0	
TDS (mg/L)	243	01/17/18-03/27/19	O	14	14	197.0	299.0	252.2	253.5	22.5	0.4	
TSS (mg/L)	< 4	01/17/18-03/27/19	O	14	5	< 4	14.0					
Tot Alk (mg/L)	170	01/17/18-03/27/19	O	14	14	150.0	210.0	200.5	210	16.8	1.8	
Ca (mg/L)	49	01/17/18-03/27/19	O	14	14	44.0	63.0	54.4	56	4.7	1.2	
Chloride (mg/L)	11	01/17/18-03/27/19	O	14	14	3.0	11.0	4.3	4	2	3.3	*H
F (mg/L)	0.2	01/17/18-03/27/19	O	14	14	0.1	0.2	0.2	0.2	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Tot Hard (mg/L)	211	01/17/18-03/27/19	O	14	14	167.0	262.0	232.0	240.5	21.8	1.0	
Mg (mg/L)	22	01/17/18-03/27/19	O	14	14	14.0	25.0	23.3	25	2.8	0.5	
K (mg/L)	4	01/17/18-03/27/19	O	14	12	1.0	4.0	1.1	1	0.7	4.1	*H
Na (mg/L)	5	01/17/18-03/27/19	O	14	14	2.0	5.0	2.4	2	0.8	3.3	*H
SO4 (mg/L)	30	01/17/18-03/27/19	O	14	14	12.0	44.0	28.8	33.5	7.4	0.2	
Nitrate + (mg/L)	0.16	01/17/18-03/27/19	O	14	13	< 0.01	0.19	0.08	0.11	0.06	1.33	
P (mg/L)	0.056	01/17/18-03/27/19	O	14	14	0.004	0.088	0.013	0.013	0.022	1.937	
Total Pers (mg/L)	0.7	04/12/18-03/27/19	O	11	11	0.1	0.7	0.2	0.2	0.2	2.3	H
Al (DIS) (mg/L)	< 0.009	01/17/18-03/27/19	O	14	1	< 0.009	0.016					
Sb (TRC) (mg/L)	< 0.0005	01/17/18-03/27/19	O	14	0	< 0.0005	: 0 .0005					
As (TRC) (mg/L)	< 0.001	01/17/18-03/27/19	O	14	0	< 0.001	< 0 .001					
Ba (TRC) (mg/L)	0.144	01/17/18-03/27/19	O	14	14	0.108	0.168	0.149	0.152	0.013	0.375	
Be (TRC) (mg/L)	< 0.0008	01/17/18-03/27/19	O	14	0	< 0.0008	: 0 .0008					
Cd (TRC) (mg/L)	< 0	01/17/18-03/27/19	O	14	1	< 0	0.0002					
Cr (TRC) (mg/L)	< 0.01	01/17/18-03/27/19	O	14	0	< 0.01	< 0 .01					
Co (TRC) (mg/L)	< 0.01	01/17/18-03/27/19	O	14	0	< 0.01	< 0 .01					
Cu (TRC) (mg/L)	< 0.002	01/17/18-03/27/19	O	14	0	< 0.002	< 0 .002					
Fe (TRC) (mg/L)	0.26	01/17/18-03/27/19	O	14	14	0.07	0.36	0.15	0.15	0.08	1.43	
Pb (TRC) (mg/L)	< 0.0003	01/17/18-03/27/19	O	14	1	< 0.0003	: 0 .0003					
Mn (TRC) (mg/L)	0.034	01/17/18-03/27/19	O	14	14	0.008	0.051	0.021	0.026	0.013	1.026	
Hg (TRC) (ug/L)	0.009	01/17/18-03/27/19	O	14	1	< 0	0.009					
Mo (TRC) (mg/L)	< 0.002	01/17/18-03/27/19	O	14	0	< 0.002	< 0 .002					
Ni (TRC) (mg/L)	< 0.001	01/17/18-03/27/19	O	14	0	< 0.001	< .002					
Se (TRC) (mg/L)	< 0.0002	01/17/18-03/27/19	O	14	0	< 0.0002	: 0 .0002					
Ag (TRC) (mg/L)	< 0.0002	01/17/18-03/27/19	O	14	0	< 0.0002	: 0 .0002					
Sr (TRC) (mg/L)	0.12	01/17/18-03/27/19	O	14	14	0.12	0.16	0.14	0.15	0.01	2.43	
Tl (TRC) (mg/L)	< 0.0002	01/17/18-03/27/19	O	14	4	< 0.0002	: 0 .0002					
U (TRC) (mg/L)	0.0006	01/17/18-03/27/19	O	14	3	0.0006	< .008					
Zn (TRC) (mg/L)	0.003	01/17/18-03/27/19	O	14	8	< 0.002	0.008	0.003	0.003	0.002	0.091	

SAMPLE NO BBC-1903-202 LAB NO: H19030476-003

STATION:MW-16

03/25/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	7.2	01/24/18-03/25/19	O	6	6	5.4	8.8	7.5	8	1.3	0.3	
DO (mg/L)	0.2	01/24/18-03/25/19	O	6	6	0.0	0.3	0.1	0.2	0.1	0.8	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

EH (Millivolts)	173.06	03/21/18-03/25/19	O	5	5	161.88	187.23	175.24	173.06	10.16	0.21	
pH Fld (s.u.)	7.32	01/24/18-03/25/19	O	6	6	7.14	7.33	7.28	7.3	0.06	0.7	
SC Fld (umhos/cm)	623	01/24/18-03/25/19	O	6	6	568.0	653.0	621.2	623.5	27.9	0.1	
Water Temp (Deg C)	6.7	01/24/18-03/25/19	O	6	6	6.6	6.9	6.7	6.7	0.1	0.2	
TDS (mg/L)	371	01/24/18-03/25/19	O	6	6	329.0	395.0	374.2	382	21.9	0.1	
TSS (mg/L)	17	01/24/18-03/25/19	O	6	5	< 10	82.0	22.3	18	26.6	0.2	
Tot Alk (mg/L)	240	01/24/18-03/25/19	O	6	6	220.0	250.0	241.4	245	11.1	0.1	
Ca (mg/L)	78	01/24/18-03/25/19	O	6	6	67.0	78.0	74.2	76	4.5	0.8	H
Chloride (mg/L)	2	01/24/18-03/25/19	O	6	6	1.0	2.0	1.3	1	0.5	1.5	H
F (mg/L)	0.5	01/24/18-03/25/19	O	6	6	0.5	0.5	0.5	0.5	0	0.0	H
Tot Hard (mg/L)	365	01/24/18-03/25/19	O	6	6	326.0	368.0	349.8	354.5	18.8	0.8	
Mg (mg/L)	41	01/24/18-03/25/19	O	6	6	38.0	42.0	40.0	40.5	1.9	0.5	
K (mg/L)	3	01/24/18-03/25/19	O	6	6	3.0	3.0	3.0	3	0	0.0	H
Na (mg/L)	4	01/24/18-03/25/19	O	6	6	4.0	4.0	4.0	4	0	0.0	H
SO4 (mg/L)	105	01/24/18-03/25/19	O	6	6	72.0	107.0	98.7	104.5	12.5	0.5	
Nitrate + (mg/L)	< 0.01	01/24/18-03/25/19	O	6	1	< 0.01	< 0 .01					
Al (DIS) (mg/L)	< 0.009	01/24/18-03/25/19	O	6	4	< 0.009	0.208	0.023	0.013	0.073	0.197	L
Sb (DIS) (mg/L)	< 0.0005	01/24/18-03/25/19	O	6	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	0.006	01/24/18-03/25/19	O	6	6	0.005	0.006	0.006	0.006	0	0.0	H
Ba (DIS) (mg/L)	0.017	01/24/18-03/25/19	O	6	6	0.017	0.026	0.021	0.02	0.003	1.309	L
Be (DIS) (mg/L)	< 0.0008	01/24/18-03/25/19	O	6	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	01/24/18-03/25/19	O	6	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	01/24/18-03/25/19	O	6	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	01/24/18-03/25/19	O	6	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	01/24/18-03/25/19	O	6	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	1.36	01/24/18-03/25/19	O	6	6	0.91	1.57	1.3	1.36	0.22	0.26	
Pb (DIS) (mg/L)	< 0.0003	01/24/18-03/25/19	O	6	2	< 0.0003	0.0004					
Mn (DIS) (mg/L)	0.044	01/24/18-03/25/19	O	6	6	0.044	0.058	0.049	0.047	0.006	0.892	L
Hg (DIS) (ug/L)	< 0.005	01/24/18-03/25/19	O	6	0	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	01/24/18-03/25/19	O	6	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	01/24/18-03/25/19	O	6	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	01/24/18-03/25/19	O	6	1	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	01/24/18-03/25/19	O	6	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.332	01/24/18-03/25/19	O	6	6	0.285	0.332	0.312	0.319	0.02	0.997	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Tl (DIS) (mg/L)	< 0.0002	01/24/18-03/25/19	O	6	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0019	01/24/18-03/25/19	O	6	2	0.0019	< .008					
Zn (DIS) (mg/L)	0.005	01/24/18-03/25/19	O	6	6	0.005	0.022	0.008	0.006	0.007	0.46	L

SAMPLE NO BBC-1903-213 LAB NO: H19030476-014 STATION:MW-17

03/27/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	55.76	06/14/18-03/27/19	O	4	4	44.91	55.76	50.59	51.16	6	0.86	H
DO (mg/L)	4.73	06/14/18-03/27/19	O	4	4	4.73	6.6	5.8	6.03	1.34	0.8	L
EH (Millivolts)	254.08	06/14/18-03/27/19	O	4	4	241.75	285.01	259.85	257.26	18.2	0.32	
pH Fld (s.u.)	7.73	06/14/18-03/27/19	O	4	4	7.65	7.75	7.71	7.73	0.13	0.12	
SC Fld (umhos/cm)	392	06/14/18-03/27/19	O	4	4	380.0	392.0	385.7	385.5	117.8	0.1	H
Water Temp (Deg C)	6.6	06/14/18-03/27/19	O	4	4	6.2	7.4	6.8	6.8	0.5	0.4	
TDS (mg/L)	214	06/14/18-03/27/19	O	4	4	198.0	214.0	209.1	212.5	7.5	0.6	H
TSS (mg/L)	14	06/14/18-03/27/19	O	4	1	< 10	14.0					
Tot Alk (mg/L)	200	06/14/18-03/27/19	O	4	4	200.0	200.0	200.0	200	0	0.0	H
Ca (mg/L)	44	06/14/18-03/27/19	O	4	4	44.0	45.0	44.7	45	0.5	1.5	L
Chloride (mg/L)	2	06/14/18-03/27/19	O	4	4	2.0	2.0	2.0	2	0	0.0	H
F (mg/L)	0.2	06/14/18-03/27/19	O	4	4	0.2	0.3	0.3	0.3	0	0.0	L
Tot Hard (mg/L)	214	06/14/18-03/27/19	O	4	4	212.0	214.0	213.2	213.5	1	0.8	H
Mg (mg/L)	25	06/14/18-03/27/19	O	4	4	24.0	25.0	24.7	25	0.5	0.5	H
K (mg/L)	< 1	06/14/18-03/27/19	O	4	0	< 1	< 1					
Na (mg/L)	2	06/14/18-03/27/19	O	4	4	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	10	06/14/18-03/27/19	O	4	4	8.0	10.0	8.7	8.5	1	1.3	H
Nitrate + (mg/L)	0.34	06/14/18-03/27/19	O	4	4	0.34	0.5	0.44	0.47	0.07	1.39	L
Al (DIS) (mg/L)	0.016	06/14/18-03/27/19	O	4	2	< 0.009	0.039					
Sb (DIS) (mg/L)	< 0.0005	06/14/18-03/27/19	O	4	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	06/14/18-03/27/19	O	4	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.253	06/14/18-03/27/19	O	4	4	0.253	0.423	0.292	0.26	0.083	0.466	L
Be (DIS) (mg/L)	< 0.0008	06/14/18-03/27/19	O	4	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/14/18-03/27/19	O	4	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/14/18-03/27/19	O	4	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/14/18-03/27/19	O	4	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	06/14/18-03/27/19	O	4	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	06/14/18-03/27/19	O	4	1	< 0.02	0.07					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Pb (DIS) (mg/L)	< 0.0003	06/14/18-03/27/19	O	4	1	< 0.0003	0.001					
Mn (DIS) (mg/L)	0.008	06/14/18-03/27/19	O	4	2	< 0.005	0.021					
Hg (DIS) (ug/L)	< 0.005	06/14/18-03/27/19	O	4	0	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	06/14/18-03/27/19	O	4	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	06/14/18-03/27/19	O	4	1	< 0.001	0.002					
Se (DIS) (mg/L)	0.0009	06/14/18-03/27/19	O	4	4	0.0009	0.0014	0.0011	0.0011	0.0002	1.056	L
Ag (DIS) (mg/L)	< 0.0002	06/14/18-03/27/19	O	4	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.114	06/14/18-03/27/19	O	4	4	0.11	0.143	0.119	0.113	0.016	0.315	
Tl (DIS) (mg/L)	< 0.0002	06/14/18-03/27/19	O	4	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0009	06/14/18-03/27/19	O	4	2	0.0008	< .008					
Zn (DIS) (mg/L)	0.006	06/14/18-03/27/19	O	4	4	0.006	0.011	0.007	0.006	0.002	0.491	L

SAMPLE NO BBC-1903-212 LAB NO: H19030476-013 STATION:MW-18

PARAMETER (03/26/19)	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	17.17	01/24/18-03/26/19	O	6	6	10.13	19.47	16.13	17.02	3.07	0.34	
DO (mg/L)	7.7	01/24/18-03/26/19	O	6	6	7.7	8.6	8.2	8.4	0.4	1.3	L
EH (Millivolts)	266.98	03/21/18-03/26/19	O	5	5	249.14	282.39	271.25	278.83	13.89	0.31	
pH Fld (s.u.)	7.84	01/24/18-03/26/19	O	6	6	7.16	7.84	7.68	7.77	0.26	0.62	H
SC Fld (umhos/cm)	356	01/24/18-03/26/19	O	6	6	355.0	375.0	365.9	368.5	8.8	1.1	
Water Temp (Deg C)	6	01/24/18-03/26/19	O	6	6	4.9	7.4	6.4	6.7	1	0.4	
TDS (mg/L)	194	01/24/18-03/26/19	O	6	6	194.0	220.0	205.5	204.5	8.7	1.3	L
TSS (mg/L)	14	01/24/18-03/26/19	O	6	4	< 10	71.0	23.7	26	22.6	0.4	
Tot Alk (mg/L)	190	01/24/18-03/26/19	O	6	6	190.0	200.0	193.3	190	4.9	0.7	L
Ca (mg/L)	50	01/24/18-03/26/19	O	6	6	45.0	51.0	48.8	49.5	2	0.6	
Chloride (mg/L)	< 1	01/24/18-03/26/19	O	6	0	< 1	< 1					
F (mg/L)	< 0.1	01/24/18-03/26/19	O	6	1	< 0.1	< 0 .1					
Tot Hard (mg/L)	208	01/24/18-03/26/19	O	6	6	190.0	210.0	201.9	202.5	6.8	0.9	
Mg (mg/L)	20	01/24/18-03/26/19	O	6	6	19.0	20.0	19.5	19.5	0.5	1.0	H
K (mg/L)	< 1	01/24/18-03/26/19	O	6	0	< 1	< 1					
Na (mg/L)	2	01/24/18-03/26/19	O	6	6	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	8	01/24/18-03/26/19	O	6	6	5.0	8.0	7.4	8	1.1	0.5	H
Nitrate + (mg/L)	0.17	01/24/18-03/26/19	O	6	6	0.17	0.22	0.19	0.18	0.02	0.79	L
Al (DIS) (mg/L)	< 0.009	01/24/18-03/26/19	O	6	3	< 0.009	0.061					
Sb (DIS) (mg/L)	< 0.0005	01/24/18-03/26/19	O	6	0	< 0.0005	: 0 .0005					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

As (DIS) (mg/L)	< 0.001	01/24/18-03/26/19	O	6	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.083	01/24/18-03/26/19	O	6	6	0.083	0.104	0.096	0.095	0.007	1.794	L
Be (DIS) (mg/L)	< 0.0008	01/24/18-03/26/19	O	6	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	01/24/18-03/26/19	O	6	1	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	01/24/18-03/26/19	O	6	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	01/24/18-03/26/19	O	6	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	01/24/18-03/26/19	O	6	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	01/24/18-03/26/19	O	6	2	< 0.02	0.08					
Pb (DIS) (mg/L)	< 0.0003	01/24/18-03/26/19	O	6	2	< 0.0003	0.0006					
Mn (DIS) (mg/L)	< 0.005	01/24/18-03/26/19	O	6	2	< 0.005	0.009					
Hg (DIS) (ug/L)	< 0.005	01/24/18-03/26/19	O	6	0	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	01/24/18-03/26/19	O	6	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	01/24/18-03/26/19	O	6	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	0.0003	01/24/18-03/26/19	O	6	6	0.0002	0.0004	0.0003	0.0003	0.0001	0.0583	
Ag (DIS) (mg/L)	< 0.0002	01/24/18-03/26/19	O	6	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.1	01/24/18-03/26/19	O	6	6	0.1	0.1	0.1	0.1	0	0.0	
Tl (DIS) (mg/L)	< 0.0002	01/24/18-03/26/19	O	6	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0005	01/24/18-03/26/19	O	6	2	0.0005	< .008					
Zn (DIS) (mg/L)	< 0.002	01/24/18-03/26/19	O	6	1	< 0.002	< 0 .002					

SAMPLE NO BBC-1903-207 LAB NO: H19030476-008 STATION:MW-19

03/26/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	14.18	01/24/18-03/26/19	O	6	6	8.51	15.54	13.28	14.15	2.36	0.38	
DO (mg/L)	8.07	01/24/18-03/26/19	O	6	6	6.69	8.07	7.2	7.11	0.49	1.77	H
EH (Millivolts)	273.25	03/20/18-03/26/19	O	5	5	251.79	340.72	286.17	278.5	33.29	0.39	
pH Fld (s.u.)	7.54	01/24/18-03/26/19	O	6	6	7.47	7.79	7.57	7.54	0.11	0.25	
SC Fld (umhos/cm)	366	01/24/18-03/26/19	O	6	6	352.0	417.0	387.8	394	25.4	0.9	
Water Temp (Deg C)	6.2	01/24/18-03/26/19	O	6	6	6.2	8.1	7.0	7	0.7	1.2	L
TDS (mg/L)	203	01/24/18-03/26/19	O	6	6	203.0	234.0	219.3	220.5	11.6	1.4	L
TSS (mg/L)	44	01/24/18-03/26/19	O	6	5	< 10	44.0	22.5	25	12.1	1.8	H
Tot Alk (mg/L)	180	01/24/18-03/26/19	O	6	6	180.0	210.0	199.7	205	11.5	1.7	L
Ca (mg/L)	52	01/24/18-03/26/19	O	6	6	51.0	57.0	54.5	55.5	2.3	1.1	
Chloride (mg/L)	< 1	01/24/18-03/26/19	O	6	1	< 1	< 1					
F (mg/L)	0.1	01/24/18-03/26/19	O	6	6	0.1	0.1	0.1	0.1	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Tot Hard (mg/L)	210	01/24/18-03/26/19	O	6	6	210.0	230.0	221.0	224.5	8.8	1.3	L
Mg (mg/L)	20	01/24/18-03/26/19	O	6	6	20.0	22.0	20.7	20.5	0.8	0.8	L
K (mg/L)	< 1	01/24/18-03/26/19	O	6	0	< 1	< 1					
Na (mg/L)	2	01/24/18-03/26/19	O	6	6	2.0	3.0	2.3	2	0.5	0.6	L
SO4 (mg/L)	14	01/24/18-03/26/19	O	6	6	11.0	16.0	14.1	14.5	1.7	0.0	
Nitrate + (mg/L)	0.25	01/24/18-03/26/19	O	6	6	0.18	0.48	0.24	0.23	0.11	0.05	
Al (DIS) (mg/L)	< 0.009	01/24/18-03/26/19	O	6	4	< 0.009	0.054	0.016	0.014	0.016	0.41	L
Sb (DIS) (mg/L)	< 0.0005	01/24/18-03/26/19	O	6	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	01/24/18-03/26/19	O	6	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.081	01/24/18-03/26/19	O	6	6	0.079	0.095	0.089	0.092	0.007	1.085	
Be (DIS) (mg/L)	< 0.0008	01/24/18-03/26/19	O	6	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	01/24/18-03/26/19	O	6	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	01/24/18-03/26/19	O	6	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	01/24/18-03/26/19	O	6	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	01/24/18-03/26/19	O	6	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	01/24/18-03/26/19	O	6	2	< 0.02	0.06					
Pb (DIS) (mg/L)	< 0.0003	01/24/18-03/26/19	O	6	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	01/24/18-03/26/19	O	6	1	< 0.005	0.008					
Hg (DIS) (ug/L)	< 0.005	01/24/18-03/26/19	O	6	0	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	01/24/18-03/26/19	O	6	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	01/24/18-03/26/19	O	6	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	01/24/18-03/26/19	O	6	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	01/24/18-03/26/19	O	6	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.13	01/24/18-03/26/19	O	6	6	0.13	0.16	0.15	0.15	0.01	1.8	L
Tl (DIS) (mg/L)	< 0.0002	01/24/18-03/26/19	O	6	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0007	01/24/18-03/26/19	O	6	2	0.0007	< .008					
Zn (DIS) (mg/L)	< 0.002	01/24/18-03/26/19	O	6	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1903-214 LAB NO: H19030476-015

STATION:MW-20

03/27/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
Depth to W (Feet)	20.04	01/24/18-03/27/19	O	6	6	18.12	25.93	22.08	21.98	2.81	0.72
DO (mg/L)	9.45	01/24/18-03/27/19	O	6	6	7.06	9.51	8.58	9.21	1.12	0.77
EH (Millivolts)	259.06	03/20/18-03/27/19	O	5	5	244.47	278.77	264.09	267.21	13.25	0.38
pH Fld (s.u.)	7.76	01/24/18-03/27/19	O	6	6	7.4	7.79	7.68	7.75	0.15	0.51

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

SC Fld (umhos/cm)	382	01/24/18-03/27/19	O	6	6	380.0	410.0	392.3	391	12.5	0.8	
Water Temp (Deg C)	6.7	01/24/18-03/27/19	O	6	6	6.7	8.1	7.5	7.7	0.5	1.6	L
TDS (mg/L)	208	01/24/18-03/27/19	O	6	6	198.0	225.0	213.0	215.5	9.2	0.5	
TSS (mg/L)	179	01/24/18-03/27/19	O	6	6	64.0	603.0	218.6	208.5	207.6	0.2	
Tot Alk (mg/L)	200	01/24/18-03/27/19	O	6	6	200.0	290.0	227.4	210	39.5	0.7	L
Ca (mg/L)	46	01/24/18-03/27/19	O	6	6	43.0	51.0	47.6	48	2.9	0.5	
Chloride (mg/L)	< 1	01/24/18-03/27/19	O	6	0	< 1	< 1					
F (mg/L)	< 0.1	01/24/18-03/27/19	O	6	2	< 0.1	< 0 .1					
Tot Hard (mg/L)	209	01/24/18-03/27/19	O	6	6	200.0	229.0	215.5	217	10.4	0.6	
Mg (mg/L)	23	01/24/18-03/27/19	O	6	6	22.0	25.0	23.3	23	1	0.3	
K (mg/L)	1	01/24/18-03/27/19	O	6	4	1.0	1.0	1.0	1	0	0.0	H
Na (mg/L)	2	01/24/18-03/27/19	O	6	6	1.0	2.0	1.3	1	0.5	1.5	H
SO4 (mg/L)	9	01/24/18-03/27/19	O	6	6	7.0	10.0	9.1	9.5	1.2	0.1	
Nitrate + (mg/L)	0.45	01/24/18-03/27/19	O	6	6	0.28	0.45	0.34	0.34	0.07	1.53	H
Al (DIS) (mg/L)	0.009	01/24/18-03/27/19	O	6	3	0.009	0.045					
Sb (DIS) (mg/L)	< 0.0005	01/24/18-03/27/19	O	6	0	< 0.0005	< 0 .0005					
As (DIS) (mg/L)	< 0.001	01/24/18-03/27/19	O	6	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.178	01/24/18-03/27/19	O	6	6	0.175	0.207	0.192	0.198	0.013	1.099	
Be (DIS) (mg/L)	< 0.0008	01/24/18-03/27/19	O	6	0	< 0.0008	< 0 .0008					
Cd (DIS) (mg/L)	< 0	01/24/18-03/27/19	O	6	0	< 0	< .00003					
Cr (DIS) (mg/L)	< 0.01	01/24/18-03/27/19	O	6	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	01/24/18-03/27/19	O	6	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	01/24/18-03/27/19	O	6	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	01/24/18-03/27/19	O	6	2	< 0.02	0.04					
Pb (DIS) (mg/L)	< 0.0003	01/24/18-03/27/19	O	6	0	< 0.0003	< 0 .0003					
Mn (DIS) (mg/L)	< 0.005	01/24/18-03/27/19	O	6	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	01/24/18-03/27/19	O	6	0	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	01/24/18-03/27/19	O	6	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	01/24/18-03/27/19	O	6	3	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	01/24/18-03/27/19	O	6	5	< 0.0002	0.0003	0.0002	0.0002	0.0001	0.2894	L
Ag (DIS) (mg/L)	< 0.0002	01/24/18-03/27/19	O	6	0	< 0.0002	< 0 .0002					
Sr (DIS) (mg/L)	0.0655	01/24/18-03/27/19	O	6	6	0.0655	0.078	0.0712	0.0718	0.0046	1.2487	L
Tl (DIS) (mg/L)	< 0.0002	01/24/18-03/27/19	O	6	0	< 0.0002	< 0 .0002					
U (DIS) (mg/L)	0.0005	01/24/18-03/27/19	O	6	2	0.0005	< .008					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Zn (DIS) (mg/L)	< 0.002	01/24/18-03/27/19	O	6	1	< 0.002	0.004						

SAMPLE NO BBC-1903-122 LAB NO: H19030475-007 STATION:SP-12

03/27/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	4.18	04/18/18-03/27/19	O	10	10	3.32	8.8	5.92	6.29	2.01	0.86	
pH Fld (s.u.)	7.25	04/18/18-03/27/19	O	10	10	6.76	7.95	7.49	7.62	0.35	0.7	
SC Fld (umhos/cm)	437	04/18/18-03/27/19	O	10	10	421.0	473.0	441.9	437	16.5	0.3	
Water Temp (Deg C)	4.3	04/18/18-03/27/19	O	10	10	4.3	7.3	6.0	6.2	0.9	1.9	L
TDS (mg/L)	245	04/18/18-03/27/19	O	11	11	234.0	262.0	247.0	248	9.3	0.2	
TSS (mg/L)	< 10	04/18/18-03/27/19	O	11	6	< 10	187.0	23.5	22	53.2	0.3	L
Tot Alk (mg/L)	160	04/18/18-03/27/19	O	11	11	160.0	220.0	200.2	210	16.4	2.5	L
Ca (mg/L)	42	04/18/18-03/27/19	O	11	11	42.0	61.0	54.2	55	4.8	2.6	L
Chloride (mg/L)	15	04/18/18-03/27/19	O	11	11	5.0	15.0	7.8	8	2.7	2.6	H
F (mg/L)	0.1	04/18/18-03/27/19	O	11	11	0.1	0.2	0.2	0.2	0	0.0	L
Tot Hard (mg/L)	180	04/18/18-03/27/19	O	11	11	180.0	258.0	231.7	238	20.2	2.6	L
Mg (mg/L)	18	04/18/18-03/27/19	O	11	11	18.0	26.0	23.4	24	2.2	2.5	L
K (mg/L)	13	04/18/18-03/27/19	O	11	11	1.0	13.0	1.4	1	3.6	3.2	*H
Na (mg/L)	3	04/18/18-03/27/19	O	11	11	2.0	3.0	2.2	2	0.5	1.5	H
SO4 (mg/L)	21	04/18/18-03/27/19	O	11	11	21.0	28.0	24.1	24	2.5	1.2	L
Nitrate + (mg/L)	0.15	04/18/18-03/27/19	O	11	11	0.15	0.69	0.37	0.33	0.16	1.35	L
Al (DIS) (mg/L)	< 0.009	04/18/18-03/27/19	O	11	1	< 0.009	0.014					
Sb (DIS) (mg/L)	< 0.0005	04/18/18-03/27/19	O	11	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	04/18/18-03/27/19	O	11	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.128	04/18/18-03/27/19	O	11	11	0.128	0.192	0.174	0.176	0.018	2.55	L
Be (DIS) (mg/L)	< 0.0008	04/18/18-03/27/19	O	11	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	04/18/18-03/27/19	O	11	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	04/18/18-03/27/19	O	11	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	04/18/18-03/27/19	O	11	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	0.002	04/18/18-03/27/19	O	11	1	0.002	0.002					
Fe (DIS) (mg/L)	0.05	04/18/18-03/27/19	O	11	4	< 0.02	0.06					
Pb (DIS) (mg/L)	< 0.0003	04/18/18-03/27/19	O	11	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	04/18/18-03/27/19	O	11	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	0.018	04/18/18-03/27/19	O	11	1	< 0	0.018					
Mo (DIS) (mg/L)	< 0.002	04/18/18-03/27/19	O	11	0	< 0.002	< 0 .002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Ni (DIS) (mg/L)	< 0.001	04/18/18-03/27/19	O	11	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	04/18/18-03/27/19	O	11	9	< 0.0002	0.0003	0.0002	0.0002	0	0.0	L
Ag (DIS) (mg/L)	< 0.0002	04/18/18-03/27/19	O	11	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.081	04/18/18-03/27/19	O	11	11	0.081	0.115	0.106	0.107	0.01	2.501	L
Tl (DIS) (mg/L)	< 0.0002	04/18/18-03/27/19	O	11	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0003	04/18/18-03/27/19	O	11	5	0.0003	< .008					
Zn (DIS) (mg/L)	0.005	04/18/18-03/27/19	O	11	4	< 0.002	0.005					

SAMPLE NO BBC-1903-106 LAB NO: z

STATION:DS-7

03/26/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
Flow (Gallons Per Min)	4.12	N/A	OBS	0							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

APPENDIX 2

DATABASE

Analyses Summary Report

Site Name: Black Butte Mi 5/8/2019 11:05:06 AM

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DI-Blank	DS-1	DS-2	DS-3
Water	Sample Date	3/27/2019	3/28/2019	3/28/2019	3/26/2019	3/26/2019	3/26/2019
	Sample Time	7:50:00 AM	8:25:00 AM	1:10:00 PM	3:05:00 PM	5:15:00 PM	11:30:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	HYDRO	HYDRO
	Lab Number	H19030475-006	H19030548-004	H19030547-008	H19030475-004	z	z
	Sample Number	BBC-1903-118	BBC-1903-128	BBC-1903-222	BBC-1903-111	BBC-1903-113	BBC-1903-103
	Remarks						
Field Parameters	Multiple Units						
Depth To Water							
Dissolved Oxygen					10.03		
EH							
Field pH					8.17		
Field Specific Conductivity					367		
Flow							
Flow					2.6	NM-ICE	NM-ICE
Staff Gauge							
Water Temperature					2.3		
Physical Parameters	mg/L						
Total Dissolved Solids	<10	<10	<10	203			
Total Suspended Solids	<10	<4	<10	20			
Major Constituents - Commons Ions	mg/L						
Alkalinity as CaCO3	<4	<4	<4	190			
Calcium (DIS)	<1	<1	<1	51			
Chloride	<1	<1	<1	<1			
Fluoride	<0.1	<0.1	<0.1	0.1			
Hardness as CaCO3	<1	<1	<1	205			
Magnesium (DIS)	<1	<1	<1	19			
Potassium (DIS)	<1	<1	<1	<1			
Sodium (DIS)	<1	<1	<1	1			
Sulfate	<1	<1	<1	15			
Nutrients	mg/L						
Nitrate + Nitrite as N	<0.01	<0.01	<0.01	0.12			
Phosphorus (TOT)		<0.003					
Total Persulfate Nitrogen		<0.04					
Metals - Trace Constituents	Multiple Units						
Aluminum (DIS)	<0.009	<0.009	<0.009	<0.009			
Antimony (DIS)	<0.0005		<0.0005	<0.0005			
Antimony (TRC)		<0.0005					
Arsenic (DIS)	<0.001		<0.001	<0.001			
Arsenic (TRC)		<0.001					
Barium (DIS)	<0.003		<0.003	0.059			
Barium (TRC)		<0.003					
Beryllium (DIS)	<0.0008		<0.0008	<0.0008			
Beryllium (TRC)		<0.0008					
Cadmium (DIS)	<0.00003		<0.00003	<0.00003			
Cadmium (TRC)		<0.00003					
Chromium (DIS)	<0.01		<0.01	<0.01			

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DI-Blank	DS-1	DS-2	DS-3
Water	Sample Date	3/27/2019	3/28/2019	3/28/2019	3/26/2019	3/26/2019	3/26/2019
	Sample Time	7:50:00 AM	8:25:00 AM	1:10:00 PM	3:05:00 PM	5:15:00 PM	11:30:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	HYDRO	HYDRO
	Lab Number	H19030475-006	H19030548-004	H19030547-008	H19030475-004	z	z
	Sample Number	BBC-1903-118	BBC-1903-128	BBC-1903-222	BBC-1903-111	BBC-1903-113	BBC-1903-103
	Remarks						

Metals - Trace Constituents	Multiple Units					
Chromium (TRC)		<0.01				
Cobalt (DIS)	<0.01		<0.01	<0.01		
Cobalt (TRC)		<0.01				
Copper (DIS)	<0.002		<0.002	<0.002		
Copper (TRC)		<0.002				
Iron (DIS)	<0.02		<0.02	<0.02		
Iron (TRC)		<0.02				
Lead (DIS)	<0.0003		<0.0003	<0.0003		
Lead (TRC)		<0.0003				
Manganese (DIS)	<0.005		<0.005	<0.005		
Manganese (TRC)		<0.005				
Mercury (DIS)	<0.005		<0.005	<0.005		
Mercury (TRC)		<0.005				
Molybdenum (DIS)	<0.002		<0.002	<0.002		
Molybdenum (TRC)		<0.002				
Nickel (DIS)	0.002		<0.001	<0.001		
Nickel (TRC)		<0.001				
Selenium (DIS)	<0.0002		<0.0002	0.0002		
Selenium (TRC)		<0.0002				
Silver (DIS)	<0.0002		<0.0002	<0.0002		
Silver (TRC)		<0.0002				
Strontium (DIS)	<0.0002		<0.0002	0.104		
Strontium (TRC)		<0.0002				
Thallium (DIS)	<0.0002		<0.0002	<0.0002		
Thallium (TRC)		<0.0002				
Uranium (DIS)	<0.0002		<0.0002	0.0007		
Uranium (TRC)		<0.0002				
Zinc (DIS)	<0.002		<0.002	<0.002		
Zinc (TRC)		<0.002				

Sample Type:	Station (Site)	DS-4	DS-7	Holmstrom Ditch	MW-10	MW-11	MW-12
Water	Sample Date	3/26/2019	3/26/2019	3/28/2019	3/26/2019	3/26/2019	3/26/2019
	Sample Time	10:00:00 AM	1:30:00 PM	10:00:00 AM	4:45:00 PM	3:30:00 PM	2:25:00 PM
	Lab	HYDRO	HYDRO	Hydro	Energy Labs	Energy Labs	Energy Labs
	Lab Number	z	z	z	H19030476-012	H19030476-011	H19030476-010
	Sample Number	BBC-1903-101	BBC-1903-106	BBC-1903-131	BBC-1903-211	BBC-1903-210	BBC-1903-209
	Remarks						

Field Parameters	Multiple Units					
Depth To Water				81.43	34.46	28.91
Dissolved Oxygen				8.1	7.62	7.4
EH				264.41	265.45	269.74
Field pH				7.97	7.77	7.63
Field Specific Conductivity				325	319	417
Flow						
Flow	NM-DRY	4.12	NM			
Staff Gauge						
Water Temperature				8.2	9.1	6.8
Physical Parameters	mg/L					
Total Dissolved Solids				187	182	226
Total Suspended Solids				33	21	<10
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3				180	170	220
Calcium (DIS)				43	48	61
Chloride				<1	<1	<1
Fluoride				0.2	<0.1	0.1
Hardness as CaCO3				183	172	237
Magnesium (DIS)				19	12	21
Potassium (DIS)				2	2	<1
Sodium (DIS)				6	6	2
Sulfate				5	6	13
Nutrients	mg/L					
Nitrate + Nitrite as N				0.53	0.44	0.16
Phosphorus (TOT)						
Total Persulfate Nitrogen						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)				0.019	0.01	<0.009
Antimony (DIS)				<0.0005	<0.0005	<0.0005
Antimony (TRC)						
Arsenic (DIS)				<0.001	<0.001	<0.001
Arsenic (TRC)						
Barium (DIS)				0.189	0.162	0.053
Barium (TRC)						
Beryllium (DIS)				<0.0008	<0.0008	<0.0008
Beryllium (TRC)						
Cadmium (DIS)				<0.00003	<0.00003	<0.00003
Cadmium (TRC)						
Chromium (DIS)				<0.01	<0.01	<0.01

Sample Type:	Station (Site)	DS-4	DS-7	Holmstrom Ditch	MW-10	MW-11	MW-12
Water	Sample Date	3/26/2019	3/26/2019	3/28/2019	3/26/2019	3/26/2019	3/26/2019
	Sample Time	10:00:00 AM	1:30:00 PM	10:00:00 AM	4:45:00 PM	3:30:00 PM	2:25:00 PM
	Lab	HYDRO	HYDRO	Hydro	Energy Labs	Energy Labs	Energy Labs
	Lab Number	z	z	z	H19030476-012	H19030476-011	H19030476-010
	Sample Number	BBC-1903-101	BBC-1903-106	BBC-1903-131	BBC-1903-211	BBC-1903-210	BBC-1903-209
	Remarks						

Metals - Trace Constituents Multiple Units			
Chromium (TRC)			
Cobalt (DIS)	<0.01	<0.01	<0.01
Cobalt (TRC)			
Copper (DIS)	<0.002	<0.002	<0.002
Copper (TRC)			
Iron (DIS)	<0.02	<0.02	<0.02
Iron (TRC)			
Lead (DIS)	<0.0003	<0.0003	<0.0003
Lead (TRC)			
Manganese (DIS)	<0.005	<0.005	<0.005
Manganese (TRC)			
Mercury (DIS)	<0.005	<0.005	<0.005
Mercury (TRC)			
Molybdenum (DIS)	0.005	<0.002	<0.002
Molybdenum (TRC)			
Nickel (DIS)	<0.001	<0.001	<0.001
Nickel (TRC)			
Selenium (DIS)	<0.0002	<0.0002	<0.0002
Selenium (TRC)			
Silver (DIS)	<0.0002	<0.0002	<0.0002
Silver (TRC)			
Strontium (DIS)	0.956	0.326	0.141
Strontium (TRC)			
Thallium (DIS)	<0.0002	<0.0002	<0.0002
Thallium (TRC)			
Uranium (DIS)	0.0088	0.0019	0.0008
Uranium (TRC)			
Zinc (DIS)	<0.002	<0.002	<0.002
Zinc (TRC)			

Sample Type:	Station (Site)	MW-13	MW-16	MW-17	MW-18	MW-19	MW-1A
Water	Sample Date	3/26/2019	3/25/2019	3/27/2019	3/26/2019	3/26/2019	3/26/2019
	Sample Time	1:50:00 PM	6:15:00 PM	9:30:00 AM	5:45:00 PM	1:00:00 PM	12:00:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19030476-009	H19030476-003	H19030476-014	H19030476-013	H19030476-008	H19030476-007
	Sample Number	BBC-1903-208	BBC-1903-202	BBC-1903-213	BBC-1903-212	BBC-1903-207	BBC-1903-206
	Remarks						

Field Parameters	Multiple Units					
Depth To Water	22.05	7.2	55.76	17.17	14.18	7.41
Dissolved Oxygen	7.67	0.2	4.73	7.7	8.07	8.94
EH	268.18	173.06	254.08	266.98	273.25	278.03
Field pH	7.63	7.32	7.73	7.84	7.54	7.4
Field Specific Conductivity	426	623	392	356	366	337
Flow						
Flow						
Staff Gauge						
Water Temperature	6.6	6.7	6.6	6	6.2	6.9
Physical Parameters	mg/L					
Total Dissolved Solids	227	371	214	194	203	194
Total Suspended Solids	13	17	14	14	44	45
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	220	240	200	190	180	170
Calcium (DIS)	63	78	44	50	52	44
Chloride	<1	2	2	<1	<1	2
Fluoride	0.1	0.5	0.2	<0.1	0.1	0.2
Hardness as CaCO3	248	365	214	208	210	187
Magnesium (DIS)	22	41	25	20	20	19
Potassium (DIS)	<1	3	<1	<1	<1	1
Sodium (DIS)	2	4	2	2	2	2
Sulfate	17	105	10	8	14	14
Nutrients	mg/L					
Nitrate + Nitrite as N	0.23	<0.01	0.34	0.17	0.25	0.42
Phosphorus (TOT)						
Total Persulfate Nitrogen						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009	<0.009	0.016	<0.009	<0.009	0.022
Antimony (DIS)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Antimony (TRC)						
Arsenic (DIS)	<0.001	0.006	<0.001	<0.001	<0.001	<0.001
Arsenic (TRC)						
Barium (DIS)	0.056	0.017	0.253	0.083	0.081	0.181
Barium (TRC)						
Beryllium (DIS)	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Beryllium (TRC)						
Cadmium (DIS)	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Cadmium (TRC)						
Chromium (DIS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Sample Type:	Station (Site)	MW-13	MW-16	MW-17	MW-18	MW-19	MW-1A
Water	Sample Date	3/26/2019	3/25/2019	3/27/2019	3/26/2019	3/26/2019	3/26/2019
	Sample Time	1:50:00 PM	6:15:00 PM	9:30:00 AM	5:45:00 PM	1:00:00 PM	12:00:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19030476-009	H19030476-003	H19030476-014	H19030476-013	H19030476-008	H19030476-007
	Sample Number	BBC-1903-208	BBC-1903-202	BBC-1903-213	BBC-1903-212	BBC-1903-207	BBC-1903-206
	Remarks						

Metals - Trace Constituents	Multiple Units					
Chromium (TRC)						
Cobalt (DIS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt (TRC)						
Copper (DIS)	<0.002	<0.002	<0.002	<0.002	<0.002	0.006
Copper (TRC)						
Iron (DIS)	<0.02	1.36	<0.02	<0.02	<0.02	<0.02
Iron (TRC)						
Lead (DIS)	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.0003
Lead (TRC)						
Manganese (DIS)	<0.005	0.044	0.008	<0.005	<0.005	<0.005
Manganese (TRC)						
Mercury (DIS)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Mercury (TRC)						
Molybdenum (DIS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Molybdenum (TRC)						
Nickel (DIS)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Nickel (TRC)						
Selenium (DIS)	<0.0002	<0.0002	0.0009	0.0003	<0.0002	0.0002
Selenium (TRC)						
Silver (DIS)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Silver (TRC)						
Strontium (DIS)	0.101	0.332	0.114	0.1	0.13	0.0995
Strontium (TRC)						
Thallium (DIS)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0009
Thallium (TRC)						
Uranium (DIS)	0.0006	0.0019	0.0009	0.0005	0.0007	0.001
Uranium (TRC)						
Zinc (DIS)	<0.002	0.005	0.006	<0.002	<0.002	<0.002
Zinc (TRC)						

Sample Type:	Station (Site)	MW-1B	MW-20	MW-2A	MW-2B	MW-3	MW-4A
Water	Sample Date	3/26/2019	3/27/2019	3/26/2019	3/26/2019	3/25/2019	3/27/2019
	Sample Time	10:55:00 AM	10:30:00 AM	9:30:00 AM	10:00:00 AM	3:40:00 PM	4:50:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19030476-006	H19030476-015	H19030476-004	H19030476-005	H19030476-001	H19030547-002
	Sample Number	BBC-1903-205	BBC-1903-214	BBC-1903-203	BBC-1903-204	BBC-1903-200	BBC-1903-216
	Remarks						

Field Parameters	Multiple Units					
Depth To Water	24.18	20.04	42.02	41.32	41.38	4.9
Dissolved Oxygen	0.07	9.45	7.6	0.2	0.11	0.24
EH	193.87	259.06	298.68	253.38	195.57	298.07
Field pH	6.42	7.76	7.57	7.34	7.19	NM
Field Specific Conductivity	627.5	382	388	432	782	496
Flow						
Flow						
Staff Gauge						
Water Temperature	7.8	6.7	7.2	7.2	9	4.3
Physical Parameters	mg/L					
Total Dissolved Solids	435	208	208	237	521	267
Total Suspended Solids	37	179	<10	<10	<10	<10
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	110	200	190	200	220	250
Calcium (DIS)	68	46	46	52	77	71
Chloride	1	<1	1	1	1	3
Fluoride	0.2	<0.1	0.3	0.3	0.7	0.1
Hardness as CaCO3	316	209	215	244	406	258
Magnesium (DIS)	36	23	24	28	52	20
Potassium (DIS)	3	1	1	1	3	1
Sodium (DIS)	3	2	3	3	16	3
Sulfate	226	9	22	37	222	15
Nutrients	mg/L					
Nitrate + Nitrite as N	0.04	0.45	0.2	<0.01	<0.01	<0.01
Phosphorus (TOT)						
Total Persulfate Nitrogen						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	0.017	0.009	<0.009	<0.009	<0.009	<0.009
Antimony (DIS)	0.0008	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Antimony (TRC)						
Arsenic (DIS)	0.07	<0.001	<0.001	0.003	0.071	<0.001
Arsenic (TRC)						
Barium (DIS)	0.011	0.178	0.084	0.043	0.011	0.175
Barium (TRC)						
Beryllium (DIS)	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Beryllium (TRC)						
Cadmium (DIS)	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Cadmium (TRC)						
Chromium (DIS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Sample Type:	Station (Site)	MW-1B	MW-20	MW-2A	MW-2B	MW-3	MW-4A
Water	Sample Date	3/26/2019	3/27/2019	3/26/2019	3/26/2019	3/25/2019	3/27/2019
	Sample Time	10:55:00 AM	10:30:00 AM	9:30:00 AM	10:00:00 AM	3:40:00 PM	4:50:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19030476-006	H19030476-015	H19030476-004	H19030476-005	H19030476-001	H19030547-002
	Sample Number	BBC-1903-205	BBC-1903-214	BBC-1903-203	BBC-1903-204	BBC-1903-200	BBC-1903-216
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Chromium (TRC)						
	Cobalt (DIS)	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
	Cobalt (TRC)						
	Copper (DIS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	Copper (TRC)						
	Iron (DIS)	20	<0.02	<0.02	0.02	1.02	<0.02
	Iron (TRC)						
	Lead (DIS)	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
	Lead (TRC)						
	Manganese (DIS)	0.075	<0.005	<0.005	0.007	0.016	0.23
	Manganese (TRC)						
	Mercury (DIS)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	Mercury (TRC)						
	Molybdenum (DIS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	Molybdenum (TRC)						
	Nickel (DIS)	0.011	<0.001	<0.001	<0.001	<0.001	<0.001
	Nickel (TRC)						
	Selenium (DIS)	<0.0002	<0.0002	0.0013	0.0066	<0.0002	<0.0002
	Selenium (TRC)						
	Silver (DIS)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
	Silver (TRC)						
	Strontium (DIS)	1.83	0.0655	0.0925	0.0912	13.6	0.169
	Strontium (TRC)						
	Thallium (DIS)	0.0125	<0.0002	0.0002	0.0038	0.0004	<0.0002
	Thallium (TRC)						
	Uranium (DIS)	<0.0002	0.0005	0.0005	0.0023	0.0011	0.0004
	Uranium (TRC)						
	Zinc (DIS)	0.012	<0.002	<0.002	<0.002	<0.002	<0.002
	Zinc (TRC)						

Sample Type:	Station (Site)	MW-4B	MW-6A	MW-6A	MW-6B	MW-7	MW-8
Water	Sample Date	3/27/2019	3/28/2019	3/28/2019	3/28/2019	3/28/2019	3/28/2019
	Sample Time	4:15:00 PM	11:35:00 AM	11:50:00 AM	12:00:00 PM	10:40:00 AM	9:50:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19030547-001	H19030547-005	H19030547-006	H19030547-007	H19030547-004	H19030547-003
	Sample Number	BBC-1903-215	BBC-1903-219	BBC-1903-220	BBC-1903-221	BBC-1903-218	BBC-1903-217
	Remarks						

Field Parameters	Multiple Units					
Depth To Water	4.35	7.84		11.13	32.32	31.75
Dissolved Oxygen	0.36	5.34		NM	0.34	0.58
EH	238.13	282.08		NM	250.69	150.64
Field pH	7.11	7.59		NM	7.48	7.89
Field Specific Conductivity	443	451		NM	535	309
Flow						
Flow						
Staff Gauge						
Water Temperature	6.3	5.4		NM	7.1	6.8
Physical Parameters	mg/L					
Total Dissolved Solids	234	246	244	249	310	160
Total Suspended Solids	<10	23	28	<10	41	<10
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	220	230	230	230	230	160
Calcium (DIS)	62	56	57	50	60	25
Chloride	2	<1	<1	<1	4	<1
Fluoride	0.1	0.2	0.2	0.5	0.3	0.2
Hardness as CaCO3	234	243	247	227	307	158
Magnesium (DIS)	19	25	25	25	38	23
Potassium (DIS)	1	<1	<1	1	1	<1
Sodium (DIS)	3	3	3	14	3	3
Sulfate	14	17	17	23	62	15
Nutrients	mg/L					
Nitrate + Nitrite as N	0.07	0.1	0.1	0.07	<0.01	<0.01
Phosphorus (TOT)						
Total Persulfate Nitrogen						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009	<0.009	<0.009	<0.009	0.014	<0.009
Antimony (DIS)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Antimony (TRC)						
Arsenic (DIS)	<0.001	<0.001	<0.001	<0.001	0.001	0.002
Arsenic (TRC)						
Barium (DIS)	0.128	0.179	0.18	0.111	0.042	0.079
Barium (TRC)						
Beryllium (DIS)	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Beryllium (TRC)						
Cadmium (DIS)	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Cadmium (TRC)						
Chromium (DIS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Sample Type:	Station (Site)	MW-4B	MW-6A	MW-6A	MW-6B	MW-7	MW-8
Water	Sample Date	3/27/2019	3/28/2019	3/28/2019	3/28/2019	3/28/2019	3/28/2019
	Sample Time	4:15:00 PM	11:35:00 AM	11:50:00 AM	12:00:00 PM	10:40:00 AM	9:50:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19030547-001	H19030547-005	H19030547-006	H19030547-007	H19030547-004	H19030547-003
	Sample Number	BBC-1903-215	BBC-1903-219	BBC-1903-220	BBC-1903-221	BBC-1903-218	BBC-1903-217
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Chromium (TRC)						
	Cobalt (DIS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Cobalt (TRC)						
	Copper (DIS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	Copper (TRC)						
	Iron (DIS)	<0.02	<0.02	<0.02	<0.02	0.05	0.1
	Iron (TRC)						
	Lead (DIS)	<0.0003	<0.0003	<0.0003	<0.0003	0.0006	<0.0003
	Lead (TRC)						
	Manganese (DIS)	<0.005	<0.005	<0.005	<0.005	0.016	0.019
	Manganese (TRC)						
	Mercury (DIS)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	Mercury (TRC)						
	Molybdenum (DIS)	<0.002	<0.002	<0.002	<0.002	0.004	0.002
	Molybdenum (TRC)						
	Nickel (DIS)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Nickel (TRC)						
	Selenium (DIS)	<0.0002	0.0002	0.0002	<0.0002	<0.0002	<0.0002
	Selenium (TRC)						
	Silver (DIS)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
	Silver (TRC)						
	Strontium (DIS)	0.174	0.169	0.17	0.238	0.17	0.0877
	Strontium (TRC)						
	Thallium (DIS)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
	Thallium (TRC)						
	Uranium (DIS)	0.0006	0.0007	0.0007	0.0007	0.0023	0.0008
	Uranium (TRC)						
	Zinc (DIS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	Zinc (TRC)						

Sample Type:	Station (Site)	MW-9	RINSATE BLANK	SC15-184	SC15-185	SP-10	SP-11
Water	Sample Date	3/25/2019	3/28/2019	3/28/2019	3/28/2019	3/26/2019	3/27/2019
	Sample Time	5:25:00 PM	1:45:00 PM	11:40:00 AM	12:00:00 PM	4:30:00 PM	8:40:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Hydro	Energy Labs	HYDRO
	Lab Number	H19030476-002	H19030547-009	H19030547-010	z	H19030475-005	z
	Sample Number	BBC-1903-201	BBC-1903-223	BBC-1903-300	BBC-1903-301	BBC-1903-112	BBC-1903-119
	Remarks						

Field Parameters	Multiple Units					
Depth To Water	51.68		Artesian	35.52		
Dissolved Oxygen	0.06		7.12		7.73	
EH	207.06		297.63			
Field pH	7.1		7.91		7.83	
Field Specific Conductivity	784		372		400	
Flow						
Flow					0.01	NM
Staff Gauge						
Water Temperature	8.5		6.3		3.8	
Physical Parameters	mg/L					
Total Dissolved Solids	506	<10	198		218	
Total Suspended Solids	<10	<10	<10		<10	
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	240	<4	190		200	
Calcium (DIS)	91	<1	38		55	
Chloride	1	<1	<1		<1	
Fluoride	0.5	<0.1	0.2		0.1	
Hardness as CaCO3	450	<1	202		221	
Magnesium (DIS)	54	<1	26		20	
Potassium (DIS)	4	<1	<1		<1	
Sodium (DIS)	6	<1	2		2	
Sulfate	198	<1	15		16	
Nutrients	mg/L					
Nitrate + Nitrite as N	<0.01	<0.01	0.25		0.24	
Phosphorus (TOT)						
Total Persulfate Nitrogen						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009	<0.009	<0.009		<0.009	
Antimony (DIS)	<0.0005	<0.0005	<0.0005		<0.0005	
Antimony (TRC)						
Arsenic (DIS)	0.014	<0.001	<0.001		<0.001	
Arsenic (TRC)						
Barium (DIS)	0.016	<0.003	0.092		0.048	
Barium (TRC)						
Beryllium (DIS)	<0.0008	<0.0008	<0.0008		<0.0008	
Beryllium (TRC)						
Cadmium (DIS)	<0.00003	<0.00003	<0.00003		<0.00003	
Cadmium (TRC)						
Chromium (DIS)	<0.01	<0.01	<0.01		<0.01	

Sample Type:	Station (Site)	MW-9	RINSATE BLANK	SC15-184	SC15-185	SP-10	SP-11
Water	Sample Date	3/25/2019	3/28/2019	3/28/2019	3/28/2019	3/26/2019	3/27/2019
	Sample Time	5:25:00 PM	1:45:00 PM	11:40:00 AM	12:00:00 PM	4:30:00 PM	8:40:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Hydro	Energy Labs	HYDRO
	Lab Number	H19030476-002	H19030547-009	H19030547-010	z	H19030475-005	z
	Sample Number	BBC-1903-201	BBC-1903-223	BBC-1903-300	BBC-1903-301	BBC-1903-112	BBC-1903-119
	Remarks						

Metals - Trace Constituents	Multiple Units				
Chromium (TRC)					
Cobalt (DIS)	<0.01	<0.01	<0.01		<0.01
Cobalt (TRC)					
Copper (DIS)	<0.002	<0.002	<0.002		<0.002
Copper (TRC)					
Iron (DIS)	0.86	<0.02	<0.02		<0.02
Iron (TRC)					
Lead (DIS)	0.0013	<0.0003	<0.0003		<0.0003
Lead (TRC)					
Manganese (DIS)	0.088	<0.005	<0.005		<0.005
Manganese (TRC)					
Mercury (DIS)	<0.005	<0.005	<0.005		<0.005
Mercury (TRC)					
Molybdenum (DIS)	<0.002	<0.002	<0.002		<0.002
Molybdenum (TRC)					
Nickel (DIS)	<0.001	<0.001	<0.001		<0.001
Nickel (TRC)					
Selenium (DIS)	<0.0002	<0.0002	0.001		0.0003
Selenium (TRC)					
Silver (DIS)	<0.0002	<0.0002	<0.0002		<0.0002
Silver (TRC)					
Strontium (DIS)	1.34	<0.0002	0.123		0.107
Strontium (TRC)					
Thallium (DIS)	0.0027	<0.0002	<0.0002		<0.0002
Thallium (TRC)					
Uranium (DIS)	0.001	<0.0002	0.0011		0.0007
Uranium (TRC)					
Zinc (DIS)	<0.002	<0.002	<0.002		<0.002
Zinc (TRC)					

Sample Type:	Station (Site)	SP-12	SP-3	SP-4	SP-6	SP-6	SP-7
Water	Sample Date	3/27/2019	3/26/2019	3/26/2019	3/26/2019	3/26/2019	3/27/2019
	Sample Time	10:10:00 AM	10:45:00 AM	9:25:00 AM	1:55:00 PM	2:15:00 PM	10:50:00 AM
	Lab	Energy Labs	HYDRO	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19030475-007	z	H19030475-001	H19030475-002	H19030475-003	H19030475-008
	Sample Number	BBC-1903-122	BBC-1903-102	BBC-1903-100	BBC-1903-107	BBC-1903-108	BBC-1903-123
	Remarks					DUPLICATE	

Field Parameters	Multiple Units					
Depth To Water						
Dissolved Oxygen	4.18		9.66	9.68	9.68	2.46
EH						
Field pH	7.25		8.02	8.17	8.17	7.1
Field Specific Conductivity	437		438	256	256	341
Flow						
Flow	NM	NM-ICE	2.6	0.83		13.02
Staff Gauge						
Water Temperature	4.3		5.6	4.7	4.7	6.6
Physical Parameters	mg/L					
Total Dissolved Solids	245		234	163	156	186
Total Suspended Solids	<10		<10	<10	<10	<10
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	160		200	140	140	170
Calcium (DIS)	42		50	35	35	45
Chloride	15		<1	<1	<1	2
Fluoride	0.1		0.2	0.2	0.2	0.3
Hardness as CaCO3	180		231	142	141	175
Magnesium (DIS)	18		26	13	13	15
Potassium (DIS)	13		2	<1	<1	3
Sodium (DIS)	3		2	2	2	5
Sulfate	21		40	9	9	11
Nutrients	mg/L					
Nitrate + Nitrite as N	0.15		0.24	0.39	0.39	0.31
Phosphorus (TOT)						
Total Persulfate Nitrogen						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009		<0.009	0.045	0.041	<0.009
Antimony (DIS)	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005
Antimony (TRC)						
Arsenic (DIS)	<0.001		<0.001	<0.001	<0.001	0.004
Arsenic (TRC)						
Barium (DIS)	0.128		0.113	0.188	0.186	0.115
Barium (TRC)						
Beryllium (DIS)	<0.0008		<0.0008	<0.0008	<0.0008	<0.0008
Beryllium (TRC)						
Cadmium (DIS)	<0.00003		<0.00003	<0.00003	<0.00003	<0.00003
Cadmium (TRC)						
Chromium (DIS)	<0.01		<0.01	<0.01	<0.01	<0.01

Sample Type:	Station (Site)	SP-12	SP-3	SP-4	SP-6	SP-6	SP-7
Water	Sample Date	3/27/2019	3/26/2019	3/26/2019	3/26/2019	3/26/2019	3/27/2019
	Sample Time	10:10:00 AM	10:45:00 AM	9:25:00 AM	1:55:00 PM	2:15:00 PM	10:50:00 AM
	Lab	Energy Labs	HYDRO	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19030475-007	z	H19030475-001	H19030475-002	H19030475-003	H19030475-008
	Sample Number	BBC-1903-122	BBC-1903-102	BBC-1903-100	BBC-1903-107	BBC-1903-108	BBC-1903-123
	Remarks					DUPLICATE	
Metals - Trace Constituents	Multiple Units						
Chromium (TRC)							
Cobalt (DIS)	<0.01		<0.01	<0.01	<0.01	<0.01	
Cobalt (TRC)							
Copper (DIS)	0.002		<0.002	<0.002	<0.002	<0.002	
Copper (TRC)							
Iron (DIS)	0.05		<0.02	0.03	0.03	<0.02	
Iron (TRC)							
Lead (DIS)	<0.0003		<0.0003	<0.0003	<0.0003	<0.0003	
Lead (TRC)							
Manganese (DIS)	<0.005		<0.005	<0.005	<0.005	<0.005	
Manganese (TRC)							
Mercury (DIS)	0.018		<0.005	<0.005	<0.005	<0.005	
Mercury (TRC)							
Molybdenum (DIS)	<0.002		<0.002	<0.002	<0.002	<0.002	
Molybdenum (TRC)							
Nickel (DIS)	<0.001		<0.001	<0.001	<0.001	<0.001	
Nickel (TRC)							
Selenium (DIS)	<0.0002		0.0003	<0.0002	<0.0002	0.0003	
Selenium (TRC)							
Silver (DIS)	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	
Silver (TRC)							
Strontium (DIS)	0.081		0.0725	0.0734	0.074	0.17	
Strontium (TRC)							
Thallium (DIS)	<0.0002		0.0003	0.0005	0.0005	0.0011	
Thallium (TRC)							
Uranium (DIS)	0.0003		0.0005	0.0004	0.0004	0.001	
Uranium (TRC)							
Zinc (DIS)	0.005		<0.002	<0.002	<0.002	<0.002	
Zinc (TRC)							

Sample Type:	Station (Site)	SW-1	SW-10	SW-11	SW-14	SW-14	SW-17
Water	Sample Date	3/27/2019	3/26/2019	3/26/2019	3/27/2019	3/27/2019	3/27/2019
	Sample Time	9:00:00 AM	6:30:00 PM	12:30:00 PM	3:55:00 PM	4:20:00 PM	9:35:00 AM
	Lab	Energy Labs	HYDRO	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19030477-003	z	H19030477-001	H19030548-002	H19030548-003	H19030477-004
	Sample Number	BBC-1903-120	BBC-1903-115	BBC-1903-105	BBC-1903-125	BBC-1903-126	BBC-1903-121
	Remarks					DUPLICATE	

Field Parameters	Multiple Units					
Depth To Water						
Dissolved Oxygen	11.47	10.32	10.92	10.41	10.41	9.87
EH						
Field pH	7.86	8.1	8.23	7.81	7.81	7.65
Field Specific Conductivity	309	238	343	269	269	420
Flow	NM-ICE	NM-ICE	NM-ICE	1.14		NM-ICE
Flow						
Staff Gauge				0.4	0.4	
Water Temperature	0.5	0.41	0.1	3.2	3.2	1.7
Physical Parameters	mg/L					
Total Dissolved Solids	180 D		215 D	157 D	162 D	243 D
Total Suspended Solids	4		6	<4	<4	<4
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	150		170	130	130	170
Calcium (DIS)	43		44	34	34	49
Chloride	4		1	2	2	11
Fluoride	<0.1		0.2	<0.1	<0.1	0.2
Hardness as CaCO3	156		193	134	136	211
Magnesium (DIS)	12		20	12	12	22
Potassium (DIS)	3		2	4	4	4
Sodium (DIS)	3		2	1	1	5
Sulfate	7		25	7	6	30
Nutrients	mg/L					
Nitrate + Nitrite as N	0.09		0.19	0.05	0.05	0.16
Phosphorus (TOT)	0.05		0.046	0.105	0.104	0.056
Total Persulfate Nitrogen	0.48		0.47	0.57	0.51	0.7
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	0.03		0.014	0.012	0.011	<0.009
Antimony (DIS)						
Antimony (TRC)	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (DIS)						
Arsenic (TRC)	<0.001		<0.001	<0.001	<0.001	<0.001
Barium (DIS)						
Barium (TRC)	0.106		0.101	0.077	0.075	0.144
Beryllium (DIS)						
Beryllium (TRC)	<0.0008		<0.0008	<0.0008	<0.0008	<0.0008
Cadmium (DIS)						
Cadmium (TRC)	<0.00003		<0.00003	<0.00003	<0.00003	<0.00003
Chromium (DIS)						

Sample Type:	Station (Site)	SW-1	SW-10	SW-11	SW-14	SW-14	SW-17
Water	Sample Date	3/27/2019	3/26/2019	3/26/2019	3/27/2019	3/27/2019	3/27/2019
	Sample Time	9:00:00 AM	6:30:00 PM	12:30:00 PM	3:55:00 PM	4:20:00 PM	9:35:00 AM
	Lab	Energy Labs	HYDRO	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19030477-003	z	H19030477-001	H19030548-002	H19030548-003	H19030477-004
	Sample Number	BBC-1903-120	BBC-1903-115	BBC-1903-105	BBC-1903-125	BBC-1903-126	BBC-1903-121
	Remarks					DUPLICATE	
Metals - Trace Constituents	Multiple Units						
Chromium (TRC)		<0.01	<0.01	<0.01	<0.01	<0.01	
Cobalt (DIS)							
Cobalt (TRC)		<0.01	<0.01	<0.01	<0.01	<0.01	
Copper (DIS)							
Copper (TRC)		<0.002	<0.002	<0.002	<0.002	<0.002	
Iron (DIS)							
Iron (TRC)		0.3	0.32	0.13	0.14	0.26	
Lead (DIS)							
Lead (TRC)		<0.0003	0.0003	<0.0003	<0.0003	<0.0003	
Manganese (DIS)							
Manganese (TRC)		0.021	0.013	0.006	0.006	0.034	
Mercury (DIS)							
Mercury (TRC)		0.007	<0.005	0.018	0.018	0.009	
Molybdenum (DIS)							
Molybdenum (TRC)		<0.002	<0.002	<0.002	<0.002	<0.002	
Nickel (DIS)							
Nickel (TRC)		<0.001	<0.001	<0.001	<0.001	<0.001	
Selenium (DIS)							
Selenium (TRC)		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Silver (DIS)							
Silver (TRC)		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Strontium (DIS)							
Strontium (TRC)		0.113 D	0.136 D	0.0749 D	0.0756 D	0.12 D	
Thallium (DIS)							
Thallium (TRC)		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Uranium (DIS)							
Uranium (TRC)		0.0003	0.001	0.0003	0.0003	0.0006	
Zinc (DIS)							
Zinc (TRC)		<0.002	0.002	<0.002	0.002	0.003	

Sample Type:	Station (Site)	SW-18	SW-2	SW-3	SW-4	SW-5	SW-6
Water	Sample Date	3/26/2019	3/28/2019	3/26/2019	3/26/2019	3/26/2019	3/27/2019
	Sample Time	2:30:00 PM	9:10:00 AM	6:30:00 PM	6:00:00 PM	11:40:00 AM	3:30:00 PM
	Lab	HYDRO	Energy Labs	Energy Labs	HYDRO	HYDRO	Energy Labs
	Lab Number	z	H19030548-005	H19030477-002	z	z	H19030548-001
	Sample Number	BBC-1903-109	BBC-1903-129	BBC-1903-117	BBC-1903-116	BBC-1903-104	BBC-1903-124
	Remarks						

Field Parameters	Multiple Units					
Depth To Water						
Dissolved Oxygen		11.06	8.93			10.38
EH						
Field pH		8.14	8.01			7.72
Field Specific Conductivity		322	290			137
Flow	NM-DRY	NM-ICE	NM-ICE	NM-ICE		NM-ICE
Flow					NM-DRY	
Staff Gauge						
Water Temperature		0.1	2.2			0.9
Physical Parameters	mg/L					
Total Dissolved Solids		181 D	195 D			100 D
Total Suspended Solids		4	<4			16
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3		160	150			65
Calcium (DIS)		48	37			15
Chloride		3	3			<1
Fluoride		<0.1	0.1			<0.1
Hardness as CaCO3		170	168			65
Magnesium (DIS)		12	19			7
Potassium (DIS)		1	4			5
Sodium (DIS)		3	2			<1
Sulfate		7	19			3
Nutrients	mg/L					
Nitrate + Nitrite as N		0.07	<0.01			0.02
Phosphorus (TOT)		0.012	0.094			0.237
Total Persulfate Nitrogen		0.17	0.3			0.78
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)		0.033	<0.009			0.02
Antimony (DIS)						
Antimony (TRC)		<0.0005	<0.0005			<0.0005
Arsenic (DIS)						
Arsenic (TRC)		<0.001	<0.001			0.001
Barium (DIS)						
Barium (TRC)		0.1	0.116			0.057
Beryllium (DIS)						
Beryllium (TRC)		<0.0008	<0.0008			<0.0008
Cadmium (DIS)						
Cadmium (TRC)		<0.00003	<0.00003			0.00003
Chromium (DIS)						

Sample Type:	Station (Site)	SW-18	SW-2	SW-3	SW-4	SW-5	SW-6
Water	Sample Date	3/26/2019	3/28/2019	3/26/2019	3/26/2019	3/26/2019	3/27/2019
	Sample Time	2:30:00 PM	9:10:00 AM	6:30:00 PM	6:00:00 PM	11:40:00 AM	3:30:00 PM
	Lab	HYDRO	Energy Labs	Energy Labs	HYDRO	HYDRO	Energy Labs
	Lab Number	z	H19030548-005	H19030477-002	z	z	H19030548-001
	Sample Number	BBC-1903-109	BBC-1903-129	BBC-1903-117	BBC-1903-116	BBC-1903-104	BBC-1903-124
	Remarks						

Metals - Trace Constituents Multiple Units					
Chromium (TRC)	<0.01	<0.01			<0.01
Cobalt (DIS)					
Cobalt (TRC)	<0.01	<0.01			<0.01
Copper (DIS)					
Copper (TRC)	<0.002	<0.002			0.002
Iron (DIS)					
Iron (TRC)	0.28	0.06			0.73
Lead (DIS)					
Lead (TRC)	<0.0003	<0.0003			0.0006
Manganese (DIS)					
Manganese (TRC)	0.015	<0.005			0.026
Mercury (DIS)					
Mercury (TRC)	<0.005	0.006			0.034
Molybdenum (DIS)					
Molybdenum (TRC)	<0.002	<0.002			<0.002
Nickel (DIS)					
Nickel (TRC)	<0.001	<0.001			<0.001
Selenium (DIS)					
Selenium (TRC)	<0.0002	<0.0002			<0.0002
Silver (DIS)					
Silver (TRC)	<0.0002	<0.0002			<0.0002
Strontium (DIS)					
Strontium (TRC)	0.126 D	0.0938 D			0.0476 D
Thallium (DIS)					
Thallium (TRC)	<0.0002	<0.0002			<0.0002
Uranium (DIS)					
Uranium (TRC)	0.0004	0.0006			<0.0002
Zinc (DIS)					
Zinc (TRC)	<0.002	<0.002			0.005

Sample Type:	Station (Site)	SW-7	SW-8	SW-9	USGS-SC1
Water	Sample Date	3/26/2019	3/29/2019	3/26/2019	3/28/2019
	Sample Time	2:50:00 PM	5:10:00 PM	5:40:00 PM	9:45:00 AM
	Lab	HYDRO	HYDRO	HYDRO	Energy Labs
	Lab Number	z	z	z	H19030548-006
	Sample Number	BBC-1903-110	BBC-1903-127	BBC-1903-114	BBC-1903-130
	Remarks				

Field Parameters	Multiple Units			
Depth To Water				
Dissolved Oxygen			9.93	11.21
EH				
Field pH			7.95	8.11
Field Specific Conductivity			361	366
Flow		NM-ICE	0.6	NM-ICE
Flow	NF-DRY			
Staff Gauge				
Water Temperature			1.9	0.1
Physical Parameters	mg/L			
Total Dissolved Solids				196 D
Total Suspended Solids				4
Major Constituents - Commons Ions	mg/L			
Alkalinity as CaCO3				180
Calcium (DIS)				57
Chloride				3
Fluoride				<0.1
Hardness as CaCO3				199
Magnesium (DIS)				14
Potassium (DIS)				1
Sodium (DIS)				3
Sulfate				7
Nutrients	mg/L			
Nitrate + Nitrite as N				0.08
Phosphorus (TOT)				0.007
Total Persulfate Nitrogen				0.14
Metals - Trace Constituents	Multiple Units			
Aluminum (DIS)				<0.009
Antimony (DIS)				
Antimony (TRC)				<0.0005
Arsenic (DIS)				
Arsenic (TRC)				<0.001
Barium (DIS)				
Barium (TRC)				0.068
Beryllium (DIS)				
Beryllium (TRC)				<0.0008
Cadmium (DIS)				
Cadmium (TRC)				<0.00003
Chromium (DIS)				

Sample Type:	Station (Site)	SW-7	SW-8	SW-9	USGS-SC1
Water	Sample Date	3/26/2019	3/29/2019	3/26/2019	3/28/2019
	Sample Time	2:50:00 PM	5:10:00 PM	5:40:00 PM	9:45:00 AM
	Lab	HYDRO	HYDRO	HYDRO	Energy Labs
	Lab Number	z	z	z	H19030548-006
	Sample Number	BBC-1903-110	BBC-1903-127	BBC-1903-114	BBC-1903-130
	Remarks				

Metals - Trace Constituents Multiple Units	
Chromium (TRC)	<0.01
Cobalt (DIS)	
Cobalt (TRC)	<0.01
Copper (DIS)	
Copper (TRC)	<0.002
Iron (DIS)	
Iron (TRC)	0.19
Lead (DIS)	
Lead (TRC)	<0.0003
Manganese (DIS)	
Manganese (TRC)	0.01
Mercury (DIS)	
Mercury (TRC)	<0.005
Molybdenum (DIS)	
Molybdenum (TRC)	<0.002
Nickel (DIS)	
Nickel (TRC)	<0.001
Selenium (DIS)	
Selenium (TRC)	<0.0002
Silver (DIS)	
Silver (TRC)	<0.0002
Strontium (DIS)	
Strontium (TRC)	0.148 D
Thallium (DIS)	
Thallium (TRC)	<0.0002
Uranium (DIS)	
Uranium (TRC)	0.0005
Zinc (DIS)	
Zinc (TRC)	<0.002

QUALITY CONTROL / QUALITY ASSURANCE
DATA VERIFICATION REPORT

BLACK BUTTE COPPER
WATER RESOURCE MONITORING

APRIL 2019

Prepared by
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MAY 2019

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APPENDIX 2: DATABASE SUMMARY REPORT

GLOSSARY OF TERMS

CCB ..... Continuing Calibration Blank

CCV ..... Continuing Calibration Verification

CLP ..... Contract Laboratory Program

CRDL..... Contract Required Detection Limit

DIé é é é é Deionized Water

FAA ..... Flame Atomic Absorption

GFAA..... Graphite Furnace Atomic Absorption

HGAA ..... Hydride Generation Atomic Absorption

ICB..... Initial Calibration Blank

ICP ..... Inductively Coupled Plasma

ICV ..... Initial Calibration Verification

IDL..... Instrument Detection Limit

LCS ..... Laboratory Control Sample

MSA..... Method of Standard Additions

PB ..... Preparation Blank

PRDL ..... Project Required Detection Limit

QAPP ..... Quality Assurance Project Plan

QC..... Quality Control

RPD..... Relative Percent Difference

RSD..... Relative Standard Deviation

SOW..... Statement of Work

TDS..... Total Dissolved Solids

DATA VALIDATION REPORT

1. INTRODUCTION

This validation applies to 28 samples collected for the Black Butte Tintina surface water and groundwater monitoring program. All sampling occurred in April 2019. All samples were submitted to Energy Laboratories in Helena, Montana and were assigned Laboratory IDs: H19040763. The total number of samples included: 17 groundwater and surface water samples including 2 field duplicates, and 2 field deionized (DI and Rinsate) blanks.

- Validation procedures used are generally consistent with:
  (Check all that apply)
  _X_ EPA CLP National Functional Guidelines for Inorganics Data Review
  _X_ EPA CLP National Functional Guidelines for Organic Data Review
  _X_ Montana Department of Environmental Quality, Data Validation Guidelines for Evaluating Analytical Data, Hydrometrics, September 2010

2. DELIVERABLES

- All laboratory document deliverables were present as specified in the CLP-Statement of Work and/or the project contract
  _X_ Yes
  ___ No

- All documentation of field procedures was provided as required
  _X_ Yes
  ___ No

3. FIELD QUALITY CONTROL SAMPLES

- Field blanks
  Please note that the highest blank value associated with any particular analyte is the blank value used for the flagging process.
  DI, trip, rinsate, or any other field blanks have been carried out at the proper frequency
  _X_ Yes
  ___ No

  Reported results on the field blanks are less than the contract required detection limits (CRDL) or the project required detection limits (PRDL) if project detection limits have been specified
  _X_ Yes
  ___ No

- Field duplicates
  Field duplicates have been collected at the proper frequency
  _X_ Yes
  ___ No

  Field duplicate relative percent differences (RPDs) were within the required control limits (25 percent or less for water matrix and 50 percent or less for soil matrix)
  ___ Yes
  _X_ No ï see following table

Date	Site Code	Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Number of Flags
4/24/19	SW-1	Total Suspended Solids	<4	54	19
		Iron (TRC)	2.11	1.45	8

J ï Duplicate sample exceeded QA/QC comparison control limits.

4. LABORATORY PROCEDURES

- Laboratory Case Narrative Notes any non conformance issues with the analytical data
  ___Yes
  ___No
  _X_NA

- Samples were received by the laboratory at the proper temperature
  _X_Yes
  ___No

- Holding times met
  ___Yes
  _X_No - see following notes
  NOTES: Sample BBC-1904-126 Total Suspended Solids analysis was reanalyzed past holding time to confirm result. Reanalysis and analytical duplicate values were reported and flagged with an H.

- Consistency with project requirements
  _X_Yes
  ___No

- Sample Conditions met at Check-in
  _X_Yesï see following notes
  ___No
  NOTES: In the Energy Laboratory sample check in for H19040763 it was noted that the laboratory did not received sample BBC-1904-121 which was indicated on the COC. Lab confirmed analysis was not needed per discussion with Hydrometrics staff.

- Reporting units appropriate for the associated sample matrix and methods of analysis
  _X_Yes
  ___No

- Project specified methods were used
  _X_Yesï see following list of methods used
  ___No
  NOTES: It should be noted that parameters were analyzed using different methods than requested; however, all methods used by the laboratory are comparable. The following methods were used during analyses: A2540D, A2540C, A2320B, E300.0, A4500-F C, A2340B, E353.2, A4500-N C, E365.1, E200.8, and E200.7.

- Detection Limits met project required detection limits (PRDL)

  _X_ Yesï see following notes

  ___ No

  NOTES: It should be noted that total dissolved solids and strontium had a reporting limit increases due to sample matrix interference (D). TDS had a limit of 10 mg/l used not the requested 4 mg/l. Strontium had the 0.0003 mg/l reporting limit was used in place of the requested 0.0002 mg/l. In addition, a reporting limit of 0.01 mg/l was used for nitrate + nitrite as n as replacement of the 0.003 mg/l requested.

5. INITIAL OR CONTINUING CALIBRATION VERIFICATION RESULTS

- Initial or Continuing Calibration Verification samples were within acceptable limits

  _X_ Yes

  ___ No

6. LABORATORY BLANKS

- **PREPARATION/METHOD BLANKS**

  Preparation/Method blanks were prepared and analyzed at the required frequency

  _X_ Yes

  ___ No

  All analytes in the preparation blank were less than the CRDL (or PRDL if a project detection limit has been specified)

  _X_ Yes

  ___ No

7. MATRIX SPIKE /MATRIX SPIKE DUPLICATES (MS/MSD)

- Matrix spike samples were analyzed at the proper frequency

  _X_ Yes

  ___ No

- Matrix spike recoveries were within control limits

  ___ Yes

  _X_ No ï see following table

QC Sample ID	Parameter	% REC	Lab Flag	Lab Advisory Limits (% REC)
H19040763-013CMS	Silver	148	S	70 ï 130
H19040763-021CMS3	Silver	142	S	70 ï 130
H19040763-005BMS3	Silver	146	S	70 ï 130

S ï Spike recovery outside of recovery limits

- Matrix spike RPDôs were within control limits

  _X_ Yes

  ___ No

- Matrix spike duplicate samples were analyzed at the proper frequency

  _X_ Yes

  ___ No

- Matrix spike duplicate RPDôs were within control limits
  _X_ Yes
  ___ No

- Matrix spike duplicate recoveries were within the laboratory specified control limits.
  ___ Yes
  _X_ No ï see following table

QC Sample ID	Parameter	% REC	Lab Flag	Lab Advisory Limits (% REC)
H19040763-013AMSD	Total Nitrogen	88	S	90-110
H19040763-013CMSD	Silver	146	S	70 ï 130
H19040763-021CMSD	Silver	147	S	70 ï 130
H19040763-005BMSD	Silver	148	S	70 ï 130

S ï Spike recovery outside of recovery limits

8. LABORATORY CONTROL SAMPLES

- LCS Samples

Laboratory Control Samples used the correct matrix and concentrations
___ Yes
___ No
_X_ NA

Laboratory Control Samples were prepared and analyzed at the required frequency
___ Yes
___ No
_X_ NA

All analytes in the laboratory control samples were less than the control limits specified
_X_ Yes
___ No

9. DATA QUALITY OBJECTIVES

- Project data quality objectives (DQOs) met
  _X_ Yes
  ___ No

Accuracy

Accuracy for this project is the degree of agreement between an analytical measurement and a reference accepted as a true value. The accuracy of a measurement system can be affected by errors introduced by field contamination, sample preservation, sample handling, sample preparation and analytical techniques. Analysis of MS/MSD samples, laboratory control spikes (LCS) or blank spikes, surrogate standards and method blanks are typically used to calculate the percent recovery for evaluating accuracy. Accuracy for this sampling event was 97 percent.

Precision

Precision for this project is the degree of mutual agreement between individual measurements of the same property under similar conditions. Combined field and laboratory precision is evaluated by collecting and analyzing field duplicate and then calculating the variance between

the samples, typically as a relative percent difference (RPD). Laboratory analytical precision is evaluated by analyzing matrix spike/matrix spike duplicate samples and using the results to calculate an RPD. The combined precision was 97 percent for this sampling event for both laboratory and field.

Representativeness

Representativeness for this project is the degree to which sample data accurately and precisely represent the characteristics of a population, and variations in a parameter at a sampling point or an environmental condition that they are intended to represent. Typically representative data will be obtained through careful selection of sampling locations and analytical parameters; proper collection and handling of samples and through use and consistent application of established field and laboratory procedures. Evaluation of field and laboratory blank samples for presence of contaminants can be useful in evaluating representativeness of sample results. Both laboratory and field representativeness for this sampling event was 100 percent.

Completeness

The target completeness for this project is the percent of the measurements valid (not rejected). Valid data are obtained when samples are collected and analyzed in accordance with quality control procedures outlined in the SAP, and when none of the QC criteria that affect data usability are exceeded. Once data validation is complete the number of useable sample results is divided by the total number of sample results planned for the investigation to determine the percent completeness. Completeness for this sampling event was 100 percent.

Comparability

Comparability is the expression of the confidence with which one data set can be compared with another. Comparability of data is achieved by consistently following standard field and laboratory procedures and by using standard measurement units in reporting analytical data. This criterion was met.

REFERENCES

Montana Department of Environmental Quality, Data Validation Guidelines for Evaluating Analytical Data (Updated August 5, 2010)

EPA, 2017a. National Functional Guidelines for Organic Superfund Methods Data Review. EPA-540-R-2017-002. Office of Superfund Remediation and Technology Innovation. January 2017.

EPA, 2017b. National Functional Guidelines for Inorganic Superfund Methods Data Review. EPA-540-R-2017-001. Office of Superfund Remediation and Technology Innovation. January 2017.

Hem, J.D., 1992. Study and Interpretation of the Chemical Characteristics of Natural Water, 3rd edition. US Geological Survey Water Supply Paper 2254.

APPENDIX 1

TABLES

TABLE 1.

DATA VALIDATION CODES AND DEFINITIONS

CODE	DEFINITION
J	-The associated numerical value is an estimated quantity because quality control criteria were not met.
U	- Blank contamination. Indicates possible high bias and / or false positive. The associated value is an estimate.
R	- Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis is necessary for verification.
A	- Anomalous data. No apparent explanation for discrepancy in data. (Not an EPA code.)

Table 2. Summary of Flagged Data

StationName	Sample Date	Field Sample Id	Lab Name	Lab Sample Id	Parameter Name	Sample Result	Reporting Units	Validation Flag	Exceedance Type
DI-Blank	4/24/2019	BBC-1904-126	Energy Labs	H19040763-012	Total Suspended Solids	<10	mg/L	H	Holding Time Exceeded
DS-1	4/23/2019	BBC-1904-107	Energy Labs	H19040763-002	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance
DS-3	4/24/2019	BBC-1904-118	Energy Labs	H19040763-005	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance
DS-4	4/24/2019	BBC-1904-119	Energy Labs	H19040763-006	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance
SP-10	4/23/2019	BBC-1904-106	Energy Labs	H19040763-001	Total Suspended Solids	399	mg/L	J	Duplicate Exceedance
SP-12	4/23/2019	BBC-1904-111	Energy Labs	H19040763-004	Total Suspended Solids	16	mg/L	J	Duplicate Exceedance
SP-3	4/24/2019	BBC-1904-120	Energy Labs	H19040763-007	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance
SP-4	4/24/2019	BBC-1904-123	Energy Labs	H19040763-009	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance
SP-6	4/24/2019	BBC-1904-122	Energy Labs	H19040763-008	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance
SP-7	4/24/2019	BBC-1904-125	Energy Labs	H19040763-011	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance
SP-7	4/24/2019	BBC-1904-124	Energy Labs	H19040763-010	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance
SW-1	4/24/2019	BBC-1904-114	Energy Labs	H19040763-017	Total Suspended Solids	54	mg/L	J	Duplicate Exceedance
SW-1	4/24/2019	BBC-1904-113	Energy Labs	H19040763-016	Total Suspended Solids	<4	mg/L	J	Duplicate Exceedance
SW-1	4/24/2019	BBC-1904-113	Energy Labs	H19040763-016	Iron (TRC)	2.11	mg/L	J	Duplicate Exceedance
SW-1	4/24/2019	BBC-1904-114	Energy Labs	H19040763-017	Iron (TRC)	1.45	mg/L	J	Duplicate Exceedance
SW-14	4/23/2019	BBC-1904-112	Energy Labs	H19040763-015	Total Suspended Solids	18	mg/L	J	Duplicate Exceedance
SW-14	4/23/2019	BBC-1904-112	Energy Labs	H19040763-015	Iron (TRC)	0.15	mg/L	J	Duplicate Exceedance
SW-17	4/24/2019	BBC-1904-115	Energy Labs	H19040763-018	Total Suspended Solids	54	mg/L	J	Duplicate Exceedance
SW-17	4/24/2019	BBC-1904-115	Energy Labs	H19040763-018	Iron (TRC)	0.11	mg/L	J	Duplicate Exceedance
SW-18	4/23/2019	BBC-1904-109	Energy Labs	H19040763-013	Total Suspended Solids	<4	mg/L	J	Duplicate Exceedance
SW-18	4/23/2019	BBC-1904-109	Energy Labs	H19040763-013	Iron (TRC)	0.17	mg/L	J	Duplicate Exceedance
SW-2	4/24/2019	BBC-1904-116	Energy Labs	H19040763-019	Total Suspended Solids	<4	mg/L	J	Duplicate Exceedance
SW-2	4/24/2019	BBC-1904-116	Energy Labs	H19040763-019	Iron (TRC)	1.45	mg/L	J	Duplicate Exceedance
SW-3	4/23/2019	BBC-1904-110	Energy Labs	H19040763-014	Total Suspended Solids	16	mg/L	J	Duplicate Exceedance
SW-3	4/23/2019	BBC-1904-110	Energy Labs	H19040763-014	Iron (TRC)	0.7	mg/L	J	Duplicate Exceedance
SW-7	4/23/2019	BBC-1904-108	Energy Labs	H19040763-003	Total Suspended Solids	15	mg/L	J	Duplicate Exceedance
USGS-SC1	4/24/2019	BBC-1904-117	Energy Labs	H19040763-020	Total Suspended Solids	40	mg/L	J	Duplicate Exceedance
USGS-SC1	4/24/2019	BBC-1904-117	Energy Labs	H19040763-020	Iron (TRC)	1.22	mg/L	J	Duplicate Exceedance

Black Butte Mine Data Comparison Summary

Report Date: May 30, 2019

SAMPLE NO BBC-1904-107	LAB NO: H19040763-002	STATION:DS-1

04/23/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	8.53	03/25/15-04/23/19	O	32	32	8.15	13.4	9.63	9.49	1.25	0.88	
pH Fld (s.u.)	7.81	03/25/15-04/23/19	O	31	31	7.36	8.56	7.78	7.79	0.28	0.09	
SC Fld (umhos/cm)	388	03/25/15-04/23/19	O	32	32	337.0	698.7	417.8	418	51.9	0.6	
Flow (Gallons Per Min)	49.8	03/25/15-04/23/19	O	28	28	0.1	62.3	5.3	6.1	13.3	3.3	*
Water Temp (Deg C)	4.5	03/25/15-04/23/19	O	32	32	0.5	18.3	5.2	6.3	3.7	0.2	
TDS (mg/L)	214	03/25/15-04/23/19	O	32	32	203.0	245.0	229.3	230.5	10.7	1.4	
TSS (mg/L)	< 10	03/25/15-04/23/19	O	32	11	< 10	1130.0					
Tot Alk (mg/L)	200	03/25/15-04/23/19	O	32	32	180.0	220.0	213.5	220	9.4	1.4	
Ca (mg/L)	53	03/25/15-04/23/19	O	32	32	46.0	62.0	56.3	57	3	1.1	
Cl (mg/L)	< 1	03/25/15-04/23/19	O	32	0	< 1	< 1					
F (mg/L)	0.1	03/25/15-04/23/19	O	32	30	0.1	0.1	0.1	0.1	0	0.0	H
Tot Hard (mg/L)	211	03/25/15-04/23/19	O	32	32	185.0	249.0	227.3	229	12.4	1.3	
Mg (mg/L)	19	03/25/15-04/23/19	O	32	32	17.0	23.0	21.0	21	1.3	1.6	
K (mg/L)	< 1	03/25/15-04/23/19	O	32	0	< 1	< 1					
Na (mg/L)	1	03/25/15-04/23/19	O	32	32	1.0	2.0	1.8	2	0.4	2.0	L
SO4 (mg/L)	14	03/25/15-04/23/19	O	32	32	11.0	18.0	14.6	15	1.7	0.4	
N+N (mg/L)	0.24	03/25/15-04/23/19	O	32	32	0.03	0.26	0.17	0.2	0.06	1.09	
Al (DIS) (mg/L)	< 0.009	03/25/15-04/23/19	O	32	1	< 0.009	0.024					
Sb (DIS) (mg/L)	< 0.0005	03/25/15-04/23/19	O	31	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	03/25/15-04/23/19	O	31	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.045	03/25/15-04/23/19	O	31	31	0.041	0.074	0.051	0.049	0.007	0.851	
Be (DIS) (mg/L)	< 0.0008	03/25/15-04/23/19	O	31	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	03/25/15-04/23/19	O	31	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	03/25/15-04/23/19	O	31	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	03/25/15-04/23/19	O	31	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	03/25/15-04/23/19	O	31	1	< 0.002	0.007					
Fe (DIS) (mg/L)	< 0.02	03/25/15-04/23/19	O	31	2	< 0.02	0.06					
Pb (DIS) (mg/L)	< 0.0003	03/25/15-04/23/19	O	31	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	03/25/15-04/23/19	O	31	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	03/25/15-04/23/19	O	30	0	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	03/25/15-04/23/19	O	31	0	< 0.002	< 0 .002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Ni (DIS) (mg/L)	< 0.001	03/25/15-04/23/19	O	31	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	03/25/15-04/23/19	O	31	9	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	03/25/15-04/23/19	O	31	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.0942	03/25/15-04/23/19	O	31	31	0.0847	0.119	0.1063	0.106	0.007	1.735	
Tl (DIS) (mg/L)	< 0.0002	03/25/15-04/23/19	O	31	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0005	03/25/15-04/23/19	O	31	3	0.0005	< .008					
Zn (DIS) (mg/L)	0.01	03/25/15-04/23/19	O	31	24	< 0	0.03	0.01	0.01	0.01	0.39	

SAMPLE NO BBC-1904-104 LAB NO: z

STATION:DS-2

04/23/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Gallons Per Min)	-9999	10/12/11-08/19/14	OBS	2	2	0.3	0.8	0.4	0.5	2.2	4545.2	*L

SAMPLE NO BBC-1904-118 LAB NO: H19040763-005

STATION:DS-3

04/24/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	0	08/06/14-04/24/19	O	29	29	0.0	10.8	4.5	7	2.6	1.7	L
pH Fld (s.u.)	7.92	08/06/14-04/24/19	O	29	29	5.56	8.7	7.03	7.17	0.97	0.91	
SC Fld (umhos/cm)	32	08/06/14-04/24/19	O	29	29	32.0	132.0	56.8	56	19.6	1.3	L
Flow (Gallons Per Min)	-9999	08/06/14-04/24/19	O	25	25	-9999.0	159.0	2.6	4.9	22.2	450.5	*L
Water Temp (Deg C)	7	08/06/14-04/24/19	O	29	29	3.8	15.1	8.3	9.2	2.9	0.5	
TDS (mg/L)	68	08/06/14-04/24/19	O	29	29	47.0	128.0	70.5	67	22.8	0.1	
TSS (mg/L)	< 10	08/06/14-04/24/19	O	29	4	< 4	95.0					
Tot Alk (mg/L)	14	08/06/14-04/24/19	O	29	29	14.0	29.0	22.0	23	3.1	2.6	L
Ca (mg/L)	4	08/06/14-04/24/19	O	29	29	4.0	7.0	5.9	6	0.6	3.2	*L
Cl (mg/L)	< 1	08/06/14-04/24/19	O	29	3	< 1	< 1					
F (mg/L)	< 0.1	08/06/14-04/24/19	O	29	2	0.0	< .1					
Tot Hard (mg/L)	14	08/06/14-04/24/19	O	29	29	14.0	26.0	22.6	23	2.2	3.9	*L
Mg (mg/L)	1	08/06/14-04/24/19	O	29	29	1.0	2.0	1.9	2	0.2	4.5	*L
K (mg/L)	1	08/06/14-04/24/19	O	29	26	< 1	2.0	1.0	1	0.2	0.2	L
Na (mg/L)	< 1	08/06/14-04/24/19	O	29	28	1.0	2.0	1.4	1	0.5	0.7	L
SO4 (mg/L)	1	08/06/14-04/24/19	O	29	29	1.0	2.0	1.3	1	0.4	0.7	L
N+N (mg/L)	0.05	08/06/14-04/24/19	O	29	29	0.05	0.48	0.26	0.29	0.09	2.37	L
Al (DIS) (mg/L)	1.15	08/06/14-04/24/19	O	29	29	0.11	8.17	1.46	1.41	1.82	0.17	
Sb (DIS) (mg/L)	< 0.0005	08/06/14-04/24/19	O	28	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	08/06/14-04/24/19	O	28	7	< 0.001	0.002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Ba (DIS) (mg/L)	0.161	08/06/14-04/24/19	O	28	28	0.161	0.345	0.276	0.278	0.032	3.585	*L
Be (DIS) (mg/L)	< 0.0008	08/06/14-04/24/19	O	28	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	08/06/14-04/24/19	O	28	2	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	08/06/14-04/24/19	O	28	0	< 0.01	< .01					
Co (DIS) (mg/L)	< 0.01	08/06/14-04/24/19	O	28	0	< 0.01	< .01					
Cu (DIS) (mg/L)	0.002	08/06/14-04/24/19	O	28	18	< 0.002	0.005	0.003	0.002	0.001	0.524	L
Fe (DIS) (mg/L)	0.67	08/06/14-04/24/19	O	28	28	0.08	3.69	0.73	0.78	0.97	0.07	
Pb (DIS) (mg/L)	< 0.0003	08/06/14-04/24/19	O	28	11	0.0001	0.0011					
Mn (DIS) (mg/L)	0.006	08/06/14-04/24/19	O	28	21	< 0.001	0.024	0.006	0.005	0.006	0.074	
Hg (DIS) (ug/L)	0.013	08/06/14-04/24/19	O	28	17	0.0	0.013	0.0	0	0.002	6.496	*H
Mo (DIS) (mg/L)	< 0.002	08/06/14-04/24/19	O	28	0	< 0.001	< .002					
Ni (DIS) (mg/L)	0.002	08/06/14-04/24/19	O	28	27	< 0.001	0.006	0.003	0.003	0.001	1.309	
Se (DIS) (mg/L)	< 0.0002	08/06/14-04/24/19	O	28	5	0.0001	< .0002					
Ag (DIS) (mg/L)	< 0.0002	08/06/14-04/24/19	O	28	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.0185	08/06/14-04/24/19	O	28	28	0.0185	0.0324	0.029	0.0299	0.0027	3.8746	*L
Tl (DIS) (mg/L)	< 0.0002	08/06/14-04/24/19	O	28	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	< 0.0002	08/06/14-04/24/19	O	28	0	< 0.0002	< .008					
Zn (DIS) (mg/L)	0.004	08/06/14-04/24/19	O	28	22	< 0.002	0.015	0.004	0.004	0.004	0.0	

SAMPLE NO BBC-1904-119 LAB NO: H19040763-006

STATION:DS-4

04/24/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	9.89	10/13/11-04/24/19	O	26	26	2.45	11.98	7.28	7.74	2.08	1.25	
pH Fld (s.u.)	7.36	10/13/11-04/24/19	O	25	25	5.86	8.83	7.22	7.36	0.72	0.2	
SC Fld (umhos/cm)	82	10/13/11-04/24/19	O	26	26	73.0	203.0	101.6	99.5	27.6	0.7	
Flow (Gallons Per Min)	-9999	10/13/11-04/24/19	O	11	9	-9999.0	7.5	1.0	2.2	3.5	2857.2	*L
Water Temp (Deg C)	5.4	10/13/11-04/24/19	O	26	26	0.2	20.2	7.3	8.5	4.3	0.4	
TDS (mg/L)	120	10/13/11-04/24/19	O	26	26	60.0	143.0	94.4	92	19.7	1.3	
TSS (mg/L)	< 10	08/06/14-04/24/19	O	25	13	< 10	868.0	32.8	24	186.9	0.1	L
Tot Alk (mg/L)	37	10/13/11-04/24/19	O	26	26	36.0	84.0	46.2	45.5	10.5	0.9	
Ca (mg/L)	12	10/13/11-04/24/19	O	26	26	11.0	22.0	14.1	14	2.4	0.9	
Cl (mg/L)	< 1	10/13/11-04/24/19	O	26	4	< 1	2.0					
F (mg/L)	< 0.1	10/13/11-04/24/19	O	26	10	0.1	< .1					
Tot Hard (mg/L)	41	10/13/11-04/24/19	O	26	26	38.0	71.0	47.2	47	7	0.9	
Mg (mg/L)	3	10/13/11-04/24/19	O	26	26	2.0	4.0	3.0	3	0.3	0.1	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

K (mg/L)	< 1	10/13/11-04/24/19	O	26	11	< 1	2.0					
Na (mg/L)	1	10/13/11-04/24/19	O	26	26	1.0	2.0	1.2	1	0.5	0.5	L
SO4 (mg/L)	2	10/13/11-04/24/19	O	26	25	< 1	4.0	2.1	2	0.7	0.1	
N+N (mg/L)	0.27	10/13/11-04/24/19	O	26	21	< 0.01	0.47	0.11	0.27	0.16	0.99	
Al (DIS) (mg/L)	2.65	10/13/11-04/24/19	O	26	24	< 0.01	8.22	0.32	0.4	1.86	1.25	
Sb (DIS) (mg/L)	< 0.0005	10/13/11-04/24/19	O	25	1	0.0001	< .003					
As (DIS) (mg/L)	0.002	10/13/11-04/24/19	O	25	18	< 0.001	0.004	0.002	0.002	0.001	0.282	
Ba (DIS) (mg/L)	0.32	10/13/11-04/24/19	O	25	25	0.24	0.43	0.32	0.32	0.04	0.12	
Be (DIS) (mg/L)	< 0.0008	10/13/11-04/24/19	O	25	0	< 0.0008	< .001					
Cd (DIS) (mg/L)	< 0	10/13/11-04/24/19	O	25	0	< 0	< .00008					
Cr (DIS) (mg/L)	< 0.01	10/13/11-04/24/19	O	25	0	< 0	< .01					
Co (DIS) (mg/L)	< 0.01	10/13/11-04/24/19	O	25	2	0.0	< .01					
Cu (DIS) (mg/L)	0.003	10/13/11-04/24/19	O	25	7	< 0.001	0.006					
Fe (DIS) (mg/L)	1.64	10/13/11-04/24/19	O	25	24	< 0.02	3.82	0.5	0.42	0.95	1.2	
Pb (DIS) (mg/L)	0.0007	10/13/11-04/24/19	O	25	8	< 0.0003	0.0013					
Mn (DIS) (mg/L)	0.011	10/13/11-04/24/19	O	25	24	< 0.005	0.86	0.029	0.017	0.176	0.1	
Hg (DIS) (ug/L)	0.01	10/13/11-04/24/19	O	24	8	< 0	0.01					
Mo (DIS) (mg/L)	< 0.002	10/13/11-04/24/19	O	25	0	< 0.001	< .005					
Ni (DIS) (mg/L)	0.003	10/13/11-04/24/19	O	25	24	0.001	< .01	0.002	0.002	0.002	0.57	
Se (DIS) (mg/L)	< 0.0002	10/13/11-04/24/19	O	25	0	< 0.0002	< .001					
Ag (DIS) (mg/L)	< 0.0002	10/13/11-04/24/19	O	25	0	< 0.0002	< .0005					
Sr (DIS) (mg/L)	0.041	10/13/11-04/24/19	O	25	24	0.039	< .1	0.048	0.045	0.013	0.555	
Tl (DIS) (mg/L)	< 0.0002	10/13/11-04/24/19	O	25	0	< 0.0002	< 0 .0002					
U (DIS) (mg/L)	< 0.0002	10/13/11-04/24/19	O	25	0	< 0.0002	< .008					
Zn (DIS) (mg/L)	0.006	10/13/11-04/24/19	O	25	17	0.001	0.014	0.004	0.004	0.004	0.446	

SAMPLE NO BBC-1904-106 LAB NO: H19040763-001 STATION: SP-10

PARAMETER	04/23/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	10.01	05/23/18-04/23/19	O	10	10	6.76	10.01	8.1	8.03	1.14	1.67	H
pH Fld (s.u.)	8.03	05/23/18-04/23/19	O	10	10	6.92	8.09	7.59	7.57	0.31	1.42	
SC Fld (umhos/cm)	326	05/23/18-04/23/19	O	10	10	305.0	434.0	389.2	409.5	37.9	1.7	
Flow (Gallons Per Min)	-9999	05/23/18-04/23/19	O	9	9	-9999.0	59.7	0.7	1.9	14.8	675.7	*L
Water Temp (Deg C)	5.6	05/23/18-04/23/19	O	10	10	3.8	8.1	6.3	6.6	2.5	0.3	
TDS (mg/L)	162	05/23/18-04/23/19	O	10	10	162.0	234.0	216.7	227	21.5	2.5	L

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

TSS (mg/L)	399	05/23/18-04/23/19	O	10	4	< 10	399.0					
Tot Alk (mg/L)	150	05/23/18-04/23/19	O	10	10	150.0	220.0	202.7	215	22	2.4	L
Ca (mg/L)	38	05/23/18-04/23/19	O	10	10	38.0	61.0	54.2	55.5	6.5	2.5	L
Cl (mg/L)	< 1	05/23/18-04/23/19	O	10	0	< 1	< 1					
F (mg/L)	0.1	05/23/18-04/23/19	O	10	10	0.1	0.1	0.1	0.1	0	0.0	H
Tot Hard (mg/L)	147	05/23/18-04/23/19	O	10	10	147.0	245.0	214.9	220.5	27.3	2.5	L
Mg (mg/L)	13	05/23/18-04/23/19	O	10	10	13.0	22.0	19.3	20	2.6	2.4	L
K (mg/L)	< 1	05/23/18-04/23/19	O	10	5	< 1	< 1					
Na (mg/L)	1	05/23/18-04/23/19	O	10	10	1.0	2.0	1.9	2	0.3	2.9	L
SO4 (mg/L)	6	05/23/18-04/23/19	O	10	10	6.0	17.0	12.5	14	3.8	1.7	L
N+N (mg/L)	0.15	05/23/18-04/23/19	O	10	10	0.15	0.28	0.22	0.24	0.04	1.64	L
Al (DIS) (mg/L)	0.024	05/23/18-04/23/19	O	10	1	< 0.009	0.024					
Sb (DIS) (mg/L)	< 0.0005	05/23/18-04/23/19	O	10	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	05/23/18-04/23/19	O	10	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.03	05/23/18-04/23/19	O	10	10	0.03	0.06	0.05	0.05	0.01	1.79	L
Be (DIS) (mg/L)	< 0.0008	05/23/18-04/23/19	O	10	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	05/23/18-04/23/19	O	10	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	05/23/18-04/23/19	O	10	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	05/23/18-04/23/19	O	10	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	05/23/18-04/23/19	O	10	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	05/23/18-04/23/19	O	10	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	05/23/18-04/23/19	O	10	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	05/23/18-04/23/19	O	10	3	< 0.005	0.024					
Hg (DIS) (ug/L)	< 0.005	05/23/18-04/23/19	O	10	0	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	05/23/18-04/23/19	O	10	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	05/23/18-04/23/19	O	10	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	05/23/18-04/23/19	O	10	7	< 0.0002	0.0003	0.0003	0.0003	0.0001	0.5509	L
Ag (DIS) (mg/L)	< 0.0002	05/23/18-04/23/19	O	10	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.0748	05/23/18-04/23/19	O	10	10	0.0748	0.122	0.1068	0.111	0.0131	2.44	L
Tl (DIS) (mg/L)	< 0.0002	05/23/18-04/23/19	O	10	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0004	05/23/18-04/23/19	O	10	4	0.0004	< .008					
Zn (DIS) (mg/L)	< 0.002	05/23/18-04/23/19	O	10	0	< 0.002	< 0 .002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: May 30, 2019

SAMPLE NO BBC-1904-120 LAB NO: H19040763-007 | STATION:SP-3

04/24/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	9.92	07/20/11-04/24/19	O	28	28	5.41	19.38	9.54	9.73	2.22	0.17	
pH Fld (s.u.)	7.21	07/20/11-04/24/19	O	27	27	6.2	8.66	7.35	7.42	0.57	0.25	
SC Fld (umhos/cm)	91	07/20/11-04/24/19	O	28	28	91.0	223.0	161.6	177.5	39.8	1.8	L
Flow (Gallons Per Min)	-9999	07/20/11-04/24/19	O	26	25	-9999.0	5.4	0.4	0.6	1.6	6249.6	*L
Water Temp (Deg C)	3.5	07/20/11-04/24/19	O	28	28	1.7	15.8	6.6	7.6	3.8	0.8	
TDS (mg/L)	157	07/20/11-04/24/19	O	28	28	124.0	214.0	142.5	137	21.4	0.7	
TSS (mg/L)	< 10	08/28/13-04/24/19	O	26	15	< 10	191.0	24.6	14	119	0.1	L
Tot Alk (mg/L)	37	07/20/11-04/24/19	O	28	28	37.0	100.0	74.6	83.5	21.1	1.8	L
Ca (mg/L)	13	07/20/11-04/24/19	O	28	28	13.0	32.0	23.0	25.5	5.8	1.7	L
Cl (mg/L)	1	07/20/11-04/24/19	O	28	4	< 1	2.0					
F (mg/L)	0.1	07/20/11-04/24/19	O	28	28	0.1	0.1	0.1	0.1	0	0.0	H
Tot Hard (mg/L)	46	07/20/11-04/24/19	O	28	28	46.0	109.0	78.9	86	19.1	1.7	L
Mg (mg/L)	3	07/20/11-04/24/19	O	28	28	3.0	7.0	5.2	6	1.2	1.8	L
K (mg/L)	2	07/20/11-04/24/19	O	28	28	1.0	3.0	1.4	1	0.7	0.8	
Na (mg/L)	2	07/20/11-04/24/19	O	28	28	2.0	3.0	2.4	2.5	0.5	0.9	L
SO4 (mg/L)	4	07/20/11-04/24/19	O	28	28	3.0	7.0	5.0	5	1.2	0.8	
N+N (mg/L)	0.14	07/20/11-04/24/19	O	28	28	0.14	0.43	0.29	0.3	0.07	2.07	L
Al (DIS) (mg/L)	2.18	07/20/11-04/24/19	O	28	28	0.03	10.8	0.37	0.28	2.36	0.77	
Sb (DIS) (mg/L)	< 0.0005	07/20/11-04/24/19	O	27	0	< 0.0005	< .003					
As (DIS) (mg/L)	0.003	07/20/11-04/24/19	O	27	25	0.001	0.005	0.002	0.002	0.001	1.203	
Ba (DIS) (mg/L)	0.201	07/20/11-04/24/19	O	27	27	0.201	0.53	0.284	0.292	0.059	1.407	L
Be (DIS) (mg/L)	< 0.0008	07/20/11-04/24/19	O	27	1	< 0.0008	< .001					
Cd (DIS) (mg/L)	< 0	07/20/11-04/24/19	O	27	1	< 0	0.0002					
Cr (DIS) (mg/L)	< 0.01	07/20/11-04/24/19	O	27	2	0.0	0.02					
Co (DIS) (mg/L)	< 0.01	07/20/11-04/24/19	O	27	0	< 0.01	< .01					
Cu (DIS) (mg/L)	0.006	07/20/11-04/24/19	O	27	12	0.001	0.026					
Fe (DIS) (mg/L)	1.42	07/20/11-04/24/19	O	27	27	0.02	6.89	0.19	0.09	1.44	0.86	
Pb (DIS) (mg/L)	0.0005	07/20/11-04/24/19	O	27	8	< 0.0003	0.0036					
Mn (DIS) (mg/L)	0.009	07/20/11-04/24/19	O	27	9	0.001	0.068					
Hg (DIS) (ug/L)	0.026	07/20/11-04/24/19	O	26	10	< 0	0.026					
Mo (DIS) (mg/L)	< 0.002	07/20/11-04/24/19	O	27	0	< 0.001	< .005					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Ni (DIS) (mg/L)	0.004	07/20/11-04/24/19	O	27	12	< 0.001	0.015					
Se (DIS) (mg/L)	< 0.0002	07/20/11-04/24/19	O	27	6	< 0.0002	< .001					
Ag (DIS) (mg/L)	< 0.0002	07/20/11-04/24/19	O	27	0	< 0.0002	< .0005					
Sr (DIS) (mg/L)	0.0398	07/20/11-04/24/19	O	27	25	0.0398	< .1	0.0712	0.0779	0.0169	1.8607	L
Tl (DIS) (mg/L)	< 0.0002	07/20/11-04/24/19	O	27	1	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	< 0.0002	07/20/11-04/24/19	O	27	1	< 0.0002	< .008					
Zn (DIS) (mg/L)	0.006	07/20/11-04/24/19	O	27	11	< 0.002	0.029					

SAMPLE NO BBC-1904-123 LAB NO: H19040763-009

STATION:SP-4

04/24/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	9.8	07/21/11-04/24/19	O	51	51	6.7	14.0	9.8	9.7	1.4	0.0	
pH Fld (s.u.)	7.75	07/21/11-04/24/19	O	50	50	6.95	8.63	7.7	7.72	0.29	0.17	
SC Fld (umhos/cm)	442	07/21/11-04/24/19	O	51	51	162.0	481.0	420.9	434	46.5	0.5	
Flow (Gallons Per Min)	42.2	07/21/11-04/24/19	O	43	43	0.0	50.3	3.0	5.4	10.5	3.7	*
Water Temp (Deg C)	6.7	07/21/11-04/24/19	O	50	50	0.1	12.2	5.6	6.5	2.1	0.5	
TDS (mg/L)	248	07/21/11-04/24/19	O	51	51	202.0	272.0	247.2	250	13.8	0.1	
TSS (mg/L)	< 10	08/28/13-04/24/19	O	48	29	5.0	890.0	21.0	11.5	124.6	0.1	
Tot Alk (mg/L)	200	07/21/11-04/24/19	O	51	51	190.0	210.0	201.3	200	4.5	0.3	
Ca (mg/L)	50	07/21/11-04/24/19	O	51	51	42.0	56.0	50.8	51	2.5	0.3	
Cl (mg/L)	< 1	07/21/11-04/24/19	O	51	14	1.0	1.0					
F (mg/L)	0.2	07/21/11-04/24/19	O	51	51	0.2	0.3	0.2	0.2	0	0.0	L
Tot Hard (mg/L)	231	07/21/11-04/24/19	O	51	51	208.0	255.0	236.4	238	10.9	0.5	
Mg (mg/L)	26	07/21/11-04/24/19	O	51	51	24.0	29.0	26.6	27	1.2	0.5	
K (mg/L)	2	07/21/11-04/24/19	O	51	51	1.0	2.0	1.9	2	0.3	0.4	H
Na (mg/L)	2	07/21/11-04/24/19	O	51	51	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	39	07/21/11-04/24/19	O	51	51	10.0	45.0	35.5	38	6.5	0.5	
N+N (mg/L)	0.25	07/21/11-04/24/19	O	51	51	0.18	0.35	0.25	0.25	0.03	0.01	
Al (DIS) (mg/L)	< 0.009	07/21/11-04/24/19	O	51	4	< 0.009	0.031					
Sb (DIS) (mg/L)	< 0.0005	07/21/11-04/24/19	O	50	0	< 0.0005	< .003					
As (DIS) (mg/L)	< 0.001	07/21/11-04/24/19	O	50	0	< 0.001	< .003					
Ba (DIS) (mg/L)	0.112	07/21/11-04/24/19	O	50	50	0.101	0.121	0.112	0.112	0.005	0.058	
Be (DIS) (mg/L)	< 0.0008	07/21/11-04/24/19	O	50	0	< 0.0008	< .001					
Cd (DIS) (mg/L)	< 0	07/21/11-04/24/19	O	50	0	< 0	< .00008					
Cr (DIS) (mg/L)	< 0.01	07/21/11-04/24/19	O	50	0	< 0	< .01					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Co (DIS) (mg/L)	< 0.01	07/21/11-04/24/19	O	50	0	< 0.01	< .01					
Cu (DIS) (mg/L)	< 0.002	07/21/11-04/24/19	O	50	1	< 0.001	0.017					
Fe (DIS) (mg/L)	< 0.02	07/21/11-04/24/19	O	50	11	< 0.02	0.14					
Pb (DIS) (mg/L)	< 0.0003	07/21/11-04/24/19	O	50	0	< 0.0003	< .0005					
Mn (DIS) (mg/L)	< 0.005	07/21/11-04/24/19	O	50	23	0.004	0.038					
Hg (DIS) (ug/L)	< 0.005	07/21/11-04/24/19	O	49	1	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	07/21/11-04/24/19	O	50	0	< 0.001	< .005					
Ni (DIS) (mg/L)	< 0.001	07/21/11-04/24/19	O	50	0	< 0.001	< .01					
Se (DIS) (mg/L)	0.0003	07/21/11-04/24/19	O	50	46	< 0.0002	< .001	0.0004	0.0004	0.0001	1.1357	
Ag (DIS) (mg/L)	< 0.0002	07/21/11-04/24/19	O	50	0	< 0.0002	< .0005					
Sr (DIS) (mg/L)	0.0718	07/21/11-04/24/19	O	50	47	0.0672	< .1	0.0739	0.0728	0.0068	0.3152	
Tl (DIS) (mg/L)	0.0003	07/21/11-04/24/19	O	50	50	0.0002	0.0004	0.0003	0.0003	0.0001	0.032	
U (DIS) (mg/L)	0.0005	07/21/11-04/24/19	O	50	10	0.0004	< .008					
Zn (DIS) (mg/L)	< 0.002	07/21/11-04/24/19	O	50	14	< 0.002	< .01					

SAMPLE NO BBC-1904-122 LAB NO: H19040763-008

STATION:SP-6

04/24/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	9.62	10/12/11-04/24/19	O	44	44	6.7	282.0	10.54	9.65	39.73	0.02	
pH Fld (s.u.)	7.6	10/12/11-04/24/19	O	43	43	5.8	8.7	7.3	7.5	0.7	0.4	
SC Fld (umhos/cm)	253	10/12/11-04/24/19	O	44	44	241.0	327.0	268.4	268	14.6	1.1	
Flow (Gallons Per Min)	4.12	10/12/11-04/24/19	O	42	34	0.27	4.12	1.03	1	0.91	3.39	*H
Water Temp (Deg C)	5.5	10/12/11-04/24/19	O	43	43	4.4	10.3	7.1	7.5	1.5	1.0	
TDS (mg/L)	153	10/12/11-04/24/19	O	44	44	145.0	188.0	161.0	160.5	7.9	1.0	
TSS (mg/L)	< 10	08/28/13-04/24/19	O	42	13	< 4	216.0					
Tot Alk (mg/L)	130	10/12/11-04/24/19	O	44	44	120.0	160.0	134.6	130	6.9	0.7	
Ca (mg/L)	33	10/12/11-04/24/19	O	44	44	32.0	38.0	34.9	35	1.5	1.3	
Cl (mg/L)	< 1	10/12/11-04/24/19	O	44	10	< 1	2.0					
F (mg/L)	0.1	10/12/11-04/24/19	O	44	44	0.1	0.2	0.2	0.2	0	0.0	L
Tot Hard (mg/L)	133	10/12/11-04/24/19	O	44	44	129.0	160.0	140.6	141	6.5	1.2	
Mg (mg/L)	12	10/12/11-04/24/19	O	44	44	12.0	16.0	12.9	13	0.9	1.0	L
K (mg/L)	1	10/12/11-04/24/19	O	44	9	< 1	< 1					
Na (mg/L)	2	10/12/11-04/24/19	O	44	44	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	7	10/12/11-04/24/19	O	44	44	7.0	12.0	8.9	9.1	1.6	1.2	L
N+N (mg/L)	0.65	10/12/11-04/24/19	O	44	44	0.31	0.68	0.39	0.37	0.08	3.26	*

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Al (DIS) (mg/L)	0.052	10/12/11-04/24/19	O	44	21	0.004	0.16				
Sb (DIS) (mg/L)	< 0.0005	10/12/11-04/24/19	O	43	0	< 0.0005	< .003				
As (DIS) (mg/L)	< 0.001	10/12/11-04/24/19	O	43	0	< 0.001	< .003				
Ba (DIS) (mg/L)	0.186	10/12/11-04/24/19	O	43	43	0.168	0.217	0.191	0.19	0.009	0.516
Be (DIS) (mg/L)	< 0.0008	10/12/11-04/24/19	O	43	0	< 0.0008	< .001				
Cd (DIS) (mg/L)	< 0	10/12/11-04/24/19	O	43	0	< 0	< .00008				
Cr (DIS) (mg/L)	< 0.01	10/12/11-04/24/19	O	43	0	< 0	< .01				
Co (DIS) (mg/L)	< 0.01	10/12/11-04/24/19	O	43	0	< 0.01	< .01				
Cu (DIS) (mg/L)	< 0.002	10/12/11-04/24/19	O	43	0	< 0.001	< .002				
Fe (DIS) (mg/L)	0.03	10/12/11-04/24/19	O	43	16	< 0.02	0.19				
Pb (DIS) (mg/L)	< 0.0003	10/12/11-04/24/19	O	43	1	< 0.0003	< .0005				
Mn (DIS) (mg/L)	< 0.005	10/12/11-04/24/19	O	43	7	< 0.001	0.102				
Hg (DIS) (ug/L)	< 0.005	10/12/11-04/24/19	O	42	1	< 0	< .005				
Mo (DIS) (mg/L)	< 0.002	10/12/11-04/24/19	O	43	0	< 0.001	< .005				
Ni (DIS) (mg/L)	< 0.001	10/12/11-04/24/19	O	43	1	< 0.001	< .01				
Se (DIS) (mg/L)	< 0.0002	10/12/11-04/24/19	O	43	12	< 0.0002	< .001				
Ag (DIS) (mg/L)	< 0.0002	10/12/11-04/24/19	O	43	0	< 0.0002	< .0005				
Sr (DIS) (mg/L)	0.0673	10/12/11-04/24/19	O	43	41	0.0654	< .1	0.0731	0.0728	0.0063	0.9283
Tl (DIS) (mg/L)	0.0005	10/12/11-04/24/19	O	43	43	0.0004	0.0007	0.0005	0.0005	0.0001	0.0107
U (DIS) (mg/L)	0.0004	10/12/11-04/24/19	O	43	13	< 0.0003	< .008				
Zn (DIS) (mg/L)	< 0.002	10/12/11-04/24/19	O	43	7	0.001	< .01				

SAMPLE NO BBC-1904-124 LAB NO: H19040763-010

STATION:SP-7

04/24/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	2.7	03/26/15-04/24/19	O	48	48	2.3	11.0	3.7	3.5	1.6	0.6	
pH Fld (s.u.)	7.65	03/26/15-04/24/19	O	47	47	6.17	8.18	7.38	7.38	0.33	0.8	
SC Fld (umhos/cm)	330	03/26/15-04/24/19	O	48	48	196.0	354.0	320.9	330	28.5	0.3	
Flow (Gallons Per Min)	59.7	03/26/15-04/24/19	O	41	41	6.7	136.0	18.4	15.3	25.6	1.6	
Water Temp (Deg C)	7.4	03/26/15-04/24/19	O	47	47	5.1	7.4	6.5	6.6	0.6	1.5	H
TDS (mg/L)	188	03/26/15-04/24/19	O	48	48	173.0	200.0	187.1	187	6.7	0.1	
TDS (mg/L)	189	03/26/15-04/24/19	DUP	48	48	173.0	200.0	187.1	187	6.7	0.3	
TSS (mg/L)	< 10	03/26/15-04/24/19	DUP	48	7	< 4	146.0					
TSS (mg/L)	< 10	03/26/15-04/24/19	O	48	7	< 4	146.0					
Tot Alk (mg/L)	160	03/26/15-04/24/19	O	48	48	160.0	170.0	166.2	170	4.7	1.3	L

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Tot Alk (mg/L)	170	03/26/15-04/24/19	DUP	48	48	160.0	170.0	166.2	170	4.7	0.8	H
Ca (mg/L)	42	03/26/15-04/24/19	DUP	48	48	40.0	46.0	42.9	43	1.4	0.6	
Ca (mg/L)	42	03/26/15-04/24/19	O	48	48	40.0	46.0	42.9	43	1.4	0.6	
Cl (mg/L)	2	03/26/15-04/24/19	DUP	48	48	1.0	2.0	1.8	2	0.3	0.8	H
Cl (mg/L)	2	03/26/15-04/24/19	O	48	48	1.0	2.0	1.8	2	0.3	0.8	H
F (mg/L)	0.3	03/26/15-04/24/19	O	48	48	0.3	0.4	0.3	0.3	0	0.0	L
F (mg/L)	0.3	03/26/15-04/24/19	DUP	48	48	0.3	0.4	0.3	0.3	0	0.0	L
Tot Hard (mg/L)	163	03/26/15-04/24/19	DUP	48	48	153.0	178.0	168.0	168.5	5.5	0.9	
Tot Hard (mg/L)	163	03/26/15-04/24/19	O	48	48	153.0	178.0	168.0	168.5	5.5	0.9	
Mg (mg/L)	14	03/26/15-04/24/19	DUP	48	48	13.0	16.0	14.8	15	0.6	1.3	
Mg (mg/L)	14	03/26/15-04/24/19	O	48	48	13.0	16.0	14.8	15	0.6	1.3	
K (mg/L)	3	03/26/15-04/24/19	DUP	48	48	2.0	3.0	2.7	3	0.4	0.7	H
K (mg/L)	3	03/26/15-04/24/19	O	48	48	2.0	3.0	2.7	3	0.4	0.7	H
Na (mg/L)	5	03/26/15-04/24/19	DUP	48	48	4.0	5.0	4.7	5	0.5	0.7	H
Na (mg/L)	4	03/26/15-04/24/19	O	48	48	4.0	5.0	4.7	5	0.5	1.3	L
SO4 (mg/L)	11	03/26/15-04/24/19	O	48	48	7.0	12.0	9.6	10	1.1	1.2	
SO4 (mg/L)	11	03/26/15-04/24/19	DUP	48	48	7.0	12.0	9.6	10	1.1	1.2	
N+N (mg/L)	0.32	03/26/15-04/24/19	DUP	48	48	0.27	0.41	0.31	0.31	0.02	0.53	
N+N (mg/L)	0.32	03/26/15-04/24/19	O	48	48	0.27	0.41	0.31	0.31	0.02	0.53	
Al (DIS) (mg/L)	< 0.009	03/26/15-04/24/19	DUP	48	3	< 0.009	0.311					
Al (DIS) (mg/L)	0.01	03/26/15-04/24/19	O	48	3	< 0.01	0.31					
Sb (DIS) (mg/L)	< 0.0005	03/26/15-04/24/19	O	47	0	< 0.0005	: 0 .0005					
Sb (DIS) (mg/L)	< 0.0005	03/26/15-04/24/19	DUP	47	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	0.004	03/26/15-04/24/19	DUP	47	47	0.003	0.004	0.004	0.004	0	0.0	H
As (DIS) (mg/L)	0.004	03/26/15-04/24/19	O	47	47	0.003	0.004	0.004	0.004	0	0.0	H
Ba (DIS) (mg/L)	0.112	03/26/15-04/24/19	O	47	47	0.1	0.122	0.112	0.112	0.005	0.067	
Ba (DIS) (mg/L)	0.111	03/26/15-04/24/19	DUP	47	47	0.1	0.122	0.112	0.112	0.005	0.133	
Be (DIS) (mg/L)	< 0.0008	03/26/15-04/24/19	O	47	0	< 0.0008	: 0 .0008					
Be (DIS) (mg/L)	< 0.0008	03/26/15-04/24/19	DUP	47	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	03/26/15-04/24/19	DUP	47	0	< 0	: .00003					
Cd (DIS) (mg/L)	< 0	03/26/15-04/24/19	O	47	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	03/26/15-04/24/19	O	47	0	< 0.01	< 0 .01					
Cr (DIS) (mg/L)	< 0.01	03/26/15-04/24/19	DUP	47	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	03/26/15-04/24/19	DUP	47	0	< 0.01	< 0 .01					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Co (DIS) (mg/L)	< 0.01	03/26/15-04/24/19	O	47	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	03/26/15-04/24/19	DUP	47	2	< 0.002	0.015					
Cu (DIS) (mg/L)	< 0.002	03/26/15-04/24/19	O	47	2	< 0.002	0.015					
Fe (DIS) (mg/L)	< 0.02	03/26/15-04/24/19	DUP	47	4	< 0.02	0.36					
Fe (DIS) (mg/L)	< 0.02	03/26/15-04/24/19	O	47	4	< 0.02	0.36					
Pb (DIS) (mg/L)	< 0.0003	03/26/15-04/24/19	DUP	47	1	< 0.0003	0.0006					
Pb (DIS) (mg/L)	< 0.0003	03/26/15-04/24/19	O	47	1	< 0.0003	0.0006					
Mn (DIS) (mg/L)	< 0.005	03/26/15-04/24/19	O	47	1	< 0.005	< 0 .005					
Mn (DIS) (mg/L)	< 0.005	03/26/15-04/24/19	DUP	47	1	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	03/26/15-04/24/19	O	47	1	< 0	< .005					
Hg (DIS) (ug/L)	< 0.005	03/26/15-04/24/19	DUP	47	1	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	03/26/15-04/24/19	O	47	0	< 0.002	< 0 .002					
Mo (DIS) (mg/L)	< 0.002	03/26/15-04/24/19	DUP	47	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	03/26/15-04/24/19	O	47	0	< 0.001	< 0 .001					
Ni (DIS) (mg/L)	< 0.001	03/26/15-04/24/19	DUP	47	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	0.0003	03/26/15-04/24/19	O	47	43	0.0002	< .0004	0.0003	0.0003	0.0001	0.1378	
Se (DIS) (mg/L)	0.0002	03/26/15-04/24/19	DUP	47	43	0.0002	< .0004	0.0003	0.0003	0.0001	0.8622	L
Ag (DIS) (mg/L)	< 0.0002	03/26/15-04/24/19	O	47	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	03/26/15-04/24/19	DUP	47	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.164	03/26/15-04/24/19	DUP	47	47	0.15	0.181	0.166	0.166	0.006	0.315	
Sr (DIS) (mg/L)	0.165	03/26/15-04/24/19	O	47	47	0.15	0.181	0.166	0.166	0.006	0.148	
Tl (DIS) (mg/L)	0.001	03/26/15-04/24/19	DUP	47	47	0.001	0.001	0.001	0.001	0	0.0	
Tl (DIS) (mg/L)	0.001	03/26/15-04/24/19	O	47	47	0.001	0.001	0.001	0.001	0	0.0	
U (DIS) (mg/L)	0.0009	03/26/15-04/24/19	O	47	6	0.0009	< .008					
U (DIS) (mg/L)	0.0008	03/26/15-04/24/19	DUP	47	6	0.0009	< .008					
Zn (DIS) (mg/L)	< 0.002	03/26/15-04/24/19	O	47	2	< 0.002	0.003					
Zn (DIS) (mg/L)	< 0.002	03/26/15-04/24/19	DUP	47	2	< 0.002	0.003					

SAMPLE NO BBC-1904-113 LAB NO: H19040763-016 STATION:SW-1

04/24/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	11.11	05/24/11-04/24/19	O	75	75	3.91	15.0	10.96	10.9	1.93	0.08
pH Fld (s.u.)	7.76	05/24/11-04/24/19	O	74	74	5.3	8.71	7.82	8.03	0.65	0.09
SC Fld (umhos/cm)	179	05/24/11-04/24/19	O	75	75	176.0	363.0	284.4	311	53.5	2.0
Flow (Cubic Ft Sec)	174.3	05/24/11-04/24/19	O	54	54	0.0	613.0	14.9	23.8	90.8	1.8

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Gauge (Feet)	1.72	05/24/11-04/24/19	O	46	46	0.49	13.3	1.14	0.98	1.74	0.34	
Water Temp (Deg C)	1.7	05/24/11-04/24/19	O	75	75	-1.0	14.5	0.5	3.3	4.8	0.3	
TDS (mg/L)	136	05/24/11-04/24/19	DUP	72	72	107.0	227.0	169.2	180	27.2	1.2	
TDS (mg/L)	135	05/24/11-04/24/19	O	72	72	107.0	227.0	169.2	180	27.2	1.3	
TSS (mg/L)	< 4	05/30/12-04/24/19	O	68	25	< 4	43.0					
TSS (mg/L)	54	05/30/12-04/24/19	DUP	68	25	< 4	43.0					
Tot Alk (mg/L)	87	05/24/11-04/24/19	O	72	72	87.0	200.0	152.4	170	31.5	2.1	L
Tot Alk (mg/L)	86	05/24/11-04/24/19	DUP	72	72	87.0	200.0	152.4	170	31.5	2.1	L
Ca (mg/L)	24	05/24/11-04/24/19	O	72	72	23.0	55.0	42.2	46	8.9	2.0	
Ca (mg/L)	25	05/24/11-04/24/19	DUP	72	72	23.0	55.0	42.2	46	8.9	1.9	
Cl (mg/L)	2	05/24/11-04/24/19	O	72	71	1.0	5.0	1.4	1	0.7	0.9	
Cl (mg/L)	2	05/24/11-04/24/19	DUP	72	71	1.0	5.0	1.4	1	0.7	0.9	
F (mg/L)	< 0.1	05/24/11-04/24/19	O	72	22	< 0.1	0.2					
F (mg/L)	< 0.1	05/24/11-04/24/19	DUP	72	22	< 0.1	0.2					
Tot Hard (mg/L)	88	05/24/11-04/24/19	O	72	71	< 7	199.0	144.6	164	35.8	1.6	
Tot Hard (mg/L)	90	05/24/11-04/24/19	DUP	72	71	< 7	199.0	144.6	164	35.8	1.5	
Mg (mg/L)	7	05/24/11-04/24/19	O	72	72	6.0	15.0	11.1	12	2.5	1.7	
Mg (mg/L)	7	05/24/11-04/24/19	DUP	72	72	6.0	15.0	11.1	12	2.5	1.7	
K (mg/L)	2	05/24/11-04/24/19	O	72	69	1.0	3.0	1.1	1	0.5	1.8	
K (mg/L)	2	05/24/11-04/24/19	DUP	72	69	1.0	3.0	1.1	1	0.5	1.8	
Na (mg/L)	2	05/24/11-04/24/19	O	72	72	1.0	3.0	2.2	2	0.5	0.3	
Na (mg/L)	2	05/24/11-04/24/19	DUP	72	72	1.0	3.0	2.2	2	0.5	0.3	
SO4 (mg/L)	4	05/24/11-04/24/19	O	72	72	2.0	18.0	5.2	5	2.1	0.6	
SO4 (mg/L)	4	05/24/11-04/24/19	DUP	72	72	2.0	18.0	5.2	5	2.1	0.6	
N+N (mg/L)	0.05	05/24/11-04/24/19	O	72	35	< 0.01	0.15					
N+N (mg/L)	0.05	05/24/11-04/24/19	DUP	72	35	< 0.01	0.15					
Tot Phos (mg/L)	0.095	05/16/14-04/24/19	O	58	54	< 0.003	0.095	0.013	0.012	0.019	4.321	*H
Tot Phos (mg/L)	0.089	05/16/14-04/24/19	DUP	58	54	< 0.003	0.095	0.013	0.012	0.019	4.006	*
Tot Pers (mg/L)	0.48	04/29/15-04/24/19	O	46	42	< 0	1.12	0.13	0.15	0.17	2.05	
Tot Pers (mg/L)	0.52	04/29/15-04/24/19	DUP	46	42	< 0	1.12	0.13	0.15	0.17	2.28	
Al (DIS) (mg/L)	0.409	05/24/11-04/24/19	O	72	27	< 0.009	0.409					
Al (DIS) (mg/L)	0.332	05/24/11-04/24/19	DUP	72	27	< 0.009	0.409					
Sb (TRC) (mg/L)	< 0.0005	05/24/11-04/24/19	O	72	0	< 0.0005	< .005					
Sb (TRC) (mg/L)	< 0.0005	05/24/11-04/24/19	DUP	72	0	< 0.0005	< .005					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

As (TRC) (mg/L)	0.001	05/24/11-04/24/19	DUP	72	13	< 0.001	< .003					
As (TRC) (mg/L)	0.001	05/24/11-04/24/19	O	72	13	< 0.001	< .003					
Ba (TRC) (mg/L)	0.116	05/24/11-04/24/19	O	72	72	0.083	0.127	0.104	0.104	0.009	1.284	
Ba (TRC) (mg/L)	0.111	05/24/11-04/24/19	DUP	72	72	0.083	0.127	0.104	0.104	0.009	0.728	
Be (TRC) (mg/L)	< 0.0008	05/24/11-04/24/19	O	72	0	< 0.0008	< .001					
Be (TRC) (mg/L)	< 0.0008	05/24/11-04/24/19	DUP	72	0	< 0.0008	< .001					
Cd (TRC) (mg/L)	< 0	05/24/11-04/24/19	O	72	5	< 0	0.0002					
Cd (TRC) (mg/L)	< 0	05/24/11-04/24/19	DUP	72	5	< 0	0.0002					
Cr (TRC) (mg/L)	< 0.01	05/24/11-04/24/19	O	72	2	< 0	< .01					
Cr (TRC) (mg/L)	< 0.01	05/24/11-04/24/19	DUP	72	2	< 0	< .01					
Co (TRC) (mg/L)	< 0.01	05/24/11-04/24/19	O	72	0	< 0.01	< .01					
Co (TRC) (mg/L)	< 0.01	05/24/11-04/24/19	DUP	72	0	< 0.01	< .01					
Cu (TRC) (mg/L)	0.003	05/24/11-04/24/19	O	72	6	0.001	0.003					
Cu (TRC) (mg/L)	0.003	05/24/11-04/24/19	DUP	72	6	0.001	0.003					
Fe (TRC) (mg/L)	2.11	05/24/11-04/24/19	O	72	72	0.11	2.11	0.23	0.17	0.41	4.57	*H
Fe (TRC) (mg/L)	1.45	05/24/11-04/24/19	DUP	72	72	0.11	2.11	0.23	0.17	0.41	2.96	
Pb (TRC) (mg/L)	0.0011	05/24/11-04/24/19	DUP	72	14	< 0.0003	0.0015					
Pb (TRC) (mg/L)	0.0013	05/24/11-04/24/19	O	72	14	< 0.0003	0.0015					
Mn (TRC) (mg/L)	0.046	05/24/11-04/24/19	DUP	72	72	0.009	0.053	0.017	0.017	0.011	2.595	
Mn (TRC) (mg/L)	0.05	05/24/11-04/24/19	O	72	72	0.01	0.05	0.02	0.02	0.01	3.25	*
Hg (TRC) (ug/L)	0.023	05/24/11-04/24/19	O	72	12	< 0	0.023					
Hg (TRC) (ug/L)	0.025	05/24/11-04/24/19	DUP	72	12	< 0	0.023					
Mo (TRC) (mg/L)	< 0.002	05/24/11-04/24/19	DUP	72	0	< 0.001	< .005					
Mo (TRC) (mg/L)	< 0.002	05/24/11-04/24/19	O	72	0	< 0.001	< .005					
Ni (TRC) (mg/L)	0.003	05/24/11-04/24/19	DUP	72	11	< 0.001	< .01					
Ni (TRC) (mg/L)	0.004	05/24/11-04/24/19	O	72	11	< 0.001	< .01					
Se (TRC) (mg/L)	< 0.0002	05/24/11-04/24/19	DUP	72	0	< 0.0002	< .001					
Se (TRC) (mg/L)	< 0.0002	05/24/11-04/24/19	O	72	0	< 0.0002	< .001					
Ag (TRC) (mg/L)	< 0.0002	05/24/11-04/24/19	DUP	72	0	< 0.0002	< .0005					
Ag (TRC) (mg/L)	< 0.0002	05/24/11-04/24/19	O	72	0	< 0.0002	< .0005					
Sr (TRC) (mg/L)	0.0697	05/24/11-04/24/19	DUP	72	69	0.0708	0.147	0.1153	0.119	0.0167	2.7288	L
Sr (TRC) (mg/L)	0.0708	05/24/11-04/24/19	O	72	69	0.0708	0.147	0.1153	0.119	0.0167	2.6629	L
Tl (TRC) (mg/L)	< 0.0002	05/24/11-04/24/19	DUP	72	0	< 0.0002	: 0 .0002					
Tl (TRC) (mg/L)	< 0.0002	05/24/11-04/24/19	O	72	0	< 0.0002	: 0 .0002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

U (TRC) (mg/L)	0.0003	05/24/11-04/24/19	DUP	72	13	0.0003	< .008
U (TRC) (mg/L)	0.0003	05/24/11-04/24/19	O	72	13	0.0003	< .008
Zn (TRC) (mg/L)	0.007	05/24/11-04/24/19	DUP	72	25	< 0.002	< .01
Zn (TRC) (mg/L)	0.009	05/24/11-04/24/19	O	72	25	< 0.002	< .01

SAMPLE NO BBC-1904-116 LAB NO: H19040763-019 STATION:SW-2

04/24/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	11.16	05/24/11-04/24/19	O	75	75	6.35	16.18	11.04	10.96	1.71	0.07	
pH Fld (s.u.)	8.03	05/24/11-04/24/19	O	74	74	0.0	8.73	6.78	8.05	1.01	1.24	
SC Fld (umhos/cm)	178	05/24/11-04/24/19	O	75	75	156.0	388.0	277.2	306	54.8	1.8	
Flow (Cubic Ft Sec)	93.98	05/24/11-04/24/19	O	47	47	0.0	250.0	9.52	19.11	50.47	1.67	
Gauge (Feet)	1.1	05/24/11-04/24/19	O	40	40	0.2	1.7	0.6	0.7	0.4	1.1	
Water Temp (Deg C)	1.4	05/24/11-04/24/19	O	75	75	-1.0	15.8	0.2	2.9	4.9	0.2	
TDS (mg/L)	128	05/24/11-04/24/19	O	72	72	112.0	223.0	164.9	173	25.4	1.5	
TSS (mg/L)	< 4	05/30/12-04/24/19	O	68	19	4.0	105.0					
Tot Alk (mg/L)	85	05/24/11-04/24/19	O	72	72	80.0	200.0	149.8	160	28.2	2.3	
Ca (mg/L)	25	05/24/11-04/24/19	O	72	72	21.0	58.0	42.4	46	8.3	2.1	
Cl (mg/L)	2	05/24/11-04/24/19	O	72	70	1.0	5.0	1.4	1	0.7	0.9	
F (mg/L)	< 0.1	05/24/11-04/24/19	O	72	1	< 0.1	0.4					
Tot Hard (mg/L)	89	05/24/11-04/24/19	O	72	71	< 7	202.0	143.5	164	33.4	1.6	
Mg (mg/L)	6	05/24/11-04/24/19	O	72	72	5.0	15.0	10.7	12	2.2	2.1	
K (mg/L)	1	05/24/11-04/24/19	O	72	67	1.0	2.0	1.0	1	0.1	0.1	L
Na (mg/L)	2	05/24/11-04/24/19	O	72	72	1.0	3.0	2.0	2	0.3	0.1	
SO4 (mg/L)	4	05/24/11-04/24/19	O	72	72	2.0	9.0	4.9	5	1.5	0.6	
N+N (mg/L)	0.03	05/24/11-04/24/19	O	72	36	< 0.01	0.12					
Tot Phos (mg/L)	0.066	05/16/14-04/24/19	O	58	50	< 0.003	0.182	0.01	0.008	0.024	2.34	
Tot Pers (mg/L)	0.4	04/29/15-04/24/19	O	46	40	< 0	1.4	0.1	0.1	0.2	1.5	
Al (DIS) (mg/L)	0.47	05/24/11-04/24/19	O	72	32	< 0.01	0.47					
Sb (TRC) (mg/L)	< 0.0005	05/24/11-04/24/19	O	72	0	< 0.0005	< .005					
As (TRC) (mg/L)	0.001	05/24/11-04/24/19	O	72	2	< 0.001	< .003					
Ba (TRC) (mg/L)	0.106	05/24/11-04/24/19	O	72	72	0.07	0.128	0.095	0.095	0.011	1.037	
Be (TRC) (mg/L)	< 0.0008	05/24/11-04/24/19	O	72	0	< 0.0008	< .001					
Cd (TRC) (mg/L)	< 0	05/24/11-04/24/19	O	72	3	< 0	< .00008					
Cr (TRC) (mg/L)	< 0.01	05/24/11-04/24/19	O	72	1	< 0	< .01					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Co (TRC) (mg/L)	< 0.01	05/24/11-04/24/19	O	72	0	< 0.01	< .01					
Cu (TRC) (mg/L)	0.003	05/24/11-04/24/19	O	72	6	< 0.001	0.004					
Fe (TRC) (mg/L)	1.45	05/24/11-04/24/19	O	72	72	0.09	2.49	0.21	0.15	0.36	3.45	*
Pb (TRC) (mg/L)	0.0009	05/24/11-04/24/19	O	72	15	< 0.0003	0.0017					
Mn (TRC) (mg/L)	0.035	05/24/11-04/24/19	O	72	72	0.006	0.116	0.011	0.01	0.013	1.821	
Hg (TRC) (ug/L)	0.025	05/24/11-04/24/19	O	72	12	< 0	0.025					
Mo (TRC) (mg/L)	< 0.002	05/24/11-04/24/19	O	72	0	< 0.001	< .005					
Ni (TRC) (mg/L)	0.003	05/24/11-04/24/19	O	72	12	< 0.001	< .01					
Se (TRC) (mg/L)	< 0.0002	05/24/11-04/24/19	O	72	0	< 0.0002	< .001					
Ag (TRC) (mg/L)	< 0.0002	05/24/11-04/24/19	O	72	0	< 0.0002	< .0005					
Sr (TRC) (mg/L)	0.0772	05/24/11-04/24/19	O	72	70	0.0772	0.15	0.1179	0.123	0.0152	2.6776	L
Tl (TRC) (mg/L)	< 0.0002	05/24/11-04/24/19	O	72	0	< 0.0002	: 0 .0002					
U (TRC) (mg/L)	0.0003	05/24/11-04/24/19	O	72	11	< 0.0003	< .008					
Zn (TRC) (mg/L)	0.007	05/24/11-04/24/19	O	72	21	< 0.002	0.014					

SAMPLE NO BBC-1904-110 LAB NO: H19040763-014 STATION:SW-3

04/23/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	9.57	05/24/11-04/23/19	O	31	31	5.95	12.87	9.9	9.7	1.54	0.22	
pH Fld (s.u.)	7.97	05/24/11-04/23/19	O	31	31	7.92	8.7	8.26	8.28	0.17	1.69	
SC Fld (umhos/cm)	238	05/24/11-04/23/19	O	31	31	238.0	423.0	368.2	387	44	3.0	L
Flow (Gallons Per Min)	-9999	05/24/11-04/23/19	O	26	26	-9999.0	4.9	0.1	0.1	0.9	11110.1	*L
Gauge (Feet)	0.95	08/25/11-04/23/19	O	18	18	0.11	0.96	0.38	0.45	0.24	2.37	
Water Temp (Deg C)	5.9	05/24/11-04/23/19	O	31	31	0.0	14.5	2.9	8.3	4.8	0.6	
TDS (mg/L)	149	05/24/11-04/23/19	O	30	30	149.0	255.0	213.7	220.5	20.4	3.2	*L
TSS (mg/L)	16	05/30/12-04/23/19	O	27	11	< 4	16.0					
Tot Alk (mg/L)	120	05/24/11-04/23/19	O	30	30	120.0	210.0	191.7	200	19.1	3.8	*L
Ca (mg/L)	27	05/24/11-04/23/19	O	30	30	27.0	52.0	44.8	47	5.2	3.4	*L
Cl (mg/L)	2	05/24/11-04/23/19	O	30	28	1.0	3.0	1.5	2	0.6	0.8	
F (mg/L)	0.1	05/24/11-04/23/19	O	30	30	0.1	0.2	0.2	0.2	0	0.0	L
Tot Hard (mg/L)	116	05/24/11-04/23/19	O	30	30	116.0	234.0	201.5	214	24.6	3.5	*L
Mg (mg/L)	12	05/24/11-04/23/19	O	30	30	12.0	25.0	21.8	23	2.8	3.5	*L
K (mg/L)	2	05/24/11-04/23/19	O	30	25	1.0	4.0	1.1	1	0.5	1.8	
Na (mg/L)	1	05/24/11-04/23/19	O	30	30	1.0	2.0	2.0	2	0.2	4.8	*L
SO4 (mg/L)	7	05/24/11-04/23/19	O	30	30	5.0	26.0	15.3	17	5.3	1.6	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

N+N (mg/L)	0.02	05/24/11-04/23/19	O	30	25	< 0.01	0.12	0.04	0.05	0.03	0.56	
Tot Phos (mg/L)	0.076	06/10/14-04/23/19	O	21	20	0.004	0.094	0.015	0.014	0.021	2.923	
Tot Pers (mg/L)	0.41	06/24/15-04/23/19	O	18	17	< 0.04	0.6	0.15	0.14	0.12	2.16	
Al (DIS) (mg/L)	0.047	05/24/11-04/23/19	O	30	5	< 0.009	0.07					
Sb (TRC) (mg/L)	< 0.0005	05/24/11-04/23/19	O	30	0	< 0.0005	< .005					
As (TRC) (mg/L)	< 0.001	05/24/11-04/23/19	O	30	0	< 0.001	< .003					
Ba (TRC) (mg/L)	0.115	05/24/11-04/23/19	O	30	30	0.115	0.176	0.147	0.152	0.016	1.969	L
Be (TRC) (mg/L)	< 0.0008	05/24/11-04/23/19	O	30	0	< 0.0008	< .001					
Cd (TRC) (mg/L)	0.00005	05/24/11-04/23/19	O	30	1	< 0	< .00008					
Cr (TRC) (mg/L)	< 0.01	05/24/11-04/23/19	O	30	0	< 0	< .01					
Co (TRC) (mg/L)	< 0.01	05/24/11-04/23/19	O	30	0	< 0.01	< .01					
Cu (TRC) (mg/L)	< 0.002	05/24/11-04/23/19	O	30	4	0.001	0.003					
Fe (TRC) (mg/L)	0.7	05/24/11-04/23/19	O	30	30	0.0	1.1	0.2	0.2	0.2	2.7	
Pb (TRC) (mg/L)	0.0018	05/24/11-04/23/19	O	30	16	< 0.0003	0.0031	0.0005	0.0004	0.0006	2.1876	
Mn (TRC) (mg/L)	0.025	05/24/11-04/23/19	O	30	12	< 0.005	0.2					
Hg (TRC) (ug/L)	0.009	05/24/11-04/23/19	O	30	4	< 0	0.009					
Mo (TRC) (mg/L)	< 0.002	05/24/11-04/23/19	O	30	0	< 0.001	< .005					
Ni (TRC) (mg/L)	< 0.001	05/24/11-04/23/19	O	30	0	< 0.001	< .01					
Se (TRC) (mg/L)	< 0.0002	05/24/11-04/23/19	O	30	3	< 0.0002	< .001					
Ag (TRC) (mg/L)	< 0.0002	05/24/11-04/23/19	O	30	0	< 0.0002	< .0005					
Sr (TRC) (mg/L)	0.0665	05/24/11-04/23/19	O	30	27	0.0665	0.123	0.1044	0.104	0.0117	3.2416	*L
Tl (TRC) (mg/L)	< 0.0002	05/24/11-04/23/19	O	30	3	< 0.0002	0.0004					
U (TRC) (mg/L)	0.0004	05/24/11-04/23/19	O	30	10	0.0004	< .008					
Zn (TRC) (mg/L)	0.006	05/24/11-04/23/19	O	30	17	< 0.002	0.033	0.004	0.003	0.006	0.377	

SAMPLE NO BBC-1904-108 LAB NO: H19040763-003

STATION:SW-7

04/23/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	8.8	11/26/12-04/23/19	O	22	22	2.8	11.3	7.9	8.1	1.7	0.5	
pH Fld (s.u.)	7.8	11/26/12-04/23/19	O	22	22	6.2	8.0	7.6	7.7	0.4	0.5	
SC Fld (umhos/cm)	344	11/26/12-04/23/19	O	22	22	344.0	426.3	402.8	408.3	21.7	2.7	L
Flow (Gallons Per Min)	42.2	11/26/12-04/23/19	O	20	20	0.0	54.8	3.4	6.7	19.7	2.0	
Water Temp (Deg C)	5.3	11/26/12-04/23/19	O	22	22	0.6	13.1	6.8	8.6	3.2	0.5	
TDS (mg/L)	192	11/26/12-04/23/19	O	22	22	192.0	241.0	222.6	225	12.4	2.5	L
TSS (mg/L)	15	11/26/12-04/23/19	O	22	8	< 10	219.0					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Tot Alk (mg/L)	180	11/26/12-04/23/19	O	22	22	180.0	230.0	214.7	220	10.6	3.3	*L
Ca (mg/L)	49	11/26/12-04/23/19	O	22	22	49.0	64.0	58.0	58	3.6	2.5	L
Cl (mg/L)	< 1	11/26/12-04/23/19	O	22	1	< 1	2.0					
F (mg/L)	0.1	11/26/12-04/23/19	O	22	17	< 0.1	< 0 .1	0.1	0.1	0	0.0	H
Tot Hard (mg/L)	184	11/26/12-04/23/19	O	22	22	184.0	242.0	220.1	222	14.3	2.5	L
Mg (mg/L)	15	11/26/12-04/23/19	O	22	22	15.0	21.0	18.4	19	1.4	2.4	L
K (mg/L)	< 1	11/26/12-04/23/19	O	22	1	< 1	< 1					
Na (mg/L)	1	11/26/12-04/23/19	O	22	22	1.0	2.0	1.9	2	0.2	4.7	*L
SO4 (mg/L)	9	11/26/12-04/23/19	O	22	22	6.0	11.0	8.9	9.1	1.4	0.1	
N+N (mg/L)	0.08	11/26/12-04/23/19	O	22	19	< 0.01	0.13	0.03	0.04	0.03	1.58	
Al (DIS) (mg/L)	0.018	11/26/12-04/23/19	O	22	1	< 0.009	0.018					
Sb (DIS) (mg/L)	< 0.0005	04/27/16-04/23/19	O	18	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	04/27/16-04/23/19	O	18	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.042	04/27/16-04/23/19	O	18	18	0.042	0.065	0.053	0.054	0.007	1.571	L
Be (DIS) (mg/L)	< 0.0008	04/27/16-04/23/19	O	18	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	04/27/16-04/23/19	O	18	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	04/27/16-04/23/19	O	18	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	04/27/16-04/23/19	O	18	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	04/27/16-04/23/19	O	18	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	04/27/16-04/23/19	O	18	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	04/27/16-04/23/19	O	18	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	04/27/16-04/23/19	O	18	7	< 0.005	0.017					
Hg (DIS) (ug/L)	< 0.005	04/27/16-04/23/19	O	18	0	< 0	< .005					
Mo (DIS) (mg/L)	< 0.002	04/27/16-04/23/19	O	18	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	04/27/16-04/23/19	O	18	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	04/27/16-04/23/19	O	18	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	04/27/16-04/23/19	O	18	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.105	04/27/16-04/23/19	O	18	18	0.105	0.146	0.131	0.134	0.01	2.61	L
Tl (DIS) (mg/L)	< 0.0002	04/27/16-04/23/19	O	18	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0004	04/27/16-04/23/19	O	18	2	0.0004	< .008					
Zn (DIS) (mg/L)	< 0.002	04/27/16-04/23/19	O	18	1	< 0.002	0.003					

SAMPLE NO BBC-1904-117 LAB NO: H19040763-020

STATION:USGS-SC1

04/24/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

DO (mg/L)	11.09	03/24/14-04/24/19	O	62	62	7.12	16.55	11.15	11.14	1.59	0.04	
pH Fld (s.u.)	8.16	03/24/14-04/24/19	O	61	61	6.67	8.67	7.97	8.16	0.43	0.43	
SC Fld (umhos/cm)	272	03/24/14-04/24/19	O	62	62	137.0	408.0	324.3	343	50.2	1.0	
Flow (Cubic Ft Sec)	-9999	05/05/14-04/24/19	O	39	39	-9999.0	111.3	5.3	18.6	37.4	267.5	*L
Water Temp (Deg C)	1.6	03/24/14-04/24/19	O	62	62	-1.0	13.1	0.3	2.6	4.2	0.3	
TDS (mg/L)	164	03/24/14-04/24/19	O	60	60	134.0	230.0	188.4	195	18.9	1.3	
TSS (mg/L)	40	03/24/14-04/24/19	O	60	17	< 4	40.0					
Tot Alk (mg/L)	130	03/24/14-04/24/19	O	60	60	120.0	220.0	175.4	180	21.3	2.1	
Ca (mg/L)	38	03/24/14-04/24/19	O	60	60	35.0	61.0	50.3	52	5.9	2.1	
Cl (mg/L)	4	03/24/14-04/24/19	O	60	60	1.0	5.0	1.5	1.6	0.9	2.8	
F (mg/L)	< 0.1	03/24/14-04/24/19	O	60	1	< 0.1	< 0 .1					
Tot Hard (mg/L)	134	03/24/14-04/24/19	O	60	59	< 7	214.0	167.6	185	29.2	1.2	
Mg (mg/L)	9	03/24/14-04/24/19	O	60	60	8.0	15.0	12.5	13	1.6	2.2	
K (mg/L)	1	03/24/14-04/24/19	O	60	60	1.0	1.0	1.0	1	0	0.0	H
Na (mg/L)	3	03/24/14-04/24/19	O	60	60	2.0	3.0	2.1	2	0.3	3.1	*H
SO4 (mg/L)	5	03/24/14-04/24/19	O	60	60	3.0	8.0	5.7	6	1.4	0.5	
N+N (mg/L)	0.05	03/24/14-04/24/19	O	60	42	< 0.01	0.13	0.03	0.03	0.04	0.49	
Tot Phos (mg/L)	0.054	05/16/14-04/24/19	O	57	42	< 0.003	0.054	0.007	0.007	0.01	4.662	*H
Tot Pers (mg/L)	0.3	04/29/15-04/24/19	O	46	36	< 0	1.1	0.1	0.1	0.2	1.1	
Al (DIS) (mg/L)	0.124	03/24/14-04/24/19	O	60	18	< 0.009	0.189					
Sb (TRC) (mg/L)	< 0.0005	03/24/14-04/24/19	O	60	0	< 0.0005	< 0 .0005					
As (TRC) (mg/L)	< 0.001	03/24/14-04/24/19	O	60	1	< 0.001	< 0 .001					
Ba (TRC) (mg/L)	0.072	03/24/14-04/24/19	O	60	60	0.06	0.088	0.069	0.068	0.005	0.596	
Be (TRC) (mg/L)	< 0.0008	03/24/14-04/24/19	O	60	0	< 0.0008	< 0 .0008					
Cd (TRC) (mg/L)	< 0	03/24/14-04/24/19	O	60	2	< 0	0.0001					
Cr (TRC) (mg/L)	< 0.01	03/24/14-04/24/19	O	60	0	< 0.01	< .01					
Co (TRC) (mg/L)	< 0.01	03/24/14-04/24/19	O	60	0	< 0.01	< .01					
Cu (TRC) (mg/L)	< 0.002	03/24/14-04/24/19	O	60	1	0.002	0.002					
Fe (TRC) (mg/L)	1.22	03/24/14-04/24/19	O	60	60	0.07	1.71	0.17	0.13	0.3	3.49	*
Pb (TRC) (mg/L)	0.0007	03/24/14-04/24/19	O	60	8	< 0.0003	0.0011					
Mn (TRC) (mg/L)	0.033	03/24/14-04/24/19	O	60	60	0.005	0.079	0.009	0.009	0.01	2.353	
Hg (TRC) (ug/L)	0.011	03/24/14-04/24/19	O	60	3	< 0	0.011					
Mo (TRC) (mg/L)	< 0.002	03/24/14-04/24/19	O	60	0	< 0.001	< .002					
Ni (TRC) (mg/L)	0.002	03/24/14-04/24/19	O	60	8	< 0.001	0.003					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Se (TRC) (mg/L)	< 0.0002	03/24/14-04/24/19	O	60	0	< 0.0002	< .0004					
Ag (TRC) (mg/L)	< 0.0002	03/24/14-04/24/19	O	60	1	< 0.0002	< .0004					
Sr (TRC) (mg/L)	0.119	03/24/14-04/24/19	O	60	60	0.119	0.16	0.142	0.144	0.009	2.525	L
Tl (TRC) (mg/L)	< 0.0002	03/24/14-04/24/19	O	60	0	< 0.0002	: 0 .0002					
U (TRC) (mg/L)	0.0003	03/24/14-04/24/19	O	60	7	0.0003	< .008					
Zn (TRC) (mg/L)	0.004	03/24/14-04/24/19	O	60	18	< 0.002	0.009					

SAMPLE NO BBC-1904-127 LAB NO: H19040763-021

STATION:DI-Blank

04/24/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
TDS (mg/L)	< 10	N/A	FB	0								
TDS (mg/L)	< 10	N/A	FB	0								
TSS (mg/L)	< 4	N/A	FB	0								
TSS (mg/L)	< 10	N/A	FB	0								
Tot Alk (mg/L)	< 4	N/A	FB	0								
Tot Alk (mg/L)	< 4	N/A	FB	0								
Ca (mg/L)	< 1	N/A	FB	0								
Ca (mg/L)	< 1	N/A	FB	0								
Cl (mg/L)	< 1	N/A	FB	0								
Cl (mg/L)	< 1	N/A	FB	0								
F (mg/L)	< 0.1	N/A	FB	0								
F (mg/L)	< 0.1	N/A	FB	0								
Tot Hard (mg/L)	< 1	N/A	FB	0								
Tot Hard (mg/L)	< 1	N/A	FB	0								
Mg (mg/L)	< 1	N/A	FB	0								
Mg (mg/L)	< 1	N/A	FB	0								
K (mg/L)	< 1	N/A	FB	0								
K (mg/L)	< 1	N/A	FB	0								
Na (mg/L)	< 1	N/A	FB	0								
Na (mg/L)	< 1	N/A	FB	0								
SO4 (mg/L)	< 1	N/A	FB	0								
SO4 (mg/L)	< 1	N/A	FB	0								
N+N (mg/L)	< 0.01	N/A	FB	0								
N+N (mg/L)	< 0.01	N/A	FB	0								
Tot Phos (mg/L)	< 0.003	N/A	FB	0								

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Tot Pers (mg/L)	< 0.04	N/A	FB	0
Al (DIS) (mg/L)	< 0.009	N/A	FB	0
Al (DIS) (mg/L)	< 0.009	N/A	FB	0
Sb (DIS) (mg/L)	< 0.0005	N/A	FB	0
Sb (TRC) (mg/L)	< 0.0005	N/A	FB	0
As (DIS) (mg/L)	< 0.001	N/A	FB	0
As (TRC) (mg/L)	< 0.001	N/A	FB	0
Ba (DIS) (mg/L)	< 0.003	N/A	FB	0
Ba (TRC) (mg/L)	< 0.003	N/A	FB	0
Be (DIS) (mg/L)	< 0.0008	N/A	FB	0
Be (TRC) (mg/L)	< 0.0008	N/A	FB	0
Cd (TRC) (mg/L)	< 0	N/A	FB	0
Cd (DIS) (mg/L)	< 0	N/A	FB	0
Cr (TRC) (mg/L)	< 0.01	N/A	FB	0
Cr (DIS) (mg/L)	< 0.01	N/A	FB	0
Co (TRC) (mg/L)	< 0.01	N/A	FB	0
Co (DIS) (mg/L)	< 0.01	N/A	FB	0
Cu (DIS) (mg/L)	< 0.002	N/A	FB	0
Cu (TRC) (mg/L)	< 0.002	N/A	FB	0
Fe (DIS) (mg/L)	< 0.02	N/A	FB	0
Fe (TRC) (mg/L)	< 0.02	N/A	FB	0
Pb (DIS) (mg/L)	< 0.0003	N/A	FB	0
Pb (TRC) (mg/L)	< 0.0003	N/A	FB	0
Mn (TRC) (mg/L)	< 0.005	N/A	FB	0
Mn (DIS) (mg/L)	< 0.005	N/A	FB	0
Hg (TRC) (ug/L)	< 0.005	N/A	FB	0
Hg (DIS) (ug/L)	< 0.005	N/A	FB	0
Mo (TRC) (mg/L)	< 0.002	N/A	FB	0
Mo (DIS) (mg/L)	< 0.002	N/A	FB	0
Ni (DIS) (mg/L)	< 0.001	N/A	FB	0
Ni (TRC) (mg/L)	< 0.001	N/A	FB	0
Se (TRC) (mg/L)	< 0.0002	N/A	FB	0
Se (DIS) (mg/L)	< 0.0002	N/A	FB	0
Ag (DIS) (mg/L)	< 0.0002	N/A	FB	0

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Ag (TRC) (mg/L)	< 0.0002	N/A	FB	0
Sr (DIS) (mg/L)	< 0.0002	N/A	FB	0
Sr (TRC) (mg/L)	< 0.0002	N/A	FB	0
Tl (DIS) (mg/L)	< 0.0002	N/A	FB	0
Tl (TRC) (mg/L)	< 0.0002	N/A	FB	0
U (DIS) (mg/L)	< 0.0002	N/A	FB	0
U (TRC) (mg/L)	< 0.0002	N/A	FB	0
Zn (DIS) (mg/L)	< 0.002	N/A	FB	0
Zn (TRC) (mg/L)	< 0.002	N/A	FB	0

SAMPLE NO BBC-1904-112 LAB NO: H19040763-015

STATION:SW-14

04/23/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	8.43	04/13/16-04/23/19	O	33	33	8.24	15.01	10.66	10.41	1.65	1.35	
pH Fld (s.u.)	7.98	04/13/16-04/23/19	O	32	32	6.07	8.48	7.91	8.05	0.46	0.16	
SC Fld (umhos/cm)	274	04/13/16-04/23/19	O	33	33	263.0	439.0	373.2	394	51.9	1.9	
Flow (Cubic Ft Sec)	15.54	04/13/16-04/23/19	O	27	27	0.0	15.54	0.36	1.05	3.8	3.99	*H
Gauge (Feet)	1.05	04/13/16-04/23/19	O	19	19	0.3	1.05	0.47	0.45	0.17	3.43	*H
Water Temp (Deg C)	10	04/13/16-04/23/19	O	33	33	-0.9	14.7	2.2	5.4	4.6	1.7	
TDS (mg/L)	167	04/13/16-04/23/19	O	33	33	157.0	244.0	219.3	226	22.1	2.4	
TSS (mg/L)	18	04/13/16-04/23/19	O	33	5	< 4	18.0					
Tot Alk (mg/L)	130	04/13/16-04/23/19	O	33	33	130.0	220.0	200.0	210	26.6	2.6	L
Ca (mg/L)	33	04/13/16-04/23/19	O	33	33	33.0	61.0	52.0	54	7.1	2.7	L
Cl (mg/L)	1	04/13/16-04/23/19	O	33	33	1.0	4.0	1.9	2	0.5	1.8	L
F (mg/L)	0.1	04/13/16-04/23/19	O	33	32	< 0.1	0.2	0.2	0.2	0	0.0	L
Tot Hard (mg/L)	136	04/13/16-04/23/19	O	33	33	134.0	239.0	206.0	214	27.1	2.6	
Mg (mg/L)	13	04/13/16-04/23/19	O	33	33	12.0	23.0	18.5	19	2.6	2.1	
K (mg/L)	2	04/13/16-04/23/19	O	33	32	1.0	4.0	1.1	1	0.7	1.3	
Na (mg/L)	2	04/13/16-04/23/19	O	33	33	1.0	3.0	2.5	3	0.6	0.8	
SO4 (mg/L)	8	04/13/16-04/23/19	O	33	33	6.5	19.0	9.0	8.7	2.9	0.4	
N+N (mg/L)	0.04	04/13/16-04/23/19	O	33	32	0.01	0.27	0.07	0.08	0.08	0.32	
Tot Phos (mg/L)	0.028	04/13/16-04/23/19	O	33	28	< 0.003	0.18	0.008	0.008	0.034	0.586	
Tot Pers (mg/L)	0.37	04/13/16-04/23/19	O	30	29	< 0	1.25	0.19	0.22	0.23	0.79	
Al (DIS) (mg/L)	0.029	04/13/16-04/23/19	O	33	4	< 0.009	0.047					
Sb (TRC) (mg/L)	< 0.0005	04/13/16-04/23/19	O	33	0	< 0.0005	: 0 .0005					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

As (TRC) (mg/L)	< 0.001	04/13/16-04/23/19	O	33	0	< 0.001	< 0 .001				
Ba (TRC) (mg/L)	0.081	04/13/16-04/23/19	O	33	33	0.077	0.13	0.11	0.115	0.014	2.047
Be (TRC) (mg/L)	< 0.0008	04/13/16-04/23/19	O	33	0	< 0.0008	: 0 .0008				
Cd (TRC) (mg/L)	< 0	04/13/16-04/23/19	O	33	2	< 0	: .00003				
Cr (TRC) (mg/L)	< 0.01	04/13/16-04/23/19	O	33	0	< 0.01	< 0 .01				
Co (TRC) (mg/L)	< 0.01	04/13/16-04/23/19	O	33	0	< 0.01	< 0 .01				
Cu (TRC) (mg/L)	< 0.002	04/13/16-04/23/19	O	33	0	< 0.002	< 0 .002				
Fe (TRC) (mg/L)	0.15	04/13/16-04/23/19	O	33	30	0.02	0.43	0.06	0.06	0.08	1.17
Pb (TRC) (mg/L)	< 0.0003	04/13/16-04/23/19	O	33	1	< 0.0003	0.0005				
Mn (TRC) (mg/L)	< 0.005	04/13/16-04/23/19	O	33	6	< 0.005	0.009				
Hg (TRC) (ug/L)	0.009	04/13/16-04/23/19	O	33	2	< 0	0.018				
Mo (TRC) (mg/L)	< 0.002	04/13/16-04/23/19	O	33	0	< 0.002	< 0 .002				
Ni (TRC) (mg/L)	< 0.001	04/13/16-04/23/19	O	33	1	< 0.001	0.002				
Se (TRC) (mg/L)	< 0.0002	04/13/16-04/23/19	O	33	1	< 0.0002	< .0004				
Ag (TRC) (mg/L)	< 0.0002	04/13/16-04/23/19	O	33	0	< 0.0002	: 0 .0002				
Sr (TRC) (mg/L)	0.079	04/13/16-04/23/19	O	33	33	0.075	0.136	0.117	0.124	0.017	2.206
Tl (TRC) (mg/L)	< 0.0002	04/13/16-04/23/19	O	33	0	< 0.0002	: 0 .0002				
U (TRC) (mg/L)	0.0004	04/13/16-04/23/19	O	33	5	0.0003	< .008				
Zn (TRC) (mg/L)	< 0.002	04/13/16-04/23/19	O	33	5	< 0.002	0.006				

SAMPLE NO BBC-1904-115 LAB NO: H19040763-018

STATION:SW-17

04/24/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	9.88	01/17/18-04/24/19	O	14	14	9.32	11.38	10.38	10.44	0.66	0.75	
pH Fld (s.u.)	7.8	01/17/18-04/24/19	O	14	14	7.5	8.4	8.0	8.1	0.3	0.7	
SC Fld (umhos/cm)	326	01/17/18-04/24/19	O	14	14	319.0	487.0	420.1	434.5	45.9	2.0	
Flow (Cubic Ft Sec)	4.36	01/17/18-04/24/19	O	9	9	0.0	4.36	0.07	0.19	1.33	3.23	*H
Water Temp (Deg C)	2.9	01/17/18-04/24/19	O	14	14	0.0	13.3	1.6	2.9	4.6	0.3	
TDS (mg/L)	191	01/17/18-04/24/19	O	15	15	191.0	299.0	247.6	253	26.2	2.2	L
TSS (mg/L)	54	01/17/18-04/24/19	O	15	6	< 4	54.0					
Tot Alk (mg/L)	150	01/17/18-04/24/19	O	15	15	150.0	210.0	196.7	210	20.4	2.3	L
Ca (mg/L)	38	01/17/18-04/24/19	O	15	15	38.0	63.0	53.1	56	6	2.5	L
Cl (mg/L)	7	01/17/18-04/24/19	O	15	15	3.0	11.0	4.5	4	2	1.3	
F (mg/L)	0.1	01/17/18-04/24/19	O	15	15	0.1	0.2	0.2	0.2	0	0.0	L
Tot Hard (mg/L)	167	01/17/18-04/24/19	O	15	15	167.0	262.0	227.0	240	26.4	2.3	L

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Mg (mg/L)	17	01/17/18-04/24/19	O	15	15	14.0	25.0	22.9	25	3.1	1.9	
K (mg/L)	2	01/17/18-04/24/19	O	15	13	1.0	4.0	1.1	1	0.7	1.2	
Na (mg/L)	2	01/17/18-04/24/19	O	15	15	2.0	5.0	2.4	2	0.8	0.5	L
SO4 (mg/L)	16	01/17/18-04/24/19	O	15	15	12.0	44.0	27.7	33	7.9	1.5	
N+N (mg/L)	0.07	01/17/18-04/24/19	O	15	14	< 0.01	0.19	0.08	0.1	0.06	0.16	
Tot Phos (mg/L)	0.023	01/17/18-04/24/19	O	15	15	0.004	0.088	0.014	0.014	0.021	0.434	
Tot Pers (mg/L)	0.33	04/12/18-04/24/19	O	12	12	0.12	0.7	0.25	0.25	0.15	0.56	
Al (DIS) (mg/L)	0.012	01/17/18-04/24/19	O	15	2	< 0.009	0.016					
Sb (TRC) (mg/L)	< 0.0005	01/17/18-04/24/19	O	15	0	< 0.0005	: 0 .0005					
As (TRC) (mg/L)	< 0.001	01/17/18-04/24/19	O	15	0	< 0.001	< 0 .001					
Ba (TRC) (mg/L)	0.112	01/17/18-04/24/19	O	15	15	0.108	0.168	0.146	0.151	0.015	2.272	
Be (TRC) (mg/L)	< 0.0008	01/17/18-04/24/19	O	15	0	< 0.0008	: 0 .0008					
Cd (TRC) (mg/L)	< 0	01/17/18-04/24/19	O	15	1	< 0	0.0002					
Cr (TRC) (mg/L)	< 0.01	01/17/18-04/24/19	O	15	0	< 0.01	< 0 .01					
Co (TRC) (mg/L)	< 0.01	01/17/18-04/24/19	O	15	0	< 0.01	< 0 .01					
Cu (TRC) (mg/L)	< 0.002	01/17/18-04/24/19	O	15	0	< 0.002	< 0 .002					
Fe (TRC) (mg/L)	0.11	01/17/18-04/24/19	O	15	15	0.07	0.36	0.14	0.13	0.08	0.41	
Pb (TRC) (mg/L)	< 0.0003	01/17/18-04/24/19	O	15	1	< 0.0003	: 0 .0003					
Mn (TRC) (mg/L)	0.012	01/17/18-04/24/19	O	15	15	0.008	0.051	0.02	0.024	0.012	0.661	
Hg (TRC) (ug/L)	0.005	01/17/18-04/24/19	O	15	2	< 0	0.009					
Mo (TRC) (mg/L)	< 0.002	01/17/18-04/24/19	O	15	0	< 0.002	< 0 .002					
Ni (TRC) (mg/L)	< 0.001	01/17/18-04/24/19	O	15	0	< 0.001	< .002					
Se (TRC) (mg/L)	< 0.0002	01/17/18-04/24/19	O	15	0	< 0.0002	: 0 .0002					
Ag (TRC) (mg/L)	< 0.0002	01/17/18-04/24/19	O	15	0	< 0.0002	: 0 .0002					
Sr (TRC) (mg/L)	0.0854	01/17/18-04/24/19	O	15	15	0.0854	0.164	0.1393	0.146	0.0195	2.765	L
Tl (TRC) (mg/L)	< 0.0002	01/17/18-04/24/19	O	15	4	< 0.0002	: 0 .0002					
U (TRC) (mg/L)	0.0005	01/17/18-04/24/19	O	15	4	0.0005	< .008					
Zn (TRC) (mg/L)	0.002	01/17/18-04/24/19	O	15	9	0.002	0.008	0.003	0.002	0.002	0.377	L

SAMPLE NO BBC-1904-109 LAB NO: H19040763-013

STATION:SW-18

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
04/23/19												
DO (mg/L)	0	04/23/19	O	1	1	0.0	0.0	0.0	0	0	0.0	H
pH Fld (s.u.)	8.19	04/23/19	O	1	1	8.19	8.19	8.19	8.19	0	0.0	H
SC Fld (umhos/cm)	75	04/23/19	O	1	1	75.0	75.0	75.0	75	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Flow (Gallons Per Min)	-9999	04/23/19	O	1	1	-9999.0	-9999.0	0.0	0	0	0.0	H
Water Temp (Deg C)	1	04/23/19	O	1	1	1.0	1.0	1.0	1	0	0.0	H
TDS (mg/L)	53	04/23/19	O	1	1	53.0	53.0	53.0	53	0	0.0	H
TSS (mg/L)	< 4	04/23/19	O	1	0	< 4	< 4					
Tot Alk (mg/L)	39	04/23/19	O	1	1	39.0	39.0	39.0	39	0	0.0	H
Ca (mg/L)	8	04/23/19	O	1	1	8.0	8.0	8.0	8	0	0.0	H
Cl (mg/L)	< 1	04/23/19	O	1	0	< 1	< 1					
F (mg/L)	< 0.1	04/23/19	O	1	0	< 0.1	< 0 .1					
Tot Hard (mg/L)	35	04/23/19	O	1	1	35.0	35.0	35.0	35	0	0.0	H
Mg (mg/L)	3	04/23/19	O	1	1	3.0	3.0	3.0	3	0	0.0	H
K (mg/L)	2	04/23/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
Na (mg/L)	< 1	04/23/19	O	1	0	< 1	< 1					
SO4 (mg/L)	< 1	04/23/19	O	1	0	< 1	< 1					
N+N (mg/L)	0.03	04/23/19	O	1	1	0.03	0.03	0.03	0.03	0	0.0	H
Tot Phos (mg/L)	0.095	04/23/19	O	1	1	0.095	0.095	0.095	0.095	0	0.0	H
Tot Pers (mg/L)	0.39	04/23/19	O	1	1	0.39	0.39	0.39	0.39	0	0.0	H
Al (DIS) (mg/L)	< 0.009	04/23/19	O	1	0	< 0.009	< 0 .009					
Sb (TRC) (mg/L)	< 0.0005	04/23/19	O	1	0	< 0.0005	: 0 .0005					
As (TRC) (mg/L)	< 0.001	04/23/19	O	1	0	< 0.001	< 0 .001					
Ba (TRC) (mg/L)	0.019	04/23/19	O	1	1	0.019	0.019	0.019	0.019	0	0.0	H
Be (TRC) (mg/L)	< 0.0008	04/23/19	O	1	0	< 0.0008	: 0 .0008					
Cd (TRC) (mg/L)	0.00004	04/23/19	O	1	1	0.0	0.0	0.0	0	0	0.0	H
Cr (TRC) (mg/L)	< 0.01	04/23/19	O	1	0	< 0.01	< 0 .01					
Co (TRC) (mg/L)	< 0.01	04/23/19	O	1	0	< 0.01	< 0 .01					
Cu (TRC) (mg/L)	< 0.002	04/23/19	O	1	0	< 0.002	< 0 .002					
Fe (TRC) (mg/L)	0.17	04/23/19	O	1	1	0.17	0.17	0.17	0.17	0	0.0	H
Pb (TRC) (mg/L)	0.0003	04/23/19	O	1	1	0.0003	0.0003	0.0003	0.0003	0	0.0	H
Mn (TRC) (mg/L)	0.011	04/23/19	O	1	1	0.011	0.011	0.011	0.011	0	0.0	H
Hg (TRC) (ug/L)	0.01	04/23/19	O	1	1	0.01	0.01	0.01	0.01	0	0.0	H
Mo (TRC) (mg/L)	< 0.002	04/23/19	O	1	0	< 0.002	< 0 .002					
Ni (TRC) (mg/L)	< 0.001	04/23/19	O	1	0	< 0.001	< 0 .001					
Se (TRC) (mg/L)	< 0.0002	04/23/19	O	1	0	< 0.0002	: 0 .0002					
Ag (TRC) (mg/L)	< 0.0002	04/23/19	O	1	0	< 0.0002	: 0 .0002					
Sr (TRC) (mg/L)	0.0172	04/23/19	O	1	1	0.0172	0.0172	0.0172	0.0172	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Tl (TRC) (mg/L)	< 0.0002	04/23/19	O	1	0	< 0.0002	: 0 .0002					
U (TRC) (mg/L)	< 0.0002	04/23/19	O	1	0	< 0.0002	: 0 .0002					
Zn (TRC) (mg/L)	0.003	04/23/19	O	1	1	0.003	0.003	0.003	0.003	0	0.0	H

SAMPLE NO BBC-1904-111 LAB NO: H19040763-004

STATION:SP-12

PARAMETER	04/23/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	3.6	04/18/18-04/23/19	O	11	11	3.3	8.8	5.7	5.5	2.1	1.0	
pH Fld (s.u.)	7.51	04/18/18-04/23/19	O	11	11	6.76	7.95	7.49	7.53	0.34	0.04	
SC Fld (umhos/cm)	515	04/18/18-04/23/19	O	11	11	421.0	515.0	448.1	437	27	2.5	H
Flow (Gallons Per Min)	-9999	04/23/19	O	1	1	-9999.0	-9999.0	0.0	0	0	0.0	H
Water Temp (Deg C)	6.5	04/18/18-04/23/19	O	11	11	4.3	7.3	6.0	6.2	0.9	0.5	
TDS (mg/L)	341	04/18/18-04/23/19	O	12	12	234.0	341.0	253.7	248.5	28.5	3.1	*H
TSS (mg/L)	16	04/18/18-04/23/19	O	12	7	< 10	187.0	22.7	19	51.2	0.1	
Tot Alk (mg/L)	180	04/18/18-04/23/19	O	12	12	160.0	220.0	198.5	205	16.8	1.1	
Ca (mg/L)	58	04/18/18-04/23/19	O	12	12	42.0	61.0	54.5	55.5	4.7	0.7	
Cl (mg/L)	36	04/18/18-04/23/19	O	12	12	5.0	36.0	8.9	8	8.4	3.2	*H
F (mg/L)	0.2	04/18/18-04/23/19	O	12	12	0.1	0.2	0.2	0.2	0	0.0	H
Tot Hard (mg/L)	254	04/18/18-04/23/19	O	12	12	180.0	258.0	233.4	238.5	20.2	1.0	
Mg (mg/L)	26	04/18/18-04/23/19	O	12	12	18.0	26.0	23.6	24	2.2	1.1	H
K (mg/L)	5	04/18/18-04/23/19	O	12	12	1.0	13.0	1.6	1	3.5	1.0	
Na (mg/L)	4	04/18/18-04/23/19	O	12	12	2.0	4.0	2.3	2	0.7	2.4	H
SO4 (mg/L)	30	04/18/18-04/23/19	O	12	12	21.0	30.0	24.5	24.5	2.9	1.9	H
N+N (mg/L)	0.08	04/18/18-04/23/19	O	12	12	0.08	0.69	0.32	0.33	0.18	1.35	L
Al (DIS) (mg/L)	< 0.009	04/18/18-04/23/19	O	12	1	< 0.009	0.014					
Sb (DIS) (mg/L)	< 0.0005	04/18/18-04/23/19	O	12	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	0.002	04/18/18-04/23/19	O	12	1	< 0.001	0.002					
Ba (DIS) (mg/L)	0.163	04/18/18-04/23/19	O	12	12	0.128	0.192	0.173	0.176	0.017	0.586	
Be (DIS) (mg/L)	< 0.0008	04/18/18-04/23/19	O	12	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	04/18/18-04/23/19	O	12	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	04/18/18-04/23/19	O	12	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	04/18/18-04/23/19	O	12	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	04/18/18-04/23/19	O	12	1	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	0.78	04/18/18-04/23/19	O	12	5	< 0.02	0.78					
Pb (DIS) (mg/L)	< 0.0003	04/18/18-04/23/19	O	12	0	< 0.0003	: 0 .0003					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Mn (DIS) (mg/L)	0.149	04/18/18-04/23/19	O	12	1	< 0.005	0.149					
Hg (DIS) (ug/L)	0.023	04/18/18-04/23/19	O	12	2	< 0	0.023					
Mo (DIS) (mg/L)	< 0.002	04/18/18-04/23/19	O	12	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	0.002	04/18/18-04/23/19	O	12	1	< 0.001	0.002					
Se (DIS) (mg/L)	0.0002	04/18/18-04/23/19	O	12	10	0.0002	0.0003	0.0002	0.0002	0	0.0	L
Ag (DIS) (mg/L)	< 0.0002	04/18/18-04/23/19	O	12	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.112	04/18/18-04/23/19	O	12	12	0.081	0.115	0.106	0.109	0.009	0.612	
Tl (DIS) (mg/L)	< 0.0002	04/18/18-04/23/19	O	12	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0006	04/18/18-04/23/19	O	12	6	0.0003	< .008					
Zn (DIS) (mg/L)	0.005	04/18/18-04/23/19	O	12	5	< 0.002	0.005					

SAMPLE NO BBC-1904-121 LAB NO: z STATION:DS-7

04/24/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	9.86	N/A	OBS	0							
pH Fld (s.u.)	7.42	N/A	OBS	0							
SC Fld (umhos/cm)	229	N/A	OBS	0							
Flow (Gallons Per Min)	9.7	N/A	OBS	0							
Water Temp (Deg C)	4.9	N/A	OBS	0							

SAMPLE NO BBC-1904-102 LAB NO: z STATION:DS-10

04/23/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	9.92	N/A	OBS	0							
pH Fld (s.u.)	7.87	N/A	OBS	0							
SC Fld (umhos/cm)	307	N/A	OBS	0							
Flow (Gallons Per Min)	7.9	N/A	OBS	0							
Water Temp (Deg C)	3.6	N/A	OBS	0							

SAMPLE NO BBC-1904-103 LAB NO: z STATION:DS-11

04/23/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	9.94	N/A	OBS	0							
pH Fld (s.u.)	7.85	N/A	OBS	0							
SC Fld (umhos/cm)	415	N/A	OBS	0							
Flow (Gallons Per Min)	20.1	N/A	OBS	0							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Water Temp (Deg C)	4.7	N/A	OBS	0								

SAMPLE NO BBC-1904-100 LAB NO: z STATION:DS-8

PARAMETER	04/23/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	10.1	N/A	OBS	0							
pH Fld (s.u.)	7.69	N/A	OBS	0							
SC Fld (umhos/cm)	318	N/A	OBS	0							
Flow (Gallons Per Min)	8.7	N/A	OBS	0							
Water Temp (Deg C)	5.4	N/A	OBS	0							

SAMPLE NO BBC-1904-101 LAB NO: z STATION:DS-9

PARAMETER	04/23/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	9.41	N/A	OBS	0							
pH Fld (s.u.)	7.78	N/A	OBS	0							
SC Fld (umhos/cm)	328	N/A	OBS	0							
Flow (Gallons Per Min)	12.5	N/A	OBS	0							
Water Temp (Deg C)	4.3	N/A	OBS	0							

SAMPLE NO BBC-1904-105 LAB NO: z STATION:SW-19

PARAMETER	04/23/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	9.27	N/A	OBS	0							
pH Fld (s.u.)	8.03	N/A	OBS	0							
SC Fld (umhos/cm)	244	N/A	OBS	0							
Flow (Gallons Per Min)	-9999	N/A	OBS	0							
Water Temp (Deg C)	6.9	N/A	OBS	0							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

APPENDIX 2

DATABASE

Analyses Summary Report

Site Name: Black Butte Mine 5/30/2019 10:35:22 AM

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DS-1	DS-10	DS-11	DS-2
Water	Sample Date	4/24/2019	4/24/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019
	Sample Time						
	Lab	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	H19040763-012	H19040763-021	H19040763-002	z	z	z
	Sample Number	BBC-1904-126	BBC-1904-127	BBC-1904-107	BBC-1904-102	BBC-1904-103	BBC-1904-104
	Remarks						
Field Parameters	Multiple Units						
Dissolved Oxygen				8.53	9.92	9.94	
Field pH				7.81	7.87	7.85	
Field Specific Conductivity				388	307	415	
Flow							
Flow				49.8	7.9	20.1	NM
Staff Gauge							
Water Temperature				4.5	3.6	4.7	
Physical Parameters	mg/L						
Total Dissolved Solids		<10	<10	214			
Total Suspended Solids		<10	<4	<10			
Major Constituents - Commons Ions	mg/L						
Alkalinity as CaCO3		<4	<4	200			
Calcium (DIS)		<1	<1	53			
Chloride		<1	<1	<1			
Fluoride		<0.1	<0.1	0.1			
Hardness as CaCO3		<1	<1	211			
Magnesium (DIS)		<1	<1	19			
Potassium (DIS)		<1	<1	<1			
Sodium (DIS)		<1	<1	1			
Sulfate		<1	<1	14			
Nutrients	mg/L						
Nitrate + Nitrite as N		<0.01	<0.01	0.24			
Phosphorus (TOT)			<0.003				
Total Persulfate Nitrogen			<0.04				
Metals - Trace Constituents	Multiple Units						
Aluminum (DIS)		<0.009	<0.009	<0.009			
Antimony (DIS)		<0.0005		<0.0005			
Antimony (TRC)			<0.0005				
Arsenic (DIS)		<0.001		<0.001			
Arsenic (TRC)			<0.001				
Barium (DIS)		<0.003		0.045			
Barium (TRC)			<0.003				

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- J: The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DS-1	DS-10	DS-11	DS-2
Water	Sample Date	4/24/2019	4/24/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019
	Sample Time						
	Lab	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	H19040763-012	H19040763-021	H19040763-002	z	z	z
	Sample Number	BBC-1904-126	BBC-1904-127	BBC-1904-107	BBC-1904-102	BBC-1904-103	BBC-1904-104
	Remarks						
Metals - Trace Constituents	Multiple Units						
Beryllium (DIS)		<0.0008		<0.0008			
Beryllium (TRC)			<0.0008				
Cadmium (DIS)		<0.00003		<0.00003			
Cadmium (TRC)			<0.00003				
Chromium (DIS)		<0.01		<0.01			
Chromium (TRC)			<0.01				
Cobalt (DIS)		<0.01		<0.01			
Cobalt (TRC)			<0.01				
Copper (DIS)		<0.002		<0.002			
Copper (TRC)			<0.002				
Iron (DIS)		<0.02		<0.02			
Iron (TRC)			<0.02				
Lead (DIS)		<0.0003		<0.0003			
Lead (TRC)			<0.0003				
Manganese (DIS)		<0.005		<0.005			
Manganese (TRC)			<0.005				
Mercury (DIS)		<0.005		<0.005			
Mercury (TRC)			<0.005				
Molybdenum (DIS)		<0.002		<0.002			
Molybdenum (TRC)			<0.002				
Nickel (DIS)		<0.001		<0.001			
Nickel (TRC)			<0.001				
Selenium (DIS)		<0.0002		<0.0002			
Selenium (TRC)			<0.0002				
Silver (DIS)		<0.0002		<0.0002			
Silver (TRC)			<0.0002				
Strontium (DIS)		<0.0002		0.0942			
Strontium (TRC)			<0.0002				
Thallium (DIS)		<0.0002		<0.0002			
Thallium (TRC)			<0.0002				
Uranium (DIS)		<0.0002		0.0005			
Uranium (TRC)			<0.0002				
Zinc (DIS)		<0.002		0.01			

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DS-1	DS-10	DS-11	DS-2
Water	Sample Date	4/24/2019	4/24/2019	4/23/2019	4/23/2019	4/23/2019	4/23/2019
	Sample Time						
	Lab	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	H19040763-012	H19040763-021	H19040763-002	z	z	z
	Sample Number	BBC-1904-126	BBC-1904-127	BBC-1904-107	BBC-1904-102	BBC-1904-103	BBC-1904-104
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Zinc (TRC)	<0.002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DS-3	DS-4	DS-7	DS-8	DS-9	SP-10
Water	Sample Date	4/24/2019	4/24/2019	4/24/2019	4/23/2019	4/23/2019	4/23/2019
	Sample Time						
	Lab	Energy Labs	Energy Labs	Hydro	Hydro	Hydro	Energy Labs
	Lab Number	H19040763-005	H19040763-006	z	z	z	H19040763-001
	Sample Number	BBC-1904-118	BBC-1904-119	BBC-1904-121	BBC-1904-100	BBC-1904-101	BBC-1904-106
	Remarks						

Field Parameters	Multiple Units					
Dissolved Oxygen	0	9.89	9.86	10.1	9.41	10.01
Field pH	7.92	7.36	7.42	7.69	7.78	8.03
Field Specific Conductivity	32	82	229	318	328	326
Flow						
Flow	NM	NM	9.7	8.7	12.5	NM
Staff Gauge						
Water Temperature	7	5.4	4.9	5.4	4.3	5.6
Physical Parameters	mg/L					
Total Dissolved Solids	68	120				162
Total Suspended Solids	<10	<10				399 J
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	14	37				150
Calcium (DIS)	4	12				38
Chloride	<1	<1				<1
Fluoride	<0.1	<0.1				0.1
Hardness as CaCO3	14	41				147
Magnesium (DIS)	1	3				13
Potassium (DIS)	1	<1				<1
Sodium (DIS)	<1	1				1
Sulfate	1	2				6
Nutrients	mg/L					
Nitrate + Nitrite as N	0.05	0.27				0.15
Phosphorus (TOT)						
Total Persulfate Nitrogen						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	1.15	2.65				0.024
Antimony (DIS)	<0.0005	<0.0005				<0.0005
Antimony (TRC)						
Arsenic (DIS)	<0.001	0.002				<0.001
Arsenic (TRC)						
Barium (DIS)	0.161	0.32				0.03
Barium (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- J: The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DS-3	DS-4	DS-7	DS-8	DS-9	SP-10
Water	Sample Date	4/24/2019	4/24/2019	4/24/2019	4/23/2019	4/23/2019	4/23/2019
	Sample Time						
	Lab	Energy Labs	Energy Labs	Hydro	Hydro	Hydro	Energy Labs
	Lab Number	H19040763-005	H19040763-006	z	z	z	H19040763-001
	Sample Number	BBC-1904-118	BBC-1904-119	BBC-1904-121	BBC-1904-100	BBC-1904-101	BBC-1904-106
	Remarks						

Metals - Trace Constituents	Multiple Units					
Beryllium (DIS)	<0.0008	<0.0008				<0.0008
Beryllium (TRC)						
Cadmium (DIS)	<0.00003	<0.00003				<0.00003
Cadmium (TRC)						
Chromium (DIS)	<0.01	<0.01				<0.01
Chromium (TRC)						
Cobalt (DIS)	<0.01	<0.01				<0.01
Cobalt (TRC)						
Copper (DIS)	0.002	0.003				<0.002
Copper (TRC)						
Iron (DIS)	0.67	1.64				<0.02
Iron (TRC)						
Lead (DIS)	<0.0003	0.0007				<0.0003
Lead (TRC)						
Manganese (DIS)	0.006	0.011				<0.005
Manganese (TRC)						
Mercury (DIS)	0.013	0.01				<0.005
Mercury (TRC)						
Molybdenum (DIS)	<0.002	<0.002				<0.002
Molybdenum (TRC)						
Nickel (DIS)	0.002	0.003				<0.001
Nickel (TRC)						
Selenium (DIS)	<0.0002	<0.0002				<0.0002
Selenium (TRC)						
Silver (DIS)	<0.0002	<0.0002				<0.0002
Silver (TRC)						
Strontium (DIS)	0.0185	0.041				0.0748
Strontium (TRC)						
Thallium (DIS)	<0.0002	<0.0002				<0.0002
Thallium (TRC)						
Uranium (DIS)	<0.0002	<0.0002				0.0004
Uranium (TRC)						
Zinc (DIS)	0.004	0.006				<0.002

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DS-3	DS-4	DS-7	DS-8	DS-9	SP-10
Water	Sample Date	4/24/2019	4/24/2019	4/24/2019	4/23/2019	4/23/2019	4/23/2019
	Sample Time						
	Lab	Energy Labs	Energy Labs	Hydro	Hydro	Hydro	Energy Labs
	Lab Number	H19040763-005	H19040763-006	z	z	z	H19040763-001
	Sample Number	BBC-1904-118	BBC-1904-119	BBC-1904-121	BBC-1904-100	BBC-1904-101	BBC-1904-106
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-12	SP-3	SP-4	SP-6	SP-7	SP-7
Water	Sample Date	4/23/2019	4/24/2019	4/24/2019	4/24/2019	4/24/2019	4/24/2019
	Sample Time						
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19040763-004	H19040763-007	H19040763-009	H19040763-008	H19040763-010	H19040763-011
	Sample Number	BBC-1904-111	BBC-1904-120	BBC-1904-123	BBC-1904-122	BBC-1904-124	BBC-1904-125
	Remarks						DUPLICATE
Field Parameters	Multiple Units						
Dissolved Oxygen		3.6	9.92	9.8	9.62	2.7	
Field pH		7.51	7.21	7.75	7.6	7.65	
Field Specific Conductivity		515	91	442	253	330	
Flow							
Flow		NM	NM-ICE	42.2	4.12	59.7	
Staff Gauge							
Water Temperature		6.5	3.5	6.7	5.5	7.4	
Physical Parameters	mg/L						
Total Dissolved Solids		341	157	248	153	188	189
Total Suspended Solids		16 J	<10	<10	<10	<10	<10
Major Constituents - Commons Ions	mg/L						
Alkalinity as CaCO3		180	37	200	130	160	170
Calcium (DIS)		58	13	50	33	42	42
Chloride		36	1	<1	<1	2	2
Fluoride		0.2	0.1	0.2	0.1	0.3	0.3
Hardness as CaCO3		254	46	231	133	163	163
Magnesium (DIS)		26	3	26	12	14	14
Potassium (DIS)		5	2	2	1	3	3
Sodium (DIS)		4	2	2	2	4	5
Sulfate		30	4	39	7	11	11
Nutrients	mg/L						
Nitrate + Nitrite as N		0.08	0.14	0.25	0.65	0.32	0.32
Phosphorus (TOT)							
Total Persulfate Nitrogen							
Metals - Trace Constituents	Multiple Units						
Aluminum (DIS)		<0.009	2.18	<0.009	0.052	0.01	<0.009
Antimony (DIS)		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Antimony (TRC)							
Arsenic (DIS)		0.002	0.003	<0.001	<0.001	0.004	0.004
Arsenic (TRC)							
Barium (DIS)		0.163	0.201	0.112	0.186	0.112	0.111
Barium (TRC)							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	SP-12	SP-3	SP-4	SP-6	SP-7	SP-7
Water	Sample Date	4/23/2019	4/24/2019	4/24/2019	4/24/2019	4/24/2019	4/24/2019
	Sample Time						
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19040763-004	H19040763-007	H19040763-009	H19040763-008	H19040763-010	H19040763-011
	Sample Number	BBC-1904-111	BBC-1904-120	BBC-1904-123	BBC-1904-122	BBC-1904-124	BBC-1904-125
	Remarks						DUPLICATE
	Metals - Trace Constituents	Multiple Units					
	Beryllium (DIS)	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
	Beryllium (TRC)						
	Cadmium (DIS)	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
	Cadmium (TRC)						
	Chromium (DIS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Chromium (TRC)						
	Cobalt (DIS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Cobalt (TRC)						
	Copper (DIS)	<0.002	0.006	<0.002	<0.002	<0.002	<0.002
	Copper (TRC)						
	Iron (DIS)	0.78	1.42	<0.02	0.03	<0.02	<0.02
	Iron (TRC)						
	Lead (DIS)	<0.0003	0.0005	<0.0003	<0.0003	<0.0003	<0.0003
	Lead (TRC)						
	Manganese (DIS)	0.149	0.009	<0.005	<0.005	<0.005	<0.005
	Manganese (TRC)						
	Mercury (DIS)	0.023	0.026	<0.005	<0.005	<0.005	<0.005
	Mercury (TRC)						
	Molybdenum (DIS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	Molybdenum (TRC)						
	Nickel (DIS)	0.002	0.004	<0.001	<0.001	<0.001	<0.001
	Nickel (TRC)						
	Selenium (DIS)	0.0002	<0.0002	0.0003	<0.0002	0.0003	0.0002
	Selenium (TRC)						
	Silver (DIS)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
	Silver (TRC)						
	Strontium (DIS)	0.112	0.0398	0.0718	0.0673	0.165	0.164
	Strontium (TRC)						
	Thallium (DIS)	<0.0002	<0.0002	0.0003	0.0005	0.001	0.001
	Thallium (TRC)						
	Uranium (DIS)	0.0006	<0.0002	0.0005	0.0004	0.0009	0.0008
	Uranium (TRC)						
	Zinc (DIS)	0.005	0.006	<0.002	<0.002	<0.002	<0.002

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- J: The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-12	SP-3	SP-4	SP-6	SP-7	SP-7
Water	Sample Date	4/23/2019	4/24/2019	4/24/2019	4/24/2019	4/24/2019	4/24/2019
	Sample Time						
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19040763-004	H19040763-007	H19040763-009	H19040763-008	H19040763-010	H19040763-011
	Sample Number	BBC-1904-111	BBC-1904-120	BBC-1904-123	BBC-1904-122	BBC-1904-124	BBC-1904-125
	Remarks						DUPLICATE
Metals - Trace Constituents	Multiple Units						
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-1	SW-1	SW-14	SW-17	SW-18	SW-19
Water	Sample Date	4/24/2019	4/24/2019	4/23/2019	4/24/2019	4/23/2019	4/23/2019
	Sample Time						
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro
	Lab Number	H19040763-016	H19040763-017	H19040763-015	H19040763-018	H19040763-013	z
	Sample Number	BBC-1904-113	BBC-1904-114	BBC-1904-112	BBC-1904-115	BBC-1904-109	BBC-1904-105
	Remarks		DUPLICATE				

Field Parameters	Multiple Units					
Dissolved Oxygen	11.11		8.43	9.88	0	9.27
Field pH	7.76		7.98	7.8	8.19	8.03
Field Specific Conductivity	179		274	326	75	244
Flow	174.3		15.54	4.36		
Flow					NM	NM
Staff Gauge	1.72		1.05			
Water Temperature	1.7		10	2.9	1	6.9
Physical Parameters	mg/L					
Total Dissolved Solids	135 D	136 D	167 D	191 D	53 D	
Total Suspended Solids	<4	54 J	18 J	54 J	<4	
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	87	86	130	150	39	
Calcium (DIS)	24	25	33	38	8	
Chloride	2	2	1	7	<1	
Fluoride	<0.1	<0.1	0.1	0.1	<0.1	
Hardness as CaCO3	88	90	136	167	35	
Magnesium (DIS)	7	7	13	17	3	
Potassium (DIS)	2	2	2	2	2	
Sodium (DIS)	2	2	2	2	<1	
Sulfate	4	4	8	16	<1	
Nutrients	mg/L					
Nitrate + Nitrite as N	0.05	0.05	0.04	0.07	0.03	
Phosphorus (TOT)	0.095	0.089	0.028	0.023	0.095	
Total Persulfate Nitrogen	0.48	0.52	0.37	0.33	0.39	
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	0.409	0.332	0.029	0.012	<0.009	
Antimony (DIS)						
Antimony (TRC)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
Arsenic (DIS)						
Arsenic (TRC)	0.001	0.001	<0.001	<0.001	<0.001	
Barium (DIS)						
Barium (TRC)	0.116	0.111	0.081	0.112	0.019	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- J: The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-1	SW-1	SW-14	SW-17	SW-18	SW-19
Water	Sample Date	4/24/2019	4/24/2019	4/23/2019	4/24/2019	4/23/2019	4/23/2019
	Sample Time						
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro
	Lab Number	H19040763-016	H19040763-017	H19040763-015	H19040763-018	H19040763-013	z
	Sample Number	BBC-1904-113	BBC-1904-114	BBC-1904-112	BBC-1904-115	BBC-1904-109	BBC-1904-105
	Remarks		DUPLICATE				
Metals - Trace Constituents	Multiple Units						
	Beryllium (DIS)						
	Beryllium (TRC)	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	
	Cadmium (DIS)						
	Cadmium (TRC)	<0.00003	<0.00003	<0.00003	<0.00003	0.00004	
	Chromium (DIS)						
	Chromium (TRC)	<0.01	<0.01	<0.01	<0.01	<0.01	
	Cobalt (DIS)						
	Cobalt (TRC)	<0.01	<0.01	<0.01	<0.01	<0.01	
	Copper (DIS)						
	Copper (TRC)	0.003	0.003	<0.002	<0.002	<0.002	
	Iron (DIS)						
	Iron (TRC)	2.11 J	1.45 J	0.15 J	0.11 J	0.17 J	
	Lead (DIS)						
	Lead (TRC)	0.0013	0.0011	<0.0003	<0.0003	0.0003	
	Manganese (DIS)						
	Manganese (TRC)	0.05	0.046	<0.005	0.012	0.011	
	Mercury (DIS)						
	Mercury (TRC)	0.023	0.025	0.009	0.005	0.01	
	Molybdenum (DIS)						
	Molybdenum (TRC)	<0.002	<0.002	<0.002	<0.002	<0.002	
	Nickel (DIS)						
	Nickel (TRC)	0.004	0.003	<0.001	<0.001	<0.001	
	Selenium (DIS)						
	Selenium (TRC)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
	Silver (DIS)						
	Silver (TRC)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
	Strontium (DIS)						
	Strontium (TRC)	0.0708 D	0.0697 D	0.079 D	0.0854 D	0.0172 D	
	Thallium (DIS)						
	Thallium (TRC)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
	Uranium (DIS)						
	Uranium (TRC)	0.0003	0.0003	0.0004	0.0005	<0.0002	
	Zinc (DIS)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-1	SW-1	SW-14	SW-17	SW-18	SW-19
Water	Sample Date	4/24/2019	4/24/2019	4/23/2019	4/24/2019	4/23/2019	4/23/2019
	Sample Time						
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro
	Lab Number	H19040763-016	H19040763-017	H19040763-015	H19040763-018	H19040763-013	z
	Sample Number	BBC-1904-113	BBC-1904-114	BBC-1904-112	BBC-1904-115	BBC-1904-109	BBC-1904-105
	Remarks		DUPLICATE				
Metals - Trace Constituents	Multiple Units						
	Zinc (TRC)	0.009	0.007	<0.002	0.002	0.003	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-2	SW-3	SW-7	USGS-SC1
Water	Sample Date	4/24/2019	4/23/2019	4/23/2019	4/24/2019
	Sample Time				
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19040763-019	H19040763-014	H19040763-003	H19040763-020
	Sample Number	BBC-1904-116	BBC-1904-110	BBC-1904-108	BBC-1904-117
	Remarks				

Field Parameters	Multiple Units			
Dissolved Oxygen	11.16	9.57	8.8	11.09
Field pH	8.03	7.97	7.8	8.16
Field Specific Conductivity	178	238	344	272
Flow	93.98			NM-ICE
Flow		NM	42.2	
Staff Gauge	1.1	0.95		
Water Temperature	1.4	5.9	5.3	1.6
Physical Parameters	mg/L			
Total Dissolved Solids	128 D	149 D	192	164 D
Total Suspended Solids	<4	16 J	15 J	40 J
Major Constituents - Commons Ions	mg/L			
Alkalinity as CaCO3	85	120	180	130
Calcium (DIS)	25	27	49	38
Chloride	2	2	<1	4
Fluoride	<0.1	0.1	0.1	<0.1
Hardness as CaCO3	89	116	184	134
Magnesium (DIS)	6	12	15	9
Potassium (DIS)	1	2	<1	1
Sodium (DIS)	2	1	1	3
Sulfate	4	7	9	5
Nutrients	mg/L			
Nitrate + Nitrite as N	0.03	0.02	0.08	0.05
Phosphorus (TOT)	0.066	0.076		0.054
Total Persulfate Nitrogen	0.4	0.41		0.3
Metals - Trace Constituents	Multiple Units			
Aluminum (DIS)	0.47	0.047	0.018	0.124
Antimony (DIS)			<0.0005	
Antimony (TRC)	<0.0005	<0.0005		<0.0005
Arsenic (DIS)			<0.001	
Arsenic (TRC)	0.001	<0.001		<0.001
Barium (DIS)			0.042	
Barium (TRC)	0.106	0.115		0.072

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- J: The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-2	SW-3	SW-7	USGS-SC1
Water	Sample Date	4/24/2019	4/23/2019	4/23/2019	4/24/2019
	Sample Time				
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19040763-019	H19040763-014	H19040763-003	H19040763-020
	Sample Number	BBC-1904-116	BBC-1904-110	BBC-1904-108	BBC-1904-117
	Remarks				

Metals - Trace Constituents	Multiple Units			
Beryllium (DIS)			<0.0008	
Beryllium (TRC)	<0.0008	<0.0008		<0.0008
Cadmium (DIS)			<0.00003	
Cadmium (TRC)	<0.00003	0.00005		<0.00003
Chromium (DIS)			<0.01	
Chromium (TRC)	<0.01	<0.01		<0.01
Cobalt (DIS)			<0.01	
Cobalt (TRC)	<0.01	<0.01		<0.01
Copper (DIS)			<0.002	
Copper (TRC)	0.003	<0.002		<0.002
Iron (DIS)			<0.02	
Iron (TRC)	1.45 J	0.7 J		1.22 J
Lead (DIS)			<0.0003	
Lead (TRC)	0.0009	0.0018		0.0007
Manganese (DIS)			<0.005	
Manganese (TRC)	0.035	0.025		0.033
Mercury (DIS)			<0.005	
Mercury (TRC)	0.025	0.009		0.011
Molybdenum (DIS)			<0.002	
Molybdenum (TRC)	<0.002	<0.002		<0.002
Nickel (DIS)			<0.001	
Nickel (TRC)	0.003	<0.001		0.002
Selenium (DIS)			<0.0002	
Selenium (TRC)	<0.0002	<0.0002		<0.0002
Silver (DIS)			<0.0002	
Silver (TRC)	<0.0002	<0.0002		<0.0002
Strontium (DIS)			0.105	
Strontium (TRC)	0.0772 D	0.0665 D		0.119 D
Thallium (DIS)			<0.0002	
Thallium (TRC)	<0.0002	<0.0002		<0.0002
Uranium (DIS)			0.0004	
Uranium (TRC)	0.0003	0.0004		0.0003
Zinc (DIS)			<0.002	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-2	SW-3	SW-7	USGS-SC1
Water	Sample Date	4/24/2019	4/23/2019	4/23/2019	4/24/2019
	Sample Time				
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19040763-019	H19040763-014	H19040763-003	H19040763-020
	Sample Number	BBC-1904-116	BBC-1904-110	BBC-1904-108	BBC-1904-117
	Remarks				
Metals - Trace Constituents	Multiple Units				
	Zinc (TRC)	0.007	0.006		0.004

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

QUALITY CONTROL / QUALITY ASSURANCE
DATA VERIFICATION REPORT

BLACK BUTTE COPPER
WATER RESOURCE MONITORING

MAY 2019

Prepared by
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JULY 2019

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APPENDIX 2: DATABASE SUMMARY REPORT

GLOSSARY OF TERMS

CCB ..... Continuing Calibration Blank

CCV ..... Continuing Calibration Verification

CLP ..... Contract Laboratory Program

CRDL..... Contract Required Detection Limit

DIé é é é é Deionized Water

FAA ..... Flame Atomic Absorption

GFAA..... Graphite Furnace Atomic Absorption

HGAA ..... Hydride Generation Atomic Absorption

ICB..... Initial Calibration Blank

ICP ..... Inductively Coupled Plasma

ICV ..... Initial Calibration Verification

IDL..... Instrument Detection Limit

LCS ..... Laboratory Control Sample

MSA..... Method of Standard Additions

PB ..... Preparation Blank

PRDL ..... Project Required Detection Limit

QAPP ..... Quality Assurance Project Plan

QC..... Quality Control

RPD..... Relative Percent Difference

RSD..... Relative Standard Deviation

SOW..... Statement of Work

TDS..... Total Dissolved Solids

DATA VALIDATION REPORT

1. INTRODUCTION

This validation applies to 29 samples collected for the Black Butte Tintina surface water and groundwater monitoring program. All sampling occurred in May 2019. All samples were submitted to Energy Laboratories in Helena, Montana and were assigned Laboratory IDs: H19050915 and H19050914. The total number of samples included: 16 groundwater and surface water samples including 2 field duplicates, and 2 field deionized (DI and Rinsate) blanks and 9 field site observations.

- Validation procedures used are generally consistent with:
  (Check all that apply)
  _X_ EPA CLP National Functional Guidelines for Inorganics Data Review
  _X_ EPA CLP National Functional Guidelines for Organic Data Review
  _X__ Montana Department of Environmental Quality, Data Validation Guidelines for Evaluating Analytical Data, Hydrometrics, September 2010

2. DELIVERABLES

- All laboratory document deliverables were present as specified in the CLP-Statement of Work and/or the project contract
  _X_ Yes
  ___No

- All documentation of field procedures was provided as required
  _X_ Yes
  ___No

3. FIELD QUALITY CONTROL SAMPLES

- Field blanks
  Please note that the highest blank value associated with any particular analyte is the blank value used for the flagging process.
  DI, trip, rinsate, or any other field blanks have been carried out at the proper frequency
  _X_ Yes
  ___No

  Reported results on the field blanks are less than the contract required detection limits (CRDL) or the project required detection limits (PRDL) if project detection limits have been specified
  ____Yes
  _X_ No ï see following table

Date	Site Code	Parameter	Sample Result (mg/L)	Reporting Limit (mg/L)	Number of Flags
5/30/19	DI Blank	Iron (TRC)	0.03	<0.02	3
		Strontium (TRC)	0.0004	<0.0002	0
		Zinc (TRC)	0.002	<0.002	7

B ï Blank sample exceeded QA/QC comparison control limits.

- **NOTES**: It should be noted that the above listed analysis results exceeded the reporting limits and results were confirmed by duplicate analysis from the laboratory.

  Field duplicates have been collected at the proper frequency
  _X_ Yes
  ___No

Field duplicate relative percent differences (RPDs) were within the required control limits (25 percent or less for water matrix and 50 percent or less for soil matrix)
_X_ Yes
___No

4. LABORATORY PROCEDURES

- Laboratory Case Narrative Notes any non conformance issues with the analytical data
  ____Yes
  ____No
  _X_ NA

- Samples were received by the laboratory at the proper temperature
  _X_ Yes
  ____No

- Holding times met
  _X_ Yes
  ____No

- Consistency with project requirements
  _X_ Yes
  ____No

- Sample Conditions met at Check-in
  _X_ Yes
  ____No

- Reporting units appropriate for the associated sample matrix and methods of analysis
  _X_ Yes
  ___No

- Project specified methods were used
  _X_ Yesï see following list of methods used
  ___No

  NOTES: It should be noted that parameters were analyzed using different methods than requested; however, all methods used by the laboratory are comparable. The following methods were used during analyses: A2540D, A2540C, A2320B, E300.0, A4500-F C, A2340B, E353.2, A4500-N C, E365.1, E200.8, and E200.7.

- Detection Limits met project required detection limits (PRDL)
  _X_ Yesï see following notes
  ___No

  NOTES: It should be noted that total dissolved solids and mercury had a reporting limit increases due to sample matrix interference (D). TDS had a limit of 10 mg/l used not the requested 4 mg/l. Mercury had a limit of 0.01 ug/l used not the requested 0.005 ug/l. Strontium had the 0.0003 mg/l reporting limit was used in place of the requested 0.0002 mg/l; however, values were flagged with an L to indicate that the lowest available reporting limit was used per method used for analysis. In addition, a reporting limit of 0.01 mg/l was used for nitrate + nitrite as n as replacement of the 0.003 mg/l requested.

5. INITIAL OR CONTINUING CALIBRATION VERIFICATION RESULTS

- Initial or Continuing Calibration Verification samples were within acceptable limits
  _X_ Yes
  ___ No

6. LABORATORY BLANKS

- **PREPARATION/METHOD BLANKS**

  Preparation/Method blanks were prepared and analyzed at the required frequency
  _X_ Yes
  ___ No

  All analytes in the preparation blank were less than the CRDL (or PRDL if a project detection limit has been specified)
  _X_ Yes
  ___ No

7. MATRIX SPIKE /MATRIX SPIKE DUPLICATES (MS/MSD)

- Matrix spike samples were analyzed at the proper frequency
  _X_ Yes
  ___ No

- Matrix spike recoveries were within control limits
  ___ Yes
  _X_ No ï see following table

QC Sample ID	Parameter	% REC	Lab Flag	Lab Advisory Limits (% REC)
H19050859-002AMS3	Iron	161	S	70-130
H19050906-002-FMS	Nitrate + Nitrite as N	86	S	90-110
H19050915-005BMS3	Aluminum	137	S	70-130
H19050906-002DMS	Silver	57	S	70-130

S ï Spike recovery outside of recovery limits

- Matrix spike RPDôs were within control limits
  _X_ Yes
  ___ No

- Matrix spike duplicate samples were analyzed at the proper frequency
  _X_ Yes
  ___ No

- Matrix spike duplicate RPDôs were within control limits
  ___ Yes
  _X_ No ï see following table

QC Sample ID	Parameter	% RPD	Lab Flag	Lab Advisory Limits (%RPD)
H19050900-001ADUP	TSS	32	R	5
H19050917-008CMSD	Uranium	26	R	20

R ï Relative percent difference exceeded limits

- Matrix spike duplicate recoveries were within the laboratory specified control limits.
  ___ Yes
  _X_ No ï see following table

QC Sample ID	Parameter	% REC	Lab Flag	Lab Advisory Limits (% REC)
H19050859-002AMS3D	Iron	164	S	70-130
H19050906-002-FMSD	Nitrate + Nitrite as N	83	S	90-110
H19050915-005BMS3D	Aluminum	135	S	70-130
H19050906-002DMSD	Silver	62	S	70-130

S ï Spike recovery outside of recovery limits

8. LABORATORY CONTROL SAMPLES

- LCS Samples

Laboratory Control Samples used the correct matrix and concentrations
___Yes
___No
_X_NA

Laboratory Control Samples were prepared and analyzed at the required frequency
___Yes
___No
_X_NA

All analytes in the laboratory control samples were less than the control limits specified
_X_Yes
____No

9. DATA QUALITY OBJECTIVES

- Project data quality objectives (DQOs) met

_X_Yes
___No

Accuracy

Accuracy for this project is the degree of agreement between an analytical measurement and a reference accepted as a true value. The accuracy of a measurement system can be affected by errors introduced by field contamination, sample preservation, sample handling, sample preparation and analytical techniques. Analysis of MS/MSD samples, laboratory control spikes (LCS) or blank spikes, surrogate standards and method blanks are typically used to calculate the percent recovery for evaluating accuracy. Accuracy for this sampling event was 99 percent.

Precision

Precision for this project is the degree of mutual agreement between individual measurements of the same property under similar conditions. Combined field and laboratory precision is evaluated by collecting and analyzing field duplicate and then calculating the variance between the samples, typically as a relative percent difference (RPD). Laboratory analytical precision is evaluated by analyzing matrix spike/matrix spike duplicate samples and using the results to calculate an RPD. The combined precision was 98 percent for this sampling event for both laboratory and field.

Representativeness

Representativeness for this project is the degree to which sample data accurately and precisely represent the characteristics of a population, and variations in a parameter at a sampling point or an environmental condition that they are intended to represent. Typically representative data will be obtained through careful selection of sampling locations and analytical parameters; proper collection and handling of samples and through use and consistent application of established field and laboratory procedures. Evaluation of field and laboratory blank samples for presence of contaminants can be useful in evaluating representativeness of sample results. Both laboratory and field representativeness for this sampling event was 100 percent.

Completeness

The target completeness for this project is the percent of the measurements valid (not rejected). Valid data are obtained when samples are collected and analyzed in accordance with quality control procedures outlined in the SAP, and when none of the QC criteria that affect data usability are exceeded. Once data validation is complete the number of useable sample results is divided by the total number of sample results planned for the investigation to determine the percent completeness. Completeness for this sampling event was 100 percent.

Comparability

Comparability is the expression of the confidence with which one data set can be compared with another. Comparability of data is achieved by consistently following standard field and laboratory procedures and by using standard measurement units in reporting analytical data. This criterion was met.

REFERENCES

Montana Department of Environmental Quality, Data Validation Guidelines for Evaluating Analytical Data (Updated August 5, 2010)

EPA, 2017a. National Functional Guidelines for Organic Superfund Methods Data Review. EPA-540-R-2017-002. Office of Superfund Remediation and Technology Innovation. January 2017.

EPA, 2017b. National Functional Guidelines for Inorganic Superfund Methods Data Review. EPA-540-R-2017-001. Office of Superfund Remediation and Technology Innovation. January 2017.

Hem, J.D., 1992. Study and Interpretation of the Chemical Characteristics of Natural Water, 3rd edition. US Geological Survey Water Supply Paper 2254.

APPENDIX 1

TABLES

TABLE 1.

DATA VALIDATION CODES AND DEFINITIONS

CODE	DEFINITION
J	-The associated numerical value is an estimated quantity because quality control criteria were not met.
B	- Blank contamination. Indicates possible high bias and / or false positive. The associated value is an estimate.
R	- Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis is necessary for verification.
A	- Anomalous data. No apparent explanation for discrepancy in data. (Not an EPA code.)

Table 2. Summary of Flagged Data

StationName	Sample Date	Field Sample Id	Lab Name	Lab Sample Id	Parameter Name	Sample Result	Reporting Units	Validation Flag	Exceedance Type
SW-1	5/30/2019	BBC-1905-115	Energy Labs	H19050914-001	Zinc (TRC)	0.002	mg/L	B	Blank Exceedance
SW-14	5/30/2019	BBC-1905-117	Energy Labs	H19050914-003	Iron (TRC)	0.06	mg/L	B	Blank Exceedance
SW-14	5/30/2019	BBC-1905-117	Energy Labs	H19050914-003	Zinc (TRC)	<0.002	mg/L	B	Blank Exceedance
SW-14	5/30/2019	BBC-1905-118	Energy Labs	H19050914-004	Iron (TRC)	0.06	mg/L	B	Blank Exceedance
SW-14	5/30/2019	BBC-1905-118	Energy Labs	H19050914-004	Zinc (TRC)	<0.002	mg/L	B	Blank Exceedance
SW-17	5/30/2019	BBC-1905-116	Energy Labs	H19050914-002	Zinc (TRC)	<0.002	mg/L	B	Blank Exceedance
SW-2	5/30/2019	BBC-1905-119	Energy Labs	H19050914-005	Zinc (TRC)	0.004	mg/L	B	Blank Exceedance
SW-3	5/30/2019	BBC-1905-121	Energy Labs	H19050914-007	Iron (TRC)	0.03	mg/L	B	Blank Exceedance
SW-3	5/30/2019	BBC-1905-121	Energy Labs	H19050914-007	Zinc (TRC)	<0.002	mg/L	B	Blank Exceedance
USGS-SC1	5/30/2019	BBC-1905-120	Energy Labs	H19050914-006	Zinc (TRC)	0.002	mg/L	B	Blank Exceedance

Black Butte Mine Data Comparison Summary

Report Date: July 15, 2019

SAMPLE NO BBC-1905-107	LAB NO: H19050915-002	STATION:DS-1

PARAMETER	05/29/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	916	03/25/15-05/29/19	O	31	31	8.2	916.0	11.2	9.5	149	6.1	*H
pH Fld (s.u.)	7.82	03/25/15-05/29/19	O	30	30	7.36	8.56	7.77	7.78	0.28	0.17	
SC Fld (umhos/cm)	421	03/25/15-05/29/19	O	31	31	337.0	698.7	420.6	420	51.4	0.0	
Flow (Gallons Per Min)	50.9	03/25/15-05/29/19	O	27	27	0.1	62.3	5.5	6.3	13.5	3.4	*
Water Temp (Deg C)	8.3	03/25/15-05/29/19	O	31	31	0.5	18.3	5.4	7	3.7	0.8	
TDS (mg/L)	217	03/25/15-05/29/19	DUP	31	31	203.0	245.0	230.5	231	9.6	1.4	
TDS (mg/L)	221	03/25/15-05/29/19	O	31	31	203.0	245.0	230.5	231	9.6	1.0	
TSS (mg/L)	< 10	03/25/15-05/29/19	DUP	31	10	< 10	1130.0					
TSS (mg/L)	< 10	03/25/15-05/29/19	O	31	10	< 10	1130.0					
Tot Alk (mg/L)	220	03/25/15-05/29/19	O	31	31	180.0	220.0	215.0	220	8.1	0.6	H
Tot Alk (mg/L)	220	03/25/15-05/29/19	DUP	31	31	180.0	220.0	215.0	220	8.1	0.6	H
Ca (mg/L)	55	05/29/19	O	1	1	55.0	55.0	55.0	55	1.4	0.0	H
Ca (mg/L)	57	05/29/19	DUP	1	1	55.0	55.0	55.0	55	1.4	1.4	H
Chloride (mg/L)	< 1	03/25/15-05/29/19	O	31	0	< 1	< 1					
Chloride (mg/L)	< 1	03/25/15-05/29/19	DUP	31	0	< 1	< 1					
F (mg/L)	0.1	03/25/15-05/29/19	O	31	29	< 0.1	< 0 .1	0.1	0.1	0	0.0	H
F (mg/L)	0.1	03/25/15-05/29/19	DUP	31	29	< 0.1	< 0 .1	0.1	0.1	0	0.0	H
Tot Hard (mg/L)	226	03/25/15-05/29/19	DUP	31	31	185.0	249.0	228.3	229	11.5	0.2	
Tot Hard (mg/L)	220	03/25/15-05/29/19	O	31	31	185.0	249.0	228.3	229	11.5	0.7	
Mg (mg/L)	20	05/29/19	O	1	1	20.0	20.0	20.0	20	0	0.0	H
Mg (mg/L)	20	05/29/19	DUP	1	1	20.0	20.0	20.0	20	0	0.0	H
K (mg/L)	< 1	05/29/19	O	1	0	< 1	< 1					
K (mg/L)	< 1	05/29/19	DUP	1	0	< 1	< 1					
Na (mg/L)	2	05/29/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
Na (mg/L)	2	05/29/19	DUP	1	1	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	15	03/25/15-05/29/19	O	31	31	11.0	18.0	14.7	15	1.7	0.2	
SO4 (mg/L)	15	03/25/15-05/29/19	DUP	31	31	11.0	18.0	14.7	15	1.7	0.2	
Nitrate + (mg/L)	0.13	03/25/15-05/29/19	O	31	31	0.03	0.26	0.17	0.19	0.06	0.73	
Nitrate + (mg/L)	0.13	03/25/15-05/29/19	DUP	31	31	0.03	0.26	0.17	0.19	0.06	0.73	
Al (DIS) (mg/L)	< 0.009	05/29/19	O	1	0	< 0.009	< 0 .009					
Al (DIS) (mg/L)	< 0.009	05/29/19	DUP	1	0	< 0.009	< 0 .009					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Sb (DIS) (mg/L)	< 0.0005	05/29/19	DUP	1	0	< 0.0005	: 0 .0005					
Sb (DIS) (mg/L)	< 0.0005	05/29/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	05/29/19	O	1	0	< 0.001	< 0 .001					
As (DIS) (mg/L)	< 0.001	05/29/19	DUP	1	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.05	05/29/19	O	1	1	0.05	0.05	0.05	0.05	0	0.0	H
Ba (DIS) (mg/L)	0.051	05/29/19	DUP	1	1	0.05	0.05	0.05	0.05	0.001	1.0	H
Be (DIS) (mg/L)	< 0.0008	05/29/19	O	1	0	< 0.0008	: 0 .0008					
Be (DIS) (mg/L)	< 0.0008	05/29/19	DUP	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	05/29/19	DUP	1	0	< 0	: .00003					
Cd (DIS) (mg/L)	< 0	05/29/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	05/29/19	DUP	1	0	< 0.01	< 0 .01					
Cr (DIS) (mg/L)	< 0.01	05/29/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	05/29/19	DUP	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	05/29/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	05/29/19	DUP	1	0	< 0.002	< 0 .002					
Cu (DIS) (mg/L)	< 0.002	05/29/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	05/29/19	O	1	0	< 0.02	< 0 .02					
Fe (DIS) (mg/L)	< 0.02	05/29/19	DUP	1	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	05/29/19	O	1	0	< 0.0003	: 0 .0003					
Pb (DIS) (mg/L)	< 0.0003	05/29/19	DUP	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	05/29/19	DUP	1	0	< 0.005	< 0 .005					
Mn (DIS) (mg/L)	< 0.005	05/29/19	O	1	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	05/29/19	DUP	1	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	05/29/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	05/29/19	DUP	1	0	< 0.002	< 0 .002					
Mo (DIS) (mg/L)	< 0.002	05/29/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	05/29/19	DUP	1	0	< 0.001	< 0 .001					
Ni (DIS) (mg/L)	< 0.001	05/29/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	05/29/19	DUP	1	0	< 0.0002	: 0 .0002					
Se (DIS) (mg/L)	< 0.0002	05/29/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	05/29/19	DUP	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	05/29/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.106	05/29/19	DUP	1	1	0.105	0.105	0.105	0.105	0.001	1.0	H
Sr (DIS) (mg/L)	0.105	05/29/19	O	1	1	0.105	0.105	0.105	0.105	0.001	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Tl (DIS) (mg/L)	< 0.0002	05/29/19	DUP	1	0	< 0.0002	: 0 .0002					
Tl (DIS) (mg/L)	< 0.0002	05/29/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0006	05/29/19	DUP	1	1	0.0006	0.0006	0.0006	0.0006	0	0.0	H
U (DIS) (mg/L)	0.0006	05/29/19	O	1	1	0.0006	0.0006	0.0006	0.0006	0	0.0	H
Zn (DIS) (mg/L)	0.009	05/29/19	O	1	1	0.009	0.009	0.009	0.009	0	0.0	H
Zn (DIS) (mg/L)	0.009	05/29/19	DUP	1	1	0.009	0.009	0.009	0.009	0	0.0	H

SAMPLE NO BBC-1905-105 LAB NO: z | STATION:DS-2

05/29/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	9.9	10/12/11-08/19/14	OBS	2	2	4.3	9.5	6.4	6.9	2.4	1.5	H
pH Fld (s.u.)	7.61	10/12/11-08/19/14	OBS	2	2	6.45	7.9	7.14	7.18	0.56	0.84	
SC Fld (umhos/cm)	193	10/12/11-08/19/14	OBS	2	2	331.0	354.0	342.3	342.5	76.8	1.9	L
Flow (Gallons Per Min)	3.9	10/12/11-08/19/14	OBS	2	2	0.3	0.8	0.4	0.5	2.3	1.5	H
Water Temp (Deg C)	8	10/12/11-08/19/14	OBS	2	2	5.7	13.3	8.7	9.5	4.4	0.2	

SAMPLE NO BBC-1905-112 LAB NO: H19050915-005 | STATION:DS-3

05/29/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	7.24	08/06/14-05/29/19	O	29	29	3.72	10.8	6.68	7.04	2.26	0.25	
pH Fld (s.u.)	6.89	08/06/14-05/29/19	O	29	29	5.56	8.7	7.0	7.16	0.96	0.11	
SC Fld (umhos/cm)	40	08/06/14-05/29/19	O	29	29	40.0	132.0	57.3	56	19.3	0.9	L
Flow (Gallons Per Min)	12.1	08/06/14-05/29/19	O	25	25	0.5	159.0	4.2	5.8	22	0.4	
Water Temp (Deg C)	4.7	08/06/14-05/29/19	O	29	29	3.8	15.1	8.2	9.2	3	1.2	
TDS (mg/L)	64	08/06/14-05/29/19	O	29	29	47.0	128.0	70.4	66	22.9	0.3	
TSS (mg/L)	< 10	08/06/14-05/29/19	O	29	4	< 4	95.0					
Tot Alk (mg/L)	18	08/06/14-05/29/19	O	29	29	17.0	29.0	22.2	23	2.8	1.5	
Ca (mg/L)	5	05/29/19	O	1	1	5.0	5.0	5.0	5	0	0.0	H
Chloride (mg/L)	< 1	08/06/14-05/29/19	O	29	3	< 1	< 1					
F (mg/L)	< 0.1	08/06/14-05/29/19	O	29	2	0.0	< .1					
Tot Hard (mg/L)	19	08/06/14-05/29/19	O	29	29	19.0	26.0	22.8	23	1.7	2.2	L
Mg (mg/L)	1	05/29/19	O	1	1	1.0	1.0	1.0	1	0	0.0	H
K (mg/L)	< 1	05/29/19	O	1	0	< 1	< 1					
Na (mg/L)	1	05/29/19	O	1	1	1.0	1.0	1.0	1	0	0.0	H
SO4 (mg/L)	1	08/06/14-05/29/19	O	29	29	1.0	2.0	1.3	1	0.4	0.7	L
Nitrate + (mg/L)	0.11	08/06/14-05/29/19	O	29	29	0.11	0.48	0.27	0.29	0.09	1.79	L

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Al (DIS) (mg/L)	2	05/29/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
Sb (DIS) (mg/L)	< 0.0005	05/29/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	05/29/19	O	1	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.229	05/29/19	O	1	1	0.229	0.229	0.229	0.229	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	05/29/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	05/29/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	05/29/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	05/29/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	0.004	05/29/19	O	1	1	0.004	0.004	0.004	0.004	0	0.0	H
Fe (DIS) (mg/L)	1.2	05/29/19	O	1	1	1.2	1.2	1.2	1.2	0	0.0	H
Pb (DIS) (mg/L)	0.0003	05/29/19	O	1	1	0.0003	0.0003	0.0003	0.0003	0	0.0	H
Mn (DIS) (mg/L)	0.008	05/29/19	O	1	1	0.008	0.008	0.008	0.008	0	0.0	H
Hg (DIS) (ug/L)	0.02	05/29/19	O	1	1	0.02	0.02	0.02	0.02	0	0.0	H
Mo (DIS) (mg/L)	< 0.002	05/29/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	0.004	05/29/19	O	1	1	0.004	0.004	0.004	0.004	0	0.0	H
Se (DIS) (mg/L)	< 0.0002	05/29/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	05/29/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.0231	05/29/19	O	1	1	0.0231	0.0231	0.0231	0.0231	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	05/29/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	< 0.0002	05/29/19	O	1	0	< 0.0002	: 0 .0002					
Zn (DIS) (mg/L)	0.006	05/29/19	O	1	1	0.006	0.006	0.006	0.006	0	0.0	H

SAMPLE NO BBC-1905-113 LAB NO: H19050915-006

STATION:DS-4

05/29/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	8.78	10/13/11-05/29/19	O	26	26	2.45	11.98	7.25	7.74	2.05	0.75	
pH Fld (s.u.)	6.58	10/13/11-05/29/19	O	25	25	5.86	8.83	7.18	7.34	0.72	0.84	
SC Fld (umhos/cm)	92	10/13/11-05/29/19	O	26	26	73.0	203.0	102.0	99.5	27.4	0.4	
Flow (Gallons Per Min)	-9999	10/13/11-05/29/19	O	11	9	-9999.0	7.5	1.0	2.2	3.5	2857.2	*L
Water Temp (Deg C)	5.9	10/13/11-05/29/19	O	26	26	0.2	20.2	7.3	8.5	4.3	0.3	
TDS (mg/L)	90	10/13/11-05/29/19	O	26	26	60.0	143.0	93.4	90.5	19.1	0.2	
TSS (mg/L)	62	08/06/14-05/29/19	O	25	14	< 10	868.0	35.3	32	186.2	0.1	
Tot Alk (mg/L)	41	10/13/11-05/29/19	O	26	26	36.0	84.0	46.4	45.5	10.4	0.5	
Ca (mg/L)	13	05/29/19	O	1	1	13.0	13.0	13.0	13	0	0.0	H
Chloride (mg/L)	< 1	10/13/11-05/29/19	O	26	4	< 1	2.0					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

F (mg/L)	< 0.1	10/13/11-05/29/19	O	26	10	0.1	< .1					
Tot Hard (mg/L)	43	10/13/11-05/29/19	O	26	26	38.0	71.0	47.3	47	7	0.6	
Mg (mg/L)	3	05/29/19	O	1	1	3.0	3.0	3.0	3	0	0.0	H
K (mg/L)	< 1	05/29/19	O	1	0	< 1	< 1					
Na (mg/L)	1	05/29/19	O	1	1	1.0	1.0	1.0	1	0	0.0	H
SO4 (mg/L)	3	10/13/11-05/29/19	O	26	25	1.0	4.0	2.1	2	0.7	1.2	
Nitrate + (mg/L)	0.24	10/13/11-05/29/19	O	26	21	< 0.01	0.47	0.11	0.25	0.16	0.81	
Al (DIS) (mg/L)	1.35	05/29/19	O	1	1	1.35	1.35	1.35	1.35	0	0.0	H
Sb (DIS) (mg/L)	< 0.0005	05/29/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	0.001	05/29/19	O	1	1	0.001	0.001	0.001	0.001	0	0.0	H
Ba (DIS) (mg/L)	0.327	05/29/19	O	1	1	0.327	0.327	0.327	0.327	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	05/29/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	05/29/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	05/29/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	05/29/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	0.002	05/29/19	O	1	1	0.002	0.002	0.002	0.002	0	0.0	H
Fe (DIS) (mg/L)	0.82	05/29/19	O	1	1	0.82	0.82	0.82	0.82	0	0.0	H
Pb (DIS) (mg/L)	< 0.0003	05/29/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	0.005	05/29/19	O	1	1	0.005	0.005	0.005	0.005	0	0.0	H
Hg (DIS) (ug/L)	0.008	05/29/19	O	1	1	0.008	0.008	0.008	0.008	0	0.0	H
Mo (DIS) (mg/L)	< 0.002	05/29/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	0.002	05/29/19	O	1	1	0.002	0.002	0.002	0.002	0	0.0	H
Se (DIS) (mg/L)	< 0.0002	05/29/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	05/29/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.0425	05/29/19	O	1	1	0.0425	0.0425	0.0425	0.0425	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	05/29/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	< 0.0002	05/29/19	O	1	0	< 0.0002	: 0 .0002					
Zn (DIS) (mg/L)	0.004	05/29/19	O	1	1	0.004	0.004	0.004	0.004	0	0.0	H

SAMPLE NO BBC-1905-106 LAB NO: H19050915-001

STATION:SP-10

05/29/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	8.88	05/23/18-05/29/19	O	9	9	6.76	8.93	8.04	8.06	1.09	0.77
pH Fld (s.u.)	7.98	05/23/18-05/29/19	O	9	9	6.92	8.09	7.56	7.55	0.32	1.32
SC Fld (umhos/cm)	372	05/23/18-05/29/19	O	9	9	305.0	434.0	393.7	419	34.5	0.6

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Flow (Gallons Per Min)	54.8	05/23/18-05/29/19	O	8	8	0.6	59.7	6.0	6.6	18.7	2.6	
Water Temp (Deg C)	10.1	05/23/18-05/29/19	O	9	9	4.6	10.1	7.1	7.4	2.3	1.3	H
TDS (mg/L)	196	05/23/18-05/29/19	O	9	9	196.0	234.0	221.2	229	14.5	1.7	L
TSS (mg/L)	< 10	05/23/18-05/29/19	O	9	3	< 10	68.0					
Tot Alk (mg/L)	200	05/23/18-05/29/19	O	9	9	180.0	220.0	209.6	220	13.7	0.7	
Ca (mg/L)	51	05/29/19	O	1	1	51.0	51.0	51.0	51	0	0.0	H
Chloride (mg/L)	< 1	05/23/18-05/29/19	O	9	0	< 1	< 1					
F (mg/L)	0.1	05/23/18-05/29/19	O	9	9	0.1	0.1	0.1	0.1	0	0.0	H
Tot Hard (mg/L)	202	05/23/18-05/29/19	O	9	9	193.0	245.0	221.9	220	16.8	1.2	
Mg (mg/L)	18	05/29/19	O	1	1	18.0	18.0	18.0	18	0	0.0	H
K (mg/L)	< 1	05/29/19	O	1	0	< 1	< 1					
Na (mg/L)	1	05/29/19	O	1	1	1.0	1.0	1.0	1	0	0.0	H
SO4 (mg/L)	11	05/23/18-05/29/19	O	9	9	8.0	17.0	13.0	14	3.2	0.6	
Nitrate + (mg/L)	0.06	05/23/18-05/29/19	O	9	9	0.06	0.28	0.19	0.24	0.06	2.21	L
Al (DIS) (mg/L)	< 0.009	05/29/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	05/29/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	05/29/19	O	1	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.046	05/29/19	O	1	1	0.046	0.046	0.046	0.046	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	05/29/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	05/29/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	05/29/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	05/29/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	05/29/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	05/29/19	O	1	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	05/29/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	05/29/19	O	1	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	05/29/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	05/29/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	05/29/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	05/29/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	05/29/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.102	05/29/19	O	1	1	0.102	0.102	0.102	0.102	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	05/29/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0007	05/29/19	O	1	1	0.0007	0.0007	0.0007	0.0007	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Zn (DIS) (mg/L)	< 0.002	05/29/19	O	1	0	< 0.002	< 0 .002						

SAMPLE NO BBC-1905-114 LAB NO: H19050915-007

STATION:SP-3

PARAMETER	05/29/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	9.39	07/20/11-05/29/19	O	28	28	5.41	19.38	9.53	9.58	2.22	0.06	
pH Fld (s.u.)	7.16	07/20/11-05/29/19	O	27	27	6.2	8.66	7.35	7.42	0.57	0.34	
SC Fld (umhos/cm)	111	07/20/11-05/29/19	O	28	28	103.0	223.0	162.7	177.5	38.9	1.3	
Flow (Gallons Per Min)	8.1	07/20/11-05/29/19	O	26	25	< 0	8.1	0.6	0.6	1.9	3.9	*H
Water Temp (Deg C)	5.4	07/20/11-05/29/19	O	28	28	1.7	15.8	6.7	7.6	3.7	0.3	
TDS (mg/L)	119	07/20/11-05/29/19	O	28	28	119.0	214.0	141.1	135	21.7	1.0	L
TSS (mg/L)	< 10	08/28/13-05/29/19	O	26	15	< 10	191.0	24.6	14	119	0.1	L
Tot Alk (mg/L)	48	07/20/11-05/29/19	O	28	28	44.0	100.0	75.3	83.5	20.4	1.3	
Ca (mg/L)	17	05/29/19	O	1	1	17.0	17.0	17.0	17	0	0.0	H
Chloride (mg/L)	1	07/20/11-05/29/19	O	28	4	< 1	2.0					
F (mg/L)	0.1	07/20/11-05/29/19	O	28	28	0.1	0.1	0.1	0.1	0	0.0	H
Tot Hard (mg/L)	57	07/20/11-05/29/19	O	28	28	48.0	109.0	79.5	86	18.5	1.2	
Mg (mg/L)	4	05/29/19	O	1	1	4.0	4.0	4.0	4	0	0.0	H
K (mg/L)	1	05/29/19	O	1	1	1.0	1.0	1.0	1	0	0.0	H
Na (mg/L)	2	05/29/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	7	07/20/11-05/29/19	O	28	28	3.0	7.0	5.1	5.2	1.2	1.6	H
Nitrate + (mg/L)	0.1	07/20/11-05/29/19	O	28	28	0.1	0.4	0.3	0.3	0.1	1.8	L
Al (DIS) (mg/L)	1.2	05/29/19	O	1	1	1.2	1.2	1.2	1.2	0	0.0	H
Sb (DIS) (mg/L)	< 0.0005	05/29/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	0.002	05/29/19	O	1	1	0.002	0.002	0.002	0.002	0	0.0	H
Ba (DIS) (mg/L)	0.214	05/29/19	O	1	1	0.214	0.214	0.214	0.214	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	05/29/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	0.00003	05/29/19	O	1	1	0.0	0.0	0.0	0	0	0.0	H
Cr (DIS) (mg/L)	< 0.01	05/29/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	05/29/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	0.004	05/29/19	O	1	1	0.004	0.004	0.004	0.004	0	0.0	H
Fe (DIS) (mg/L)	0.81	05/29/19	O	1	1	0.81	0.81	0.81	0.81	0	0.0	H
Pb (DIS) (mg/L)	0.0003	05/29/19	O	1	1	0.0003	0.0003	0.0003	0.0003	0	0.0	H
Mn (DIS) (mg/L)	0.005	05/29/19	O	1	1	0.005	0.005	0.005	0.005	0	0.0	H
Hg (DIS) (ug/L)	0.02	05/29/19	O	1	1	0.02	0.02	0.02	0.02	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Mo (DIS) (mg/L)	< 0.002	05/29/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	0.003	05/29/19	O	1	1	0.003	0.003	0.003	0.003	0	0.0	H
Se (DIS) (mg/L)	< 0.0002	05/29/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	05/29/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.0473	05/29/19	O	1	1	0.0473	0.0473	0.0473	0.0473	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	05/29/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	< 0.0002	05/29/19	O	1	0	< 0.0002	: 0 .0002					
Zn (DIS) (mg/L)	0.004	05/29/19	O	1	1	0.004	0.004	0.004	0.004	0	0.0	H

SAMPLE NO BBC-1905-124 LAB NO: H19050915-009

STATION:SP-4

05/30/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	11.12	07/21/11-05/30/19	O	50	50	6.7	13.95	9.85	9.71	1.38	0.92	
pH Fld (s.u.)	7.84	07/21/11-05/30/19	O	49	49	6.95	8.63	7.69	7.71	0.29	0.5	
SC Fld (umhos/cm)	430	07/21/11-05/30/19	O	50	50	162.0	481.0	420.3	433	46.8	0.2	
Flow (Gallons Per Min)	34.56	07/21/11-05/30/19	O	42	42	0.0	50.27	3.02	5.39	10.11	3.12	*
Water Temp (Deg C)	7.8	07/21/11-05/30/19	O	49	49	0.1	12.2	5.6	6.5	2.2	1.0	
TDS (mg/L)	235	07/21/11-05/30/19	O	51	51	202.0	272.0	247.1	250	13.9	0.9	
TSS (mg/L)	< 10	08/28/13-05/30/19	O	48	30	5.0	890.0	21.3	13.5	125.7	0.1	
Tot Alk (mg/L)	200	07/21/11-05/30/19	O	51	51	190.0	210.0	201.1	200	4.5	0.2	
Ca (mg/L)	46	05/30/19	O	1	1	46.0	46.0	46.0	46	0	0.0	H
Chloride (mg/L)	< 1	07/21/11-05/30/19	O	51	14	1.0	1.0					
F (mg/L)	0.2	07/21/11-05/30/19	O	51	51	0.2	0.3	0.2	0.2	0	0.0	L
Tot Hard (mg/L)	214	07/21/11-05/30/19	O	50	50	208.0	255.0	236.2	238	11.4	1.9	
Mg (mg/L)	24	05/30/19	O	1	1	24.0	24.0	24.0	24	0	0.0	H
K (mg/L)	2	05/30/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
Na (mg/L)	2	05/30/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	34	07/21/11-05/30/19	O	51	51	10.0	45.0	35.3	38	6.6	0.2	
Nitrate + (mg/L)	0.24	07/21/11-05/30/19	O	51	51	0.18	0.35	0.25	0.25	0.03	0.33	
Al (DIS) (mg/L)	< 0.009	05/30/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	05/30/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	05/30/19	O	1	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.108	05/30/19	O	1	1	0.108	0.108	0.108	0.108	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	05/30/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	05/30/19	O	1	0	< 0	: .00003					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Cr (DIS) (mg/L)	< 0.01	05/30/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	05/30/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	05/30/19	O	1	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	05/30/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	05/30/19	O	1	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	05/30/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	05/30/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	0.0003	05/30/19	O	1	1	0.0003	0.0003	0.0003	0.0003	0	0.0	H
Ag (DIS) (mg/L)	< 0.0002	05/30/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.0698	05/30/19	O	1	1	0.0698	0.0698	0.0698	0.0698	0	0.0	H
Tl (DIS) (mg/L)	0.0003	05/30/19	O	1	1	0.0003	0.0003	0.0003	0.0003	0	0.0	H
U (DIS) (mg/L)	0.0004	05/30/19	O	1	1	0.0004	0.0004	0.0004	0.0004	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1905-123 LAB NO: H19050915-008

STATION:SP-6

05/30/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	11.61	10/12/11-05/30/19	O	43	43	6.7	282.0	10.6	9.75	40.6	0.02	
pH Fld (s.u.)	7.96	10/12/11-05/30/19	O	42	42	5.81	8.72	7.31	7.44	0.66	0.98	
SC Fld (umhos/cm)	248	10/12/11-05/30/19	O	43	43	241.0	327.0	268.6	269	14.9	1.4	
Flow (Gallons Per Min)	3.5	10/12/11-05/30/19	O	41	33	0.3	3.5	1.0	1	0.9	2.7	H
Water Temp (Deg C)	6.8	10/12/11-05/30/19	O	42	42	4.4	10.3	7.2	7.6	1.4	0.3	
TDS (mg/L)	149	10/12/11-05/30/19	O	43	43	145.0	188.0	160.9	160	8.1	1.5	
TSS (mg/L)	< 10	08/28/13-05/30/19	O	41	13	< 4	216.0					
Tot Alk (mg/L)	130	10/12/11-05/30/19	O	43	43	120.0	160.0	134.5	130	6.9	0.6	
Ca (mg/L)	32	05/30/19	O	1	1	32.0	32.0	32.0	32	0	0.0	H
Chloride (mg/L)	< 1	10/12/11-05/30/19	O	43	10	1.0	2.0					
F (mg/L)	0.1	10/12/11-05/30/19	O	43	43	0.1	0.2	0.2	0.2	0	0.0	L
Tot Hard (mg/L)	129	10/12/11-05/30/19	O	43	43	129.0	160.0	140.5	141	6.7	1.7	L
Mg (mg/L)	12	05/30/19	O	1	1	12.0	12.0	12.0	12	0	0.0	H
K (mg/L)	< 1	05/30/19	O	1	0	< 1	< 1					
Na (mg/L)	2	05/30/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	10	10/12/11-05/30/19	O	43	43	7.0	12.0	9.0	9.3	1.6	0.7	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Nitrate + (mg/L)	0.41	10/12/11-05/30/19	O	43	43	0.31	0.68	0.38	0.37	0.07	0.36	
Al (DIS) (mg/L)	< 0.009	05/30/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	05/30/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	05/30/19	O	1	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.185	05/30/19	O	1	1	0.185	0.185	0.185	0.185	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	05/30/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	05/30/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	05/30/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	05/30/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	05/30/19	O	1	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	05/30/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	05/30/19	O	1	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	05/30/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	05/30/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	05/30/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	05/30/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.0697	05/30/19	O	1	1	0.0697	0.0697	0.0697	0.0697	0	0.0	H
Tl (DIS) (mg/L)	0.0004	05/30/19	O	1	1	0.0004	0.0004	0.0004	0.0004	0	0.0	H
U (DIS) (mg/L)	0.0004	05/30/19	O	1	1	0.0004	0.0004	0.0004	0.0004	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1905-126 LAB NO: H19050915-011

STATION:SP-7

05/30/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	4.08	03/26/15-05/30/19	O	47	47	2.3	10.98	3.76	3.58	1.6	0.2	
pH Fld (s.u.)	7.36	03/26/15-05/30/19	O	46	46	6.17	8.18	7.38	7.38	0.33	0.07	
SC Fld (umhos/cm)	334	03/26/15-05/30/19	O	47	47	196.0	354.0	320.6	330	28.7	0.5	
Flow (Gallons Per Min)	19.7	03/26/15-05/30/19	O	40	40	6.7	136.0	18.1	15.3	25.3	0.1	
Water Temp (Deg C)	7	03/26/15-05/30/19	O	46	46	5.1	7.4	6.5	6.7	0.6	0.8	
TDS (mg/L)	180	03/26/15-05/30/19	O	47	47	173.0	200.0	186.9	187	6.8	1.0	
TSS (mg/L)	< 10	03/26/15-05/30/19	O	47	7	< 4	146.0					
Tot Alk (mg/L)	170	03/26/15-05/30/19	O	47	47	160.0	170.0	166.3	170	4.7	0.8	H
Ca (mg/L)	41	05/30/19	O	1	1	41.0	41.0	41.0	41	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Chloride (mg/L)	2	03/26/15-05/30/19	O	47	47	1.0	2.0	1.7	2	0.3	0.8	H
F (mg/L)	0.3	03/26/15-05/30/19	O	47	47	0.3	0.4	0.3	0.3	0	0.0	L
Tot Hard (mg/L)	161	03/26/15-05/30/19	O	47	47	153.0	178.0	167.8	168	5.5	1.2	
Mg (mg/L)	14	05/30/19	O	1	1	14.0	14.0	14.0	14	0	0.0	H
K (mg/L)	3	05/30/19	O	1	1	3.0	3.0	3.0	3	0	0.0	H
Na (mg/L)	5	05/30/19	O	1	1	5.0	5.0	5.0	5	0	0.0	H
SO4 (mg/L)	12	03/26/15-05/30/19	O	47	47	7.0	12.0	9.6	10	1.2	2.0	H
Nitrate + (mg/L)	0.31	03/26/15-05/30/19	O	47	47	0.27	0.41	0.31	0.31	0.02	0.04	
Al (DIS) (mg/L)	< 0.009	05/30/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	05/30/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	0.004	05/30/19	O	1	1	0.004	0.004	0.004	0.004	0	0.0	H
Ba (DIS) (mg/L)	0.113	05/30/19	O	1	1	0.113	0.113	0.113	0.113	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	05/30/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	05/30/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	05/30/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	05/30/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	05/30/19	O	1	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	05/30/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	05/30/19	O	1	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	05/30/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	05/30/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	0.0003	05/30/19	O	1	1	0.0003	0.0003	0.0003	0.0003	0	0.0	H
Ag (DIS) (mg/L)	< 0.0002	05/30/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.165	05/30/19	O	1	1	0.165	0.165	0.165	0.165	0	0.0	H
Tl (DIS) (mg/L)	0.001	05/30/19	O	1	1	0.001	0.001	0.001	0.001	0	0.0	H
U (DIS) (mg/L)	0.0009	05/30/19	O	1	1	0.0009	0.0009	0.0009	0.0009	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1905-115 LAB NO: H19050914-001

STATION:SW-1

05/30/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	14	05/24/11-05/30/19	O	79	79	3.9	15.0	10.9	10.9	2	1.5	
pH Fld (s.u.)	8.24	05/24/11-05/30/19	O	78	78	5.3	8.71	7.84	8.06	0.66	0.6	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

SC Fld (umhos/cm)	193	05/24/11-05/30/19	O	79	79	176.0	363.0	282.5	310	53.4	1.7	
Flow (Cubic Ft Sec)	199.5	05/24/11-05/30/19	O	59	59	0.0	613.0	17.4	25.7	91.3	2.0	
Gauge (Feet)	1.98	05/24/11-10/23/18	OBS	45	45	0.49	13.3	1.12	0.96	1.75	0.49	
Water Temp (Deg C)	5.1	05/24/11-05/30/19	O	79	79	-1.0	15.5	0.6	4	4.7	1.0	
TDS (mg/L)	116	05/24/11-05/30/19	O	71	71	107.0	227.0	168.7	180	27.6	1.9	
TSS (mg/L)	16	05/30/12-05/30/19	O	67	25	< 4	43.0					
Tot Alk (mg/L)	98	05/24/11-05/30/19	O	71	71	87.0	200.0	152.7	170	30.8	1.8	
Ca (mg/L)	28	05/30/19	O	1	1	28.0	28.0	28.0	28	0	0.0	H
Chloride (mg/L)	1	05/24/11-05/30/19	O	71	70	1.0	5.0	1.3	1	0.7	0.5	L
F (mg/L)	< 0.1	05/24/11-05/30/19	O	71	22	0.1	0.2					
Tot Hard (mg/L)	100	05/24/11-05/30/19	O	70	69	< 7	199.0	144.5	164	35.4	1.3	
Mg (mg/L)	7	05/30/19	O	1	1	7.0	7.0	7.0	7	0	0.0	H
K (mg/L)	< 1	05/30/19	O	1	0	< 1	< 1					
Na (mg/L)	1	05/30/19	O	1	1	1.0	1.0	1.0	1	0	0.0	H
SO4 (mg/L)	4	05/24/11-05/30/19	O	71	71	2.0	18.0	5.1	5	2.1	0.5	
Nitrate + (mg/L)	< 0.01	05/24/11-05/30/19	O	71	33	< 0.01	0.15					
P (mg/L)	0.021	05/30/19	O	1	1	0.021	0.021	0.021	0.021	0	0.0	H
Total Pers (mg/L)	0.15	04/29/15-05/30/19	O	45	41	< 0	1.12	0.12	0.15	0.16	0.16	
Al (DIS) (mg/L)	0.062	05/30/19	O	1	1	0.062	0.062	0.062	0.062	0	0.0	H
Sb (TRC) (mg/L)	< 0.0005	05/30/19	O	1	0	< 0.0005	< 0 .0005					
As (TRC) (mg/L)	< 0.001	05/30/19	O	1	0	< 0.001	< 0 .001					
Ba (TRC) (mg/L)	0.081	05/30/19	O	1	1	0.081	0.081	0.081	0.081	0	0.0	H
Be (TRC) (mg/L)	< 0.0008	05/30/19	O	1	0	< 0.0008	< 0 .0008					
Cd (TRC) (mg/L)	< 0	05/30/19	O	1	0	< 0	< .00003					
Cr (TRC) (mg/L)	< 0.01	05/30/19	O	1	0	< 0.01	< 0 .01					
Co (TRC) (mg/L)	< 0.01	05/30/19	O	1	0	< 0.01	< 0 .01					
Cu (TRC) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					
Fe (TRC) (mg/L)	0.6	05/30/19	O	1	1	0.6	0.6	0.6	0.6	0	0.0	H
Pb (TRC) (mg/L)	0.0003	05/30/19	O	1	1	0.0003	0.0003	0.0003	0.0003	0	0.0	H
Mn (TRC) (mg/L)	0.015	05/30/19	O	1	1	0.015	0.015	0.015	0.015	0	0.0	H
Hg (TRC) (ug/L)	0.011	05/30/19	O	1	1	0.011	0.011	0.011	0.011	0	0.0	H
Mo (TRC) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					
Ni (TRC) (mg/L)	0.001	05/30/19	O	1	1	0.001	0.001	0.001	0.001	0	0.0	H
Se (TRC) (mg/L)	< 0.0002	05/30/19	O	1	0	< 0.0002	< 0 .0002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Ag (TRC) (mg/L)	< 0.0002	05/30/19	O	1	0	< 0.0002	: 0 .0002					
Sr (TRC) (mg/L)	0.0896	05/30/19	O	1	1	0.0896	0.0896	0.0896	0.0896	0	0.0	H
Tl (TRC) (mg/L)	< 0.0002	05/30/19	O	1	0	< 0.0002	: 0 .0002					
U (TRC) (mg/L)	0.0002	05/30/19	O	1	1	0.0002	0.0002	0.0002	0.0002	0	0.0	H
Zn (TRC) (mg/L)	0.002	05/30/19	O	1	1	0.002	0.002	0.002	0.002	0	0.0	H

SAMPLE NO BBC-1905-119 LAB NO: H19050914-005 STATION:SW-2

05/30/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	12.85	05/24/11-05/30/19	O	78	78	6.35	16.18	11.0	10.91	1.73	1.07	
pH Fld (s.u.)	8.35	05/24/11-05/30/19	O	77	77	0.0	8.73	6.82	8.04	1.02	1.5	
SC Fld (umhos/cm)	201	05/24/11-05/30/19	O	78	78	156.0	388.0	275.6	303	54.5	1.4	
Flow (Cubic Ft Sec)	-9999	05/24/11-05/30/19	O	51	51	-9999.0	250.0	8.4	19.3	50.5	198.2	*L
Gauge (Cubic Ft Sec)	1.75	05/24/11-05/30/19	O	40	40	0.21	1.75	0.65	0.65	0.45	2.44	H
Water Temp (Deg C)	4.9	05/24/11-05/30/19	O	78	78	-1.0	15.8	0.2	3.3	4.9	0.9	
TDS (mg/L)	115	05/24/11-05/30/19	O	71	71	112.0	223.0	164.4	173	25.8	1.9	
TSS (mg/L)	15	05/30/12-05/30/19	O	67	19	< 4	105.0					
Tot Alk (mg/L)	100	05/24/11-05/30/19	O	71	71	80.0	200.0	150.0	160	27.9	1.8	
Ca (mg/L)	28	05/30/19	O	1	1	28.0	28.0	28.0	28	0	0.0	H
Chloride (mg/L)	1	05/24/11-05/30/19	O	71	69	1.0	5.0	1.3	1	0.7	0.5	L
F (mg/L)	< 0.1	05/24/11-05/30/19	O	71	1	< 0.1	0.4					
Tot Hard (mg/L)	98	05/24/11-05/30/19	O	71	70	< 7	202.0	143.4	164	33.3	1.4	
Mg (mg/L)	7	05/30/19	O	1	1	7.0	7.0	7.0	7	0	0.0	H
K (mg/L)	< 1	05/30/19	O	1	0	< 1	< 1					
Na (mg/L)	2	05/30/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	4	05/24/11-05/30/19	O	71	71	2.0	9.0	4.9	5	1.5	0.6	
Nitrate + (mg/L)	< 0.01	05/24/11-05/30/19	O	71	34	< 0.01	0.12					
P (mg/L)	0.017	05/30/19	O	1	1	0.017	0.017	0.017	0.017	0	0.0	H
Total Pers (mg/L)	0.12	04/29/15-05/30/19	O	45	39	< 0	1.39	0.1	0.1	0.25	0.07	
Al (DIS) (mg/L)	0.051	05/30/19	O	1	1	0.051	0.051	0.051	0.051	0	0.0	H
Sb (TRC) (mg/L)	< 0.0005	05/30/19	O	1	0	< 0.0005	: 0 .0005					
As (TRC) (mg/L)	< 0.001	05/30/19	O	1	0	< 0.001	< 0 .001					
Ba (TRC) (mg/L)	0.073	05/30/19	O	1	1	0.073	0.073	0.073	0.073	0	0.0	H
Be (TRC) (mg/L)	< 0.0008	05/30/19	O	1	0	< 0.0008	: 0 .0008					
Cd (TRC) (mg/L)	< 0	05/30/19	O	1	0	< 0	: .00003					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Cr (TRC) (mg/L)	< 0.01	05/30/19	O	1	0	< 0.01	< 0 .01					
Co (TRC) (mg/L)	< 0.01	05/30/19	O	1	0	< 0.01	< 0 .01					
Cu (TRC) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					
Fe (TRC) (mg/L)	0.55	05/30/19	O	1	1	0.55	0.55	0.55	0.55	0	0.0	H
Pb (TRC) (mg/L)	< 0.0003	05/30/19	O	1	0	< 0.0003	: 0 .0003					
Mn (TRC) (mg/L)	0.012	05/30/19	O	1	1	0.012	0.012	0.012	0.012	0	0.0	H
Hg (TRC) (ug/L)	0.01	05/30/19	O	1	1	0.01	0.01	0.01	0.01	0	0.0	H
Mo (TRC) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					
Ni (TRC) (mg/L)	0.001	05/30/19	O	1	1	0.001	0.001	0.001	0.001	0	0.0	H
Se (TRC) (mg/L)	< 0.0002	05/30/19	O	1	0	< 0.0002	: 0 .0002					
Ag (TRC) (mg/L)	< 0.0002	05/30/19	O	1	0	< 0.0002	: 0 .0002					
Sr (TRC) (mg/L)	0.0946	05/30/19	O	1	1	0.0946	0.0946	0.0946	0.0946	0	0.0	H
Tl (TRC) (mg/L)	< 0.0002	05/30/19	O	1	0	< 0.0002	: 0 .0002					
U (TRC) (mg/L)	0.0002	05/30/19	O	1	1	0.0002	0.0002	0.0002	0.0002	0	0.0	H
Zn (TRC) (mg/L)	0.004	05/30/19	O	1	1	0.004	0.004	0.004	0.004	0	0.0	H

SAMPLE NO BBC-1905-121 LAB NO: H19050914-007

STATION:SW-3

05/30/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	11.41	05/24/11-05/30/19	O	32	32	5.95	12.87	9.9	10	1.57	0.96	
pH Fld (s.u.)	8.34	05/24/11-05/30/19	O	32	32	7.92	8.7	8.28	8.3	0.16	0.4	
SC Fld (umhos/cm)	308	05/24/11-05/30/19	O	32	32	269.0	423.0	374.0	385	36.5	1.8	
Flow (Cubic Ft Sec)	0.18	05/24/11-05/30/19	O	28	28	0.03	4.9	0.17	0.14	0.85	0.01	
Water Temp (Deg C)	8.9	05/24/11-05/30/19	O	32	32	0.0	14.5	3.3	9	4.7	1.2	
TDS (mg/L)	200	05/24/11-05/30/19	O	30	30	152.0	255.0	216.2	220.5	17.2	0.9	
TSS (mg/L)	< 4	05/30/12-05/30/19	O	27	10	< 4	14.0					
Tot Alk (mg/L)	180	05/24/11-05/30/19	O	30	30	150.0	210.0	196.2	200	13	1.2	
Ca (mg/L)	44	05/30/19	O	1	1	44.0	44.0	44.0	44	0	0.0	H
Chloride (mg/L)	2	05/24/11-05/30/19	O	30	28	1.0	3.0	1.5	1.9	0.5	1.0	
F (mg/L)	0.2	05/24/11-05/30/19	O	30	30	0.1	0.2	0.2	0.2	0	0.0	H
Tot Hard (mg/L)	195	05/24/11-05/30/19	O	30	30	139.0	234.0	206.3	214	18.8	0.6	
Mg (mg/L)	21	05/30/19	O	1	1	21.0	21.0	21.0	21	0	0.0	H
K (mg/L)	< 1	05/30/19	O	1	0	< 1	< 1					
Na (mg/L)	2	05/30/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	18	05/24/11-05/30/19	O	30	30	5.0	26.0	15.5	17	5.1	0.5	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Nitrate + (mg/L)	< 0.01	05/24/11-05/30/19	O	30	25	0.01	0.12	0.04	0.05	0.03	0.93	L
P (mg/L)	0.006	05/30/19	O	1	1	0.006	0.006	0.006	0.006	0	0.0	H
Total Pers (mg/L)	0.12	06/24/15-05/30/19	O	17	16	< 0.04	0.6	0.13	0.13	0.11	0.13	
Al (DIS) (mg/L)	< 0.009	05/30/19	O	1	0	< 0.009	< 0 .009					
Sb (TRC) (mg/L)	< 0.0005	05/30/19	O	1	0	< 0.0005	: 0 .0005					
As (TRC) (mg/L)	< 0.001	05/30/19	O	1	0	< 0.001	< 0 .001					
Ba (TRC) (mg/L)	0.133	05/30/19	O	1	1	0.133	0.133	0.133	0.133	0	0.0	H
Be (TRC) (mg/L)	< 0.0008	05/30/19	O	1	0	< 0.0008	: 0 .0008					
Cd (TRC) (mg/L)	< 0	05/30/19	O	1	0	< 0	: .00003					
Cr (TRC) (mg/L)	< 0.01	05/30/19	O	1	0	< 0.01	< 0 .01					
Co (TRC) (mg/L)	< 0.01	05/30/19	O	1	0	< 0.01	< 0 .01					
Cu (TRC) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					
Fe (TRC) (mg/L)	0.03	05/30/19	O	1	1	0.03	0.03	0.03	0.03	0	0.0	H
Pb (TRC) (mg/L)	< 0.0003	05/30/19	O	1	0	< 0.0003	: 0 .0003					
Mn (TRC) (mg/L)	< 0.005	05/30/19	O	1	0	< 0.005	< 0 .005					
Hg (TRC) (ug/L)	< 0.005	05/30/19	O	1	0	< 0.005	< 0 .005					
Mo (TRC) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					
Ni (TRC) (mg/L)	< 0.001	05/30/19	O	1	0	< 0.001	< 0 .001					
Se (TRC) (mg/L)	< 0.0002	05/30/19	O	1	0	< 0.0002	: 0 .0002					
Ag (TRC) (mg/L)	< 0.0002	05/30/19	O	1	0	< 0.0002	: 0 .0002					
Sr (TRC) (mg/L)	0.1	05/30/19	O	1	1	0.1	0.1	0.1	0.1	0	0.0	H
Tl (TRC) (mg/L)	< 0.0002	05/30/19	O	1	0	< 0.0002	: 0 .0002					
U (TRC) (mg/L)	0.0006	05/30/19	O	1	1	0.0006	0.0006	0.0006	0.0006	0	0.0	H
Zn (TRC) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1905-109 LAB NO: H19050915-004

STATION:SW-7

05/29/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	8.67	05/24/11-05/29/19	O	22	22	2.82	11.31	8.18	8.24	1.64	0.3
pH Fld (s.u.)	7.84	05/24/11-05/29/19	O	22	22	6.22	7.99	7.64	7.74	0.36	0.55
SC Fld (umhos/cm)	409	05/24/11-05/29/19	O	22	22	359.0	426.3	403.7	408	19.8	0.3
Flow (Gallons Per Min)	25.1	05/24/11-05/29/19	O	20	20	0.0	128.4	4.7	7.4	19.9	1.0
Water Temp (Deg C)	9.3	05/24/11-05/29/19	O	22	22	0.6	13.1	7.1	9.1	3.2	0.7
TDS (mg/L)	214	11/26/12-05/29/19	O	20	20	201.0	241.0	223.4	225	11.1	0.9
TSS (mg/L)	10	11/26/12-05/29/19	O	20	6	< 10	219.0				

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Tot Alk (mg/L)	220	11/26/12-05/29/19	O	20	20	200.0	230.0	216.4	220	7.5	0.5	
Ca (mg/L)	55	05/29/19	O	1	1	55.0	55.0	55.0	55	0	0.0	H
Chloride (mg/L)	< 1	11/26/12-05/29/19	O	20	1	< 1	2.0					
F (mg/L)	0.1	11/26/12-05/29/19	O	20	16	< 0.1	< 0 .1	0.1	0.1	0	0.0	H
Tot Hard (mg/L)	209	11/26/12-05/29/19	O	20	20	193.0	242.0	221.2	222	12.7	1.0	
Mg (mg/L)	17	05/29/19	O	1	1	17.0	17.0	17.0	17	0	0.0	H
K (mg/L)	< 1	05/29/19	O	1	0	< 1	< 1					
Na (mg/L)	2	05/29/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	10	11/26/12-05/29/19	O	20	20	6.0	11.0	8.8	9.1	1.4	0.9	
Nitrate + (mg/L)	0.04	11/26/12-05/29/19	O	20	17	< 0.01	0.13	0.03	0.04	0.03	0.27	
Al (DIS) (mg/L)	< 0.009	05/29/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	05/29/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	05/29/19	O	1	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.049	05/29/19	O	1	1	0.049	0.049	0.049	0.049	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	05/29/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	05/29/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	05/29/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	05/29/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	05/29/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	05/29/19	O	1	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	05/29/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	05/29/19	O	1	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	05/29/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	05/29/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	05/29/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	05/29/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	05/29/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.131	05/29/19	O	1	1	0.131	0.131	0.131	0.131	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	05/29/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0006	05/29/19	O	1	1	0.0006	0.0006	0.0006	0.0006	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	05/29/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO	BBC-1905-120	LAB NO:	H19050914-006	STATION:USGS-SC1

05/30/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

DO (mg/L)	12.86	03/24/14-05/30/19	O	62	62	7.12	16.55	11.18	11.17	1.62	1.04	
pH Fld (s.u.)	8.41	03/24/14-05/30/19	O	61	61	6.67	8.67	7.97	8.17	0.43	1.02	
SC Fld (umhos/cm)	251	03/24/14-05/30/19	O	62	62	137.0	408.0	321.7	341.5	50.7	1.4	
Flow (Cubic Ft Sec)	-9999	05/05/14-05/30/19	O	40	40	-9999.0	111.3	5.6	18.6	37.4	267.5	*L
Water Temp (Deg C)	4.6	03/24/14-05/30/19	O	62	62	-1.0	13.1	0.4	2.9	4.1	1.0	
TDS (mg/L)	132	03/24/14-05/30/19	O	59	59	132.0	230.0	187.6	195	20	2.8	L
TSS (mg/L)	19	03/24/14-05/30/19	O	59	16	< 4	38.0					
Tot Alk (mg/L)	130	03/24/14-05/30/19	O	59	59	120.0	220.0	175.3	180	21.4	2.1	
Ca (mg/L)	37	05/30/19	O	1	1	37.0	37.0	37.0	37	0	0.0	H
Chloride (mg/L)	1	03/24/14-05/30/19	O	59	59	1.0	5.0	1.5	1	0.9	0.5	L
F (mg/L)	< 0.1	03/24/14-05/30/19	O	59	1	< 0.1	< 0 .1					
Tot Hard (mg/L)	128	03/24/14-05/30/19	O	59	58	< 7	214.0	167.0	185	29.5	1.3	
Mg (mg/L)	9	05/30/19	O	1	1	9.0	9.0	9.0	9	0	0.0	H
K (mg/L)	1	05/30/19	O	1	1	1.0	1.0	1.0	1	0	0.0	H
Na (mg/L)	2	05/30/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	5	03/24/14-05/30/19	O	59	59	3.0	8.0	5.7	6	1.4	0.5	
Nitrate + (mg/L)	< 0.01	03/24/14-05/30/19	O	59	40	< 0.01	0.13	0.03	0.03	0.04	0.48	L
P (mg/L)	0.018	05/30/19	O	1	1	0.018	0.018	0.018	0.018	0	0.0	H
Total Pers (mg/L)	0.12	04/29/15-05/30/19	O	45	35	< 0	1.1	0.08	0.09	0.16	0.23	
Al (DIS) (mg/L)	0.023	05/30/19	O	1	1	0.023	0.023	0.023	0.023	0	0.0	H
Sb (TRC) (mg/L)	< 0.0005	05/30/19	O	1	0	< 0.0005	: 0 .0005					
As (TRC) (mg/L)	< 0.001	05/30/19	O	1	0	< 0.001	< 0 .001					
Ba (TRC) (mg/L)	0.061	05/30/19	O	1	1	0.061	0.061	0.061	0.061	0	0.0	H
Be (TRC) (mg/L)	< 0.0008	05/30/19	O	1	0	< 0.0008	: 0 .0008					
Cd (TRC) (mg/L)	< 0	05/30/19	O	1	0	< 0	: .00003					
Cr (TRC) (mg/L)	< 0.01	05/30/19	O	1	0	< 0.01	< 0 .01					
Co (TRC) (mg/L)	< 0.01	05/30/19	O	1	0	< 0.01	< 0 .01					
Cu (TRC) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					
Fe (TRC) (mg/L)	0.67	05/30/19	O	1	1	0.67	0.67	0.67	0.67	0	0.0	H
Pb (TRC) (mg/L)	0.0003	05/30/19	O	1	1	0.0003	0.0003	0.0003	0.0003	0	0.0	H
Mn (TRC) (mg/L)	0.013	05/30/19	O	1	1	0.013	0.013	0.013	0.013	0	0.0	H
Hg (TRC) (ug/L)	0.01	05/30/19	O	1	1	0.01	0.01	0.01	0.01	0	0.0	H
Mo (TRC) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					
Ni (TRC) (mg/L)	0.002	05/30/19	O	1	1	0.002	0.002	0.002	0.002	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Se (TRC) (mg/L)	< 0.0002	05/30/19	O	1	0	< 0.0002	: 0 .0002					
Ag (TRC) (mg/L)	< 0.0002	05/30/19	O	1	0	< 0.0002	: 0 .0002					
Sr (TRC) (mg/L)	0.119	05/30/19	O	1	1	0.119	0.119	0.119	0.119	0	0.0	H
Tl (TRC) (mg/L)	< 0.0002	05/30/19	O	1	0	< 0.0002	: 0 .0002					
U (TRC) (mg/L)	0.0003	05/30/19	O	1	1	0.0003	0.0003	0.0003	0.0003	0	0.0	H
Zn (TRC) (mg/L)	0.002	05/30/19	O	1	1	0.002	0.002	0.002	0.002	0	0.0	H

SAMPLE NO BBC-1905-128 LAB NO: H19050914-008 STATION:DI-Blank

05/30/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
TDS (mg/L)	< 10	N/A	FB	0							
TDS (mg/L)	< 10	N/A	FB	0							
TSS (mg/L)	< 10	N/A	FB	0							
TSS (mg/L)	< 4	N/A	FB	0							
Tot Alk (mg/L)	< 4	N/A	FB	0							
Tot Alk (mg/L)	< 4	N/A	FB	0							
Ca (mg/L)	< 1	N/A	FB	0							
Ca (mg/L)	< 1	N/A	FB	0							
Chloride (mg/L)	< 1	N/A	FB	0							
Chloride (mg/L)	< 1	N/A	FB	0							
F (mg/L)	< 0.1	N/A	FB	0							
F (mg/L)	< 0.1	N/A	FB	0							
Tot Hard (mg/L)	< 1	N/A	FB	0							
Tot Hard (mg/L)	< 1	N/A	FB	0							
Mg (mg/L)	< 1	N/A	FB	0							
Mg (mg/L)	< 1	N/A	FB	0							
K (mg/L)	< 1	N/A	FB	0							
K (mg/L)	< 1	N/A	FB	0							
Na (mg/L)	< 1	N/A	FB	0							
Na (mg/L)	< 1	N/A	FB	0							
SO4 (mg/L)	< 1	N/A	FB	0							
SO4 (mg/L)	< 1	N/A	FB	0							
Nitrate + (mg/L)	< 0.01	N/A	FB	0							
Nitrate + (mg/L)	< 0.01	N/A	FB	0							
P (mg/L)	< 0.003	N/A	FB	0							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Total Pers (mg/L)	< 0.04	N/A	FB	0
Al (DIS) (mg/L)	< 0.009	N/A	FB	0
Al (DIS) (mg/L)	< 0.009	N/A	FB	0
Sb (TRC) (mg/L)	< 0.0005	N/A	FB	0
Sb (DIS) (mg/L)	< 0.0005	N/A	FB	0
As (TRC) (mg/L)	< 0.001	N/A	FB	0
As (DIS) (mg/L)	< 0.001	N/A	FB	0
Ba (TRC) (mg/L)	< 0.003	N/A	FB	0
Ba (DIS) (mg/L)	< 0.003	N/A	FB	0
Be (DIS) (mg/L)	< 0.0008	N/A	FB	0
Be (TRC) (mg/L)	< 0.0008	N/A	FB	0
Cd (TRC) (mg/L)	< 0	N/A	FB	0
Cd (DIS) (mg/L)	< 0	N/A	FB	0
Cr (TRC) (mg/L)	< 0.01	N/A	FB	0
Cr (DIS) (mg/L)	< 0.01	N/A	FB	0
Co (DIS) (mg/L)	< 0.01	N/A	FB	0
Co (TRC) (mg/L)	< 0.01	N/A	FB	0
Cu (DIS) (mg/L)	< 0.002	N/A	FB	0
Cu (TRC) (mg/L)	< 0.002	N/A	FB	0
Fe (DIS) (mg/L)	< 0.02	N/A	FB	0
Fe (TRC) (mg/L)	0.03	N/A	FB	0
Pb (TRC) (mg/L)	< 0.0003	N/A	FB	0
Pb (DIS) (mg/L)	< 0.0003	N/A	FB	0
Mn (TRC) (mg/L)	< 0.005	N/A	FB	0
Mn (DIS) (mg/L)	< 0.005	N/A	FB	0
Hg (DIS) (ug/L)	< 0.005	N/A	FB	0
Hg (TRC) (ug/L)	< 0.005	N/A	FB	0
Mo (TRC) (mg/L)	< 0.002	N/A	FB	0
Mo (DIS) (mg/L)	< 0.002	N/A	FB	0
Ni (DIS) (mg/L)	< 0.001	N/A	FB	0
Ni (TRC) (mg/L)	< 0.001	N/A	FB	0
Se (DIS) (mg/L)	< 0.0002	N/A	FB	0
Se (TRC) (mg/L)	< 0.0002	N/A	FB	0
Ag (TRC) (mg/L)	< 0.0002	N/A	FB	0

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Ag (DIS) (mg/L)	< 0.0002	N/A	FB	0
Sr (TRC) (mg/L)	0.0004	N/A	FB	0
Sr (DIS) (mg/L)	< 0.0002	N/A	FB	0
Tl (TRC) (mg/L)	< 0.0002	N/A	FB	0
Tl (DIS) (mg/L)	< 0.0002	N/A	FB	0
U (TRC) (mg/L)	< 0.0002	N/A	FB	0
U (DIS) (mg/L)	< 0.0002	N/A	FB	0
Zn (TRC) (mg/L)	0.002	N/A	FB	0
Zn (DIS) (mg/L)	< 0.002	N/A	FB	0

SAMPLE NO BBC-1905-117 LAB NO: H19050914-003

STATION:SW-14

PARAMETER	05/30/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	10.99	04/13/16-05/30/19	O	35	35	7.59	15.01	10.69	10.44	1.65	0.18	
pH Fld (s.u.)	8.02	04/13/16-05/30/19	O	34	34	6.07	8.48	7.92	8.07	0.47	0.2	
SC Fld (umhos/cm)	387	04/13/16-05/30/19	O	35	35	263.0	439.0	379.3	394	43	0.2	
Flow (Cubic Ft Sec)	5.87	02/25/16-05/30/19	O	32	32	0.0	11.75	0.47	1.07	3.12	1.73	
Gauge (Feet)	0.8	04/13/16-05/30/19	O	18	18	0.3	0.8	0.5	0.5	0.1	3.4	*H
Water Temp (Deg C)	8.3	04/13/16-05/30/19	O	35	35	-0.9	14.7	2.4	6.8	4.6	1.3	
TDS (mg/L)	222	04/13/16-05/30/19	O	32	32	175.0	244.0	223.5	226.5	14.8	0.1	
TDS (mg/L)	216	04/13/16-05/30/19	DUP	32	32	175.0	244.0	223.5	226.5	14.8	0.5	
TSS (mg/L)	< 4	04/13/16-05/30/19	O	32	4	< 4	15.0					
TSS (mg/L)	< 4	04/13/16-05/30/19	DUP	32	4	< 4	15.0					
Tot Alk (mg/L)	200	04/13/16-05/30/19	O	32	32	160.0	220.0	205.4	210	17.2	0.3	
Tot Alk (mg/L)	200	04/13/16-05/30/19	DUP	32	32	160.0	220.0	205.4	210	17.2	0.3	
Ca (mg/L)	49	05/30/19	DUP	1	1	53.0	53.0	53.0	53	2.8	1.4	L
Ca (mg/L)	53	05/30/19	O	1	1	53.0	53.0	53.0	53	2.8	0.0	H
Chloride (mg/L)	2	04/13/16-05/30/19	O	32	32	1.0	4.0	1.9	2	0.5	0.1	
Chloride (mg/L)	2	04/13/16-05/30/19	DUP	32	32	1.0	4.0	1.9	2	0.5	0.1	
F (mg/L)	0.2	04/13/16-05/30/19	DUP	32	32	0.1	0.2	0.2	0.2	0	0.0	H
F (mg/L)	0.2	04/13/16-05/30/19	O	32	32	0.1	0.2	0.2	0.2	0	0.0	H
Tot Hard (mg/L)	210	04/13/16-05/30/19	O	32	32	153.0	239.0	211.6	214.5	18.1	0.1	
Tot Hard (mg/L)	196	04/13/16-05/30/19	DUP	32	32	153.0	239.0	211.6	214.5	18.1	0.9	
Mg (mg/L)	19	05/30/19	O	1	1	19.0	19.0	19.0	19	0.7	0.0	H
Mg (mg/L)	18	05/30/19	DUP	1	1	19.0	19.0	19.0	19	0.7	1.4	L

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

K (mg/L)	1	05/30/19	O	1	1	1.0	1.0	1.0	1	0	0.0	H
K (mg/L)	1	05/30/19	DUP	1	1	1.0	1.0	1.0	1	0	0.0	H
Na (mg/L)	2	05/30/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
Na (mg/L)	2	05/30/19	DUP	1	1	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	11	04/13/16-05/30/19	O	32	32	6.5	19.0	9.2	9	2.9	0.6	
SO4 (mg/L)	11	04/13/16-05/30/19	DUP	32	32	6.5	19.0	9.2	9	2.9	0.6	
Nitrate + (mg/L)	0.05	04/13/16-05/30/19	DUP	32	31	0.01	0.27	0.07	0.09	0.08	0.21	
Nitrate + (mg/L)	0.04	04/13/16-05/30/19	O	32	31	0.01	0.27	0.07	0.09	0.08	0.33	
P (mg/L)	0.008	05/30/19	O	1	1	0.008	0.008	0.008	0.008	0	0.0	H
P (mg/L)	0.008	05/30/19	DUP	1	1	0.008	0.008	0.008	0.008	0	0.0	H
Total Pers (mg/L)	0.2	04/13/16-05/30/19	O	29	28	< 0	1.3	0.2	0.2	0.2	0.1	
Total Pers (mg/L)	0.21	04/13/16-05/30/19	DUP	29	28	< 0	1.25	0.18	0.21	0.23	0.14	
Al (DIS) (mg/L)	< 0.009	05/30/19	O	1	0	< 0.009	< 0 .009					
Al (DIS) (mg/L)	< 0.009	05/30/19	DUP	1	0	< 0.009	< 0 .009					
Sb (TRC) (mg/L)	< 0.0005	05/30/19	O	1	0	< 0.0005	: 0 .0005					
Sb (TRC) (mg/L)	< 0.0005	05/30/19	DUP	1	0	< 0.0005	: 0 .0005					
As (TRC) (mg/L)	< 0.001	05/30/19	DUP	1	0	< 0.001	< 0 .001					
As (TRC) (mg/L)	< 0.001	05/30/19	O	1	0	< 0.001	< 0 .001					
Ba (TRC) (mg/L)	0.103	05/30/19	O	1	1	0.103	0.103	0.103	0.103	0	0.0	H
Ba (TRC) (mg/L)	0.103	05/30/19	DUP	1	1	0.103	0.103	0.103	0.103	0	0.0	H
Be (TRC) (mg/L)	< 0.0008	05/30/19	DUP	1	0	< 0.0008	: 0 .0008					
Be (TRC) (mg/L)	< 0.0008	05/30/19	O	1	0	< 0.0008	: 0 .0008					
Cd (TRC) (mg/L)	< 0	05/30/19	DUP	1	0	< 0	: .00003					
Cd (TRC) (mg/L)	< 0	05/30/19	O	1	0	< 0	: .00003					
Cr (TRC) (mg/L)	< 0.01	05/30/19	DUP	1	0	< 0.01	< 0 .01					
Cr (TRC) (mg/L)	< 0.01	05/30/19	O	1	0	< 0.01	< 0 .01					
Co (TRC) (mg/L)	< 0.01	05/30/19	DUP	1	0	< 0.01	< 0 .01					
Co (TRC) (mg/L)	< 0.01	05/30/19	O	1	0	< 0.01	< 0 .01					
Cu (TRC) (mg/L)	< 0.002	05/30/19	DUP	1	0	< 0.002	< 0 .002					
Cu (TRC) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					
Fe (TRC) (mg/L)	0.06	05/30/19	O	1	1	0.06	0.06	0.06	0.06	0	0.0	H
Fe (TRC) (mg/L)	0.06	05/30/19	DUP	1	1	0.06	0.06	0.06	0.06	0	0.0	H
Pb (TRC) (mg/L)	< 0.0003	05/30/19	O	1	0	< 0.0003	: 0 .0003					
Pb (TRC) (mg/L)	< 0.0003	05/30/19	DUP	1	0	< 0.0003	: 0 .0003					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Mn (TRC) (mg/L)	0.005	05/30/19	DUP	1	1	0.005	0.005	0.005	0.005	0	0.0	H
Mn (TRC) (mg/L)	0.005	05/30/19	O	1	1	0.005	0.005	0.005	0.005	0	0.0	H
Hg (TRC) (ug/L)	0.005	05/30/19	O	1	1	0.005	0.005	0.005	0.005	0	0.0	H
Hg (TRC) (ug/L)	0.005	05/30/19	DUP	1	1	0.005	0.005	0.005	0.005	0	0.0	H
Mo (TRC) (mg/L)	< 0.002	05/30/19	DUP	1	0	< 0.002	< 0 .002					
Mo (TRC) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					
Ni (TRC) (mg/L)	< 0.001	05/30/19	O	1	0	< 0.001	< 0 .001					
Ni (TRC) (mg/L)	< 0.001	05/30/19	DUP	1	0	< 0.001	< 0 .001					
Se (TRC) (mg/L)	< 0.0002	05/30/19	DUP	1	0	< 0.0002	: 0 .0002					
Se (TRC) (mg/L)	< 0.0002	05/30/19	O	1	0	< 0.0002	: 0 .0002					
Ag (TRC) (mg/L)	< 0.0002	05/30/19	DUP	1	0	< 0.0002	: 0 .0002					
Ag (TRC) (mg/L)	< 0.0002	05/30/19	O	1	0	< 0.0002	: 0 .0002					
Sr (TRC) (mg/L)	0.115	05/30/19	O	1	1	0.115	0.115	0.115	0.115	0.001	0.0	H
Sr (TRC) (mg/L)	0.116	05/30/19	DUP	1	1	0.115	0.115	0.115	0.115	0.001	1.0	H
Tl (TRC) (mg/L)	< 0.0002	05/30/19	O	1	0	< 0.0002	: 0 .0002					
Tl (TRC) (mg/L)	< 0.0002	05/30/19	DUP	1	0	< 0.0002	: 0 .0002					
U (TRC) (mg/L)	0.0005	05/30/19	O	1	1	0.0005	0.0005	0.0005	0.0005	0	0.0	H
U (TRC) (mg/L)	0.0005	05/30/19	DUP	1	1	0.0005	0.0005	0.0005	0.0005	0	0.0	H
Zn (TRC) (mg/L)	< 0.002	05/30/19	DUP	1	0	< 0.002	< 0 .002					
Zn (TRC) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1905-116 LAB NO: H19050914-002 STATION:SW-17

05/30/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	12.9	01/17/18-05/30/19	O	13	13	9.3	12.9	10.6	10.8	0.9	2.5	H
pH Fld (s.u.)	8.07	01/17/18-05/30/19	O	13	13	7.47	8.41	8.06	8.07	0.25	0.04	
SC Fld (umhos/cm)	360	01/17/18-05/30/19	O	13	13	319.0	487.0	423.3	436	42.8	1.5	
Flow (Cubic Ft Sec)	1.37	01/17/18-05/30/19	O	9	9	0.0	1.8	0.06	0.19	0.6	2.19	
Water Temp (Deg C)	7.01	01/17/18-05/30/19	O	13	13	0.02	13.3	1.69	5.3	4.67	1.14	
TDS (mg/L)	201	01/17/18-05/30/19	O	14	14	197.0	299.0	248.8	253.5	25.7	1.9	
TSS (mg/L)	< 4	01/17/18-05/30/19	O	14	5	< 4	14.0					
Tot Alk (mg/L)	170	01/17/18-05/30/19	O	14	14	150.0	210.0	200.5	210	16.8	1.8	
Ca (mg/L)	45	05/30/19	O	1	1	45.0	45.0	45.0	45	0	0.0	H
Chloride (mg/L)	5	01/17/18-05/30/19	O	14	14	3.0	7.0	4.1	4	1.1	0.8	
F (mg/L)	0.2	01/17/18-05/30/19	O	14	14	0.1	0.2	0.2	0.2	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Tot Hard (mg/L)	194	01/17/18-05/30/19	O	14	14	167.0	262.0	230.6	240.5	23.3	1.6	
Mg (mg/L)	20	05/30/19	O	1	1	20.0	20.0	20.0	20	0	0.0	H
K (mg/L)	< 1	05/30/19	O	1	0	< 1	< 1					
Na (mg/L)	2	05/30/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	18	01/17/18-05/30/19	O	14	14	12.0	44.0	27.8	33.5	7.9	1.2	
Nitrate + (mg/L)	0.03	01/17/18-05/30/19	O	14	13	< 0.01	0.19	0.07	0.09	0.06	0.68	
P (mg/L)	0.01	05/30/19	O	1	1	0.01	0.01	0.01	0.01	0	0.0	H
Total Pers (mg/L)	0.2	04/12/18-05/30/19	O	11	11	0.1	0.3	0.2	0.2	0.1	0.1	
Al (DIS) (mg/L)	< 0.009	05/30/19	O	1	0	< 0.009	< 0 .009					
Sb (TRC) (mg/L)	< 0.0005	05/30/19	O	1	0	< 0.0005	: 0 .0005					
As (TRC) (mg/L)	< 0.001	05/30/19	O	1	0	< 0.001	< 0 .001					
Ba (TRC) (mg/L)	0.122	05/30/19	O	1	1	0.122	0.122	0.122	0.122	0	0.0	H
Be (TRC) (mg/L)	< 0.0008	05/30/19	O	1	0	< 0.0008	: 0 .0008					
Cd (TRC) (mg/L)	< 0	05/30/19	O	1	0	< 0	: .00003					
Cr (TRC) (mg/L)	< 0.01	05/30/19	O	1	0	< 0.01	< 0 .01					
Co (TRC) (mg/L)	< 0.01	05/30/19	O	1	0	< 0.01	< 0 .01					
Cu (TRC) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					
Fe (TRC) (mg/L)	0.16	05/30/19	O	1	1	0.16	0.16	0.16	0.16	0	0.0	H
Pb (TRC) (mg/L)	< 0.0003	05/30/19	O	1	0	< 0.0003	: 0 .0003					
Mn (TRC) (mg/L)	0.016	05/30/19	O	1	1	0.016	0.016	0.016	0.016	0	0.0	H
Hg (TRC) (ug/L)	0.007	05/30/19	O	1	1	0.007	0.007	0.007	0.007	0	0.0	H
Mo (TRC) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					
Ni (TRC) (mg/L)	< 0.001	05/30/19	O	1	0	< 0.001	< 0 .001					
Se (TRC) (mg/L)	< 0.0002	05/30/19	O	1	0	< 0.0002	: 0 .0002					
Ag (TRC) (mg/L)	< 0.0002	05/30/19	O	1	0	< 0.0002	: 0 .0002					
Sr (TRC) (mg/L)	0.111	05/30/19	O	1	1	0.111	0.111	0.111	0.111	0	0.0	H
Tl (TRC) (mg/L)	< 0.0002	05/30/19	O	1	0	< 0.0002	: 0 .0002					
U (TRC) (mg/L)	0.0005	05/30/19	O	1	1	0.0005	0.0005	0.0005	0.0005	0	0.0	H
Zn (TRC) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1905-111 LAB NO: z

STATION:SW-18

05/29/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Gallons Per Min)	-9999	N/A	OBS	0								

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: July 15, 2019

SAMPLE NO BBC-1905-110	LAB NO: z	STATION:SP-11

05/29/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Gallons Per Min)	-9999	N/A	OBS	0								

SAMPLE NO BBC-1905-125	LAB NO: H19050915-010	STATION:SP-12

05/30/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	10.38	04/18/18-05/30/19	O	10	10	3.32	10.38	6.48	7.41	2.25	1.73	H
pH Fld (s.u.)	7.84	04/18/18-05/30/19	O	10	10	6.76	7.95	7.55	7.71	0.36	0.8	
SC Fld (umhos/cm)	446	04/18/18-05/30/19	O	10	10	421.0	473.0	442.8	441.5	16.4	0.2	
Flow (Gallons Per Min)	-9999	05/30/19	O	1	1	-9999.0	-9999.0	0.0	0	0	0.0	H
Water Temp (Deg C)	5.5	04/18/18-05/30/19	O	10	10	5.1	7.3	6.1	6.2	0.7	0.9	
TDS (mg/L)	246	04/18/18-05/30/19	O	11	11	234.0	262.0	247.1	248	9.3	0.1	
TSS (mg/L)	115	04/18/18-05/30/19	O	11	7	< 10	187.0	29.3	23	56.5	1.5	
Tot Alk (mg/L)	210	04/18/18-05/30/19	O	11	11	190.0	220.0	205.3	210	9.3	0.5	
Ca (mg/L)	50	05/30/19	O	1	1	50.0	50.0	50.0	50	0	0.0	H
Chloride (mg/L)	10	04/18/18-05/30/19	O	11	11	5.0	10.0	7.6	8	1.6	1.5	H
F (mg/L)	0.2	04/18/18-05/30/19	O	11	11	0.2	0.2	0.2	0.2	0	0.0	H
Tot Hard (mg/L)	214	04/18/18-05/30/19	O	11	11	214.0	258.0	235.3	238	12.5	1.7	L
Mg (mg/L)	21	05/30/19	O	1	1	21.0	21.0	21.0	21	0	0.0	H
K (mg/L)	1	05/30/19	O	1	1	1.0	1.0	1.0	1	0	0.0	H
Na (mg/L)	2	05/30/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	13	04/18/18-05/30/19	O	11	11	13.0	28.0	23.0	24	4.1	2.4	L
Nitrate + (mg/L)	0.12	04/18/18-05/30/19	O	11	11	0.12	0.69	0.36	0.33	0.17	1.4	L
Al (DIS) (mg/L)	< 0.009	05/30/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	05/30/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	05/30/19	O	1	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.16	05/30/19	O	1	1	0.16	0.16	0.16	0.16	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	05/30/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	05/30/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	05/30/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	05/30/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	0.07	05/30/19	O	1	1	0.07	0.07	0.07	0.07	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Pb (DIS) (mg/L)	< 0.0003	05/30/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	0.017	05/30/19	O	1	1	0.017	0.017	0.017	0.017	0	0.0	H
Hg (DIS) (ug/L)	0.005	05/30/19	O	1	1	0.005	0.005	0.005	0.005	0	0.0	H
Mo (DIS) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	05/30/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	0.0002	05/30/19	O	1	1	0.0002	0.0002	0.0002	0.0002	0	0.0	H
Ag (DIS) (mg/L)	< 0.0002	05/30/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.103	05/30/19	O	1	1	0.103	0.103	0.103	0.103	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	05/30/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0006	05/30/19	O	1	1	0.0006	0.0006	0.0006	0.0006	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	05/30/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1905-104 LAB NO: z — STATION:DS-10

PARAMETER	05/29/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	9.26	N/A	OBS	0							
pH Fld (s.u.)	7.52	N/A	OBS	0							
SC Fld (umhos/cm)	401	N/A	OBS	0							
Flow (Gallons Per Min)	6.8	N/A	OBS	0							
Water Temp (Deg C)	5.9	N/A	OBS	0							

SAMPLE NO BBC-1905-100 LAB NO: z — STATION:DS-11

PARAMETER	05/29/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	11.48	N/A	OBS	0							
pH Fld (s.u.)	7.77	N/A	OBS	0							
SC Fld (umhos/cm)	421	N/A	OBS	0							
Flow (Gallons Per Min)	18.2	N/A	OBS	0							
Water Temp (Deg C)	4.8	N/A	OBS	0							

SAMPLE NO BBC-1905-122 LAB NO: z — STATION:DS-7

PARAMETER	05/30/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	11.63	N/A	OBS	0							
pH Fld (s.u.)	7.66	N/A	OBS	0							
SC Fld (umhos/cm)	250	N/A	OBS	0							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Flow (Gallons Per Min)	8	N/A	OBS	0
Water Temp (Deg C)	7	N/A	OBS	0

SAMPLE NO BBC-1905-102 LAB NO: z STATION:DS-8

PARAMETER	05/29/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	10.13	N/A	OBS	0							
pH Fld (s.u.)	7.81	N/A	OBS	0							
SC Fld (umhos/cm)	395	N/A	OBS	0							
Flow (Gallons Per Min)	8.1	N/A	OBS	0							
Water Temp (Deg C)	4.3	N/A	OBS	0							

SAMPLE NO BBC-1905-103 LAB NO: z STATION:DS-9

PARAMETER	05/29/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	9.69	N/A	OBS	0							
pH Fld (s.u.)	7.87	N/A	OBS	0							
SC Fld (umhos/cm)	358	N/A	OBS	0							
Flow (Gallons Per Min)	4	N/A	OBS	0							
Water Temp (Deg C)	6.1	N/A	OBS	0							

SAMPLE NO BBC-1905-101 LAB NO: z STATION:SW-19

PARAMETER	05/29/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	9.05	N/A	OBS	0							
pH Fld (s.u.)	8.27	N/A	OBS	0							
SC Fld (umhos/cm)	364	N/A	OBS	0							
Flow (Cubic Ft Sec)	1.34	N/A	OBS	0							
Water Temp (Deg C)	11.3	N/A	OBS	0							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

APPENDIX 2

DATABASE

Analyses Summary Report

Site Name: Black Butte Mine 7/15/2019 11:29:50 AM

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DS-1	DS-1	DS-10	DS-11
Water	Sample Date	5/30/2019	5/30/2019	5/29/2019	5/29/2019	5/29/2019	5/29/2019
	Sample Time	1:35:00 PM	2:10:00 PM	2:50:00 PM	3:00:00 PM	1:00:00 PM	11:25:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro
	Lab Number	H19050915-012	H19050914-008	H19050915-002	H19050915-003	z	z
	Sample Number	BBC-1905-127	BBC-1905-128	BBC-1905-107	BBC-1905-108	BBC-1905-104	BBC-1905-100
	Remarks				DUPLICATE		
Field Parameters	Multiple Units						
Dissolved Oxygen				916		9.26	11.48
Field pH				7.82		7.52	7.77
Field Specific Conductivity				421		401	421
Flow							
Flow				50.9		6.8	18.2
Staff Gauge							
Staff Gauge							
Water Temperature				8.3		5.9	4.8
Physical Parameters	mg/L						
Total Dissolved Solids		<10	<10	221	217		
Total Suspended Solids		<10	<4	<10	<10		
Major Constituents - Commons Ions	mg/L						
Alkalinity as CaCO3		<4	<4	220	220		
Calcium (DIS)		<1	<1	55	57		
Chloride		<1	<1	<1	<1		
Fluoride		<0.1	<0.1	0.1	0.1		
Hardness as CaCO3		<1	<1	220	226		
Magnesium (DIS)		<1	<1	20	20		
Potassium (DIS)		<1	<1	<1	<1		
Sodium (DIS)		<1	<1	2	2		
Sulfate		<1	<1	15	15		
Nutrients	mg/L						
Nitrate + Nitrite as N		<0.01	<0.01	0.13	0.13		
Phosphorus (TOT)			<0.003				
Total Persulfate Nitrogen			<0.04				
Metals - Trace Constituents	Multiple Units						
Aluminum (DIS)		<0.009	<0.009	<0.009	<0.009		
Antimony (DIS)		<0.0005		<0.0005	<0.0005		
Antimony (TRC)			<0.0005				
Arsenic (DIS)		<0.001		<0.001	<0.001		
Arsenic (TRC)			<0.001				
Barium (DIS)		<0.003		0.05	0.051		

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	DI-Blank	DI-Blank	DS-1	DS-1	DS-10	DS-11
Water	Sample Date	5/30/2019	5/30/2019	5/29/2019	5/29/2019	5/29/2019	5/29/2019
	Sample Time	1:35:00 PM	2:10:00 PM	2:50:00 PM	3:00:00 PM	1:00:00 PM	11:25:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro
	Lab Number	H19050915-012	H19050914-008	H19050915-002	H19050915-003	z	z
	Sample Number	BBC-1905-127	BBC-1905-128	BBC-1905-107	BBC-1905-108	BBC-1905-104	BBC-1905-100
	Remarks				DUPLICATE		

Metals - Trace Constituents	Multiple Units					
Barium (TRC)		<0.003				
Beryllium (DIS)	<0.0008		<0.0008	<0.0008		
Beryllium (TRC)		<0.0008				
Cadmium (DIS)	<0.00003		<0.00003	<0.00003		
Cadmium (TRC)		<0.00003				
Chromium (DIS)	<0.01		<0.01	<0.01		
Chromium (TRC)		<0.01				
Cobalt (DIS)	<0.01		<0.01	<0.01		
Cobalt (TRC)		<0.01				
Copper (DIS)	<0.002		<0.002	<0.002		
Copper (TRC)		<0.002				
Iron (DIS)	<0.02		<0.02	<0.02		
Iron (TRC)		0.03				
Lead (DIS)	<0.0003		<0.0003	<0.0003		
Lead (TRC)		<0.0003				
Manganese (DIS)	<0.005		<0.005	<0.005		
Manganese (TRC)		<0.005				
Mercury (DIS)	<0.005		<0.005	<0.005		
Mercury (TRC)		<0.005				
Molybdenum (DIS)	<0.002		<0.002	<0.002		
Molybdenum (TRC)		<0.002				
Nickel (DIS)	<0.001		<0.001	<0.001		
Nickel (TRC)		<0.001				
Selenium (DIS)	<0.0002		<0.0002	<0.0002		
Selenium (TRC)		<0.0002				
Silver (DIS)	<0.0002		<0.0002	<0.0002		
Silver (TRC)		<0.0002				
Strontium (DIS)	<0.0002		0.105	0.106		
Strontium (TRC)		0.0004				
Thallium (DIS)	<0.0002		<0.0002	<0.0002		
Thallium (TRC)		<0.0002				
Uranium (DIS)	<0.0002		0.0006	0.0006		
Uranium (TRC)		<0.0002				

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DS-1	DS-1	DS-10	DS-11
Water	Sample Date	5/30/2019	5/30/2019	5/29/2019	5/29/2019	5/29/2019	5/29/2019
	Sample Time	1:35:00 PM	2:10:00 PM	2:50:00 PM	3:00:00 PM	1:00:00 PM	11:25:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro
	Lab Number	H19050915-012	H19050914-008	H19050915-002	H19050915-003	z	z
	Sample Number	BBC-1905-127	BBC-1905-128	BBC-1905-107	BBC-1905-108	BBC-1905-104	BBC-1905-100
	Remarks				DUPLICATE		
Metals - Trace Constituents	Multiple Units						
	Zinc (DIS)	<0.002		0.009	0.009		
	Zinc (TRC)		0.002				

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DS-2	DS-3	DS-4	DS-7	DS-8	DS-9
Water	Sample Date	5/29/2019	5/29/2019	5/29/2019	5/30/2019	5/29/2019	5/29/2019
	Sample Time	1:55:00 PM	4:15:00 PM	4:40:00 PM	12:00:00 PM	12:20:00 PM	12:40:00 PM
	Lab	Hydro	Energy Labs	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	z	H19050915-005	H19050915-006	z	z	z
	Sample Number	BBC-1905-105	BBC-1905-112	BBC-1905-113	BBC-1905-122	BBC-1905-102	BBC-1905-103
	Remarks						

Field Parameters	Multiple Units					
Dissolved Oxygen	9.9	7.24	8.78	11.63	10.13	9.69
Field pH	7.61	6.89	6.58	7.66	7.81	7.87
Field Specific Conductivity	193	40	92	250	395	358
Flow						
Flow	3.9	12.1	NM	8	8.1	4
Staff Gauge						
Staff Gauge						
Water Temperature	8	4.7	5.9	7	4.3	6.1
Physical Parameters	mg/L					
Total Dissolved Solids		64	90			
Total Suspended Solids		<10	62			
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3		18	41			
Calcium (DIS)		5	13			
Chloride		<1	<1			
Fluoride		<0.1	<0.1			
Hardness as CaCO3		19	43			
Magnesium (DIS)		1	3			
Potassium (DIS)		<1	<1			
Sodium (DIS)		1	1			
Sulfate		1	3			
Nutrients	mg/L					
Nitrate + Nitrite as N		0.11	0.24			
Phosphorus (TOT)						
Total Persulfate Nitrogen						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)		2	1.35			
Antimony (DIS)		<0.0005	<0.0005			
Antimony (TRC)						
Arsenic (DIS)		<0.001	0.001			
Arsenic (TRC)						
Barium (DIS)		0.229	0.327			

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	DS-2	DS-3	DS-4	DS-7	DS-8	DS-9
Water	Sample Date	5/29/2019	5/29/2019	5/29/2019	5/30/2019	5/29/2019	5/29/2019
	Sample Time	1:55:00 PM	4:15:00 PM	4:40:00 PM	12:00:00 PM	12:20:00 PM	12:40:00 PM
	Lab	Hydro	Energy Labs	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	z	H19050915-005	H19050915-006	z	z	z
	Sample Number	BBC-1905-105	BBC-1905-112	BBC-1905-113	BBC-1905-122	BBC-1905-102	BBC-1905-103
	Remarks						

Metals - Trace Constituents Multiple Units		
Barium (TRC)		
Beryllium (DIS)	<0.0008	<0.0008
Beryllium (TRC)		
Cadmium (DIS)	<0.00003	<0.00003
Cadmium (TRC)		
Chromium (DIS)	<0.01	<0.01
Chromium (TRC)		
Cobalt (DIS)	<0.01	<0.01
Cobalt (TRC)		
Copper (DIS)	0.004	0.002
Copper (TRC)		
Iron (DIS)	1.2	0.82
Iron (TRC)		
Lead (DIS)	0.0003	<0.0003
Lead (TRC)		
Manganese (DIS)	0.008	0.005
Manganese (TRC)		
Mercury (DIS)	0.02 D	0.008
Mercury (TRC)		
Molybdenum (DIS)	<0.002	<0.002
Molybdenum (TRC)		
Nickel (DIS)	0.004	0.002
Nickel (TRC)		
Selenium (DIS)	<0.0002	<0.0002
Selenium (TRC)		
Silver (DIS)	<0.0002	<0.0002
Silver (TRC)		
Strontium (DIS)	0.0231	0.0425
Strontium (TRC)		
Thallium (DIS)	<0.0002	<0.0002
Thallium (TRC)		
Uranium (DIS)	<0.0002	<0.0002
Uranium (TRC)		

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DS-2	DS-3	DS-4	DS-7	DS-8	DS-9
Water	Sample Date	5/29/2019	5/29/2019	5/29/2019	5/30/2019	5/29/2019	5/29/2019
	Sample Time	1:55:00 PM	4:15:00 PM	4:40:00 PM	12:00:00 PM	12:20:00 PM	12:40:00 PM
	Lab	Hydro	Energy Labs	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	z	H19050915-005	H19050915-006	z	z	z
	Sample Number	BBC-1905-105	BBC-1905-112	BBC-1905-113	BBC-1905-122	BBC-1905-102	BBC-1905-103
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Zinc (DIS)		0.006	0.004			
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 7/15/2019 11:29:50 AM

Sample Type:	Station (Site)	SP-10	SP-11	SP-12	SP-3	SP-4	SP-6
Water	Sample Date	5/29/2019	5/29/2019	5/30/2019	5/29/2019	5/30/2019	5/30/2019
	Sample Time	2:20:00 PM	3:30:00 PM	12:45:00 PM	5:00:00 PM	12:25:00 PM	12:15:00 PM
	Lab	Energy Labs	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19050915-001	z	H19050915-010	H19050915-007	H19050915-009	H19050915-008
	Sample Number	BBC-1905-106	BBC-1905-110	BBC-1905-125	BBC-1905-114	BBC-1905-124	BBC-1905-123
	Remarks						

Field Parameters	Multiple Units					
Dissolved Oxygen	8.88		10.38	9.39	11.12	11.61
Field pH	7.98		7.84	7.16	7.84	7.96
Field Specific Conductivity	372		446	111	430	248
Flow						
Flow	54.8	NM	NM	8.1	34.56	3.5
Staff Gauge						
Staff Gauge						
Water Temperature	10.1		5.5	5.4	7.8	6.8
Physical Parameters	mg/L					
Total Dissolved Solids	196		246	119	235	149
Total Suspended Solids	<10		115	<10	<10	<10
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	200		210	48	200	130
Calcium (DIS)	51		50	17	46	32
Chloride	<1		10	1	<1	<1
Fluoride	0.1		0.2	0.1	0.2	0.1
Hardness as CaCO3	202		214	57	214	129
Magnesium (DIS)	18		21	4	24	12
Potassium (DIS)	<1		1	1	2	<1
Sodium (DIS)	1		2	2	2	2
Sulfate	11		13	7	34	10
Nutrients	mg/L					
Nitrate + Nitrite as N	0.06		0.12	0.1	0.24	0.41
Phosphorus (TOT)						
Total Persulfate Nitrogen						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009		<0.009	1.2	<0.009	<0.009
Antimony (DIS)	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005
Antimony (TRC)						
Arsenic (DIS)	<0.001		<0.001	0.002	<0.001	<0.001
Arsenic (TRC)						
Barium (DIS)	0.046		0.16	0.214	0.108	0.185

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	SP-10	SP-11	SP-12	SP-3	SP-4	SP-6
Water	Sample Date	5/29/2019	5/29/2019	5/30/2019	5/29/2019	5/30/2019	5/30/2019
	Sample Time	2:20:00 PM	3:30:00 PM	12:45:00 PM	5:00:00 PM	12:25:00 PM	12:15:00 PM
	Lab	Energy Labs	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19050915-001	z	H19050915-010	H19050915-007	H19050915-009	H19050915-008
	Sample Number	BBC-1905-106	BBC-1905-110	BBC-1905-125	BBC-1905-114	BBC-1905-124	BBC-1905-123
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Barium (TRC)						
	Beryllium (DIS)	<0.0008		<0.0008	<0.0008	<0.0008	<0.0008
	Beryllium (TRC)						
	Cadmium (DIS)	<0.00003		<0.00003	0.00003	<0.00003	<0.00003
	Cadmium (TRC)						
	Chromium (DIS)	<0.01		<0.01	<0.01	<0.01	<0.01
	Chromium (TRC)						
	Cobalt (DIS)	<0.01		<0.01	<0.01	<0.01	<0.01
	Cobalt (TRC)						
	Copper (DIS)	<0.002		<0.002	0.004	<0.002	<0.002
	Copper (TRC)						
	Iron (DIS)	<0.02		0.07	0.81	<0.02	<0.02
	Iron (TRC)						
	Lead (DIS)	<0.0003		<0.0003	0.0003	<0.0003	<0.0003
	Lead (TRC)						
	Manganese (DIS)	<0.005		0.017	0.005	<0.005	<0.005
	Manganese (TRC)						
	Mercury (DIS)	<0.005		0.005	0.02	<0.005	<0.005
	Mercury (TRC)						
	Molybdenum (DIS)	<0.002		<0.002	<0.002	<0.002	<0.002
	Molybdenum (TRC)						
	Nickel (DIS)	<0.001		<0.001	0.003	<0.001	<0.001
	Nickel (TRC)						
	Selenium (DIS)	<0.0002		0.0002	<0.0002	0.0003	<0.0002
	Selenium (TRC)						
	Silver (DIS)	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002
	Silver (TRC)						
	Strontium (DIS)	0.102		0.103	0.0473	0.0698	0.0697
	Strontium (TRC)						
	Thallium (DIS)	<0.0002		<0.0002	<0.0002	0.0003	0.0004
	Thallium (TRC)						
	Uranium (DIS)	0.0007		0.0006	<0.0002	0.0004	0.0004
	Uranium (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-10	SP-11	SP-12	SP-3	SP-4	SP-6
Water	Sample Date	5/29/2019	5/29/2019	5/30/2019	5/29/2019	5/30/2019	5/30/2019
	Sample Time	2:20:00 PM	3:30:00 PM	12:45:00 PM	5:00:00 PM	12:25:00 PM	12:15:00 PM
	Lab	Energy Labs	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19050915-001	z	H19050915-010	H19050915-007	H19050915-009	H19050915-008
	Sample Number	BBC-1905-106	BBC-1905-110	BBC-1905-125	BBC-1905-114	BBC-1905-124	BBC-1905-123
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Zinc (DIS)	<0.002		<0.002	0.004	<0.002	<0.002
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 7/15/2019 11:29:50 AM

Sample Type:	Station (Site)	SP-7	SW-1	SW-1	SW-14	SW-14	SW-17
Water	Sample Date	5/30/2019	5/30/2019	5/30/2019	5/30/2019	5/30/2019	5/30/2019
	Sample Time	1:10:00 PM	8:40:00 AM	8:40:00 AM	10:10:00 AM	10:20:00 AM	9:55:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19050915-011	H19050914-001	H19050914-001	H19050914-003	H19050914-004	H19050914-002
	Sample Number	BBC-1905-126	BBC-1905-115	BBC-1905-115	BBC-1905-117	BBC-1905-118	BBC-1905-116
	Remarks					DUPLICATE	

Field Parameters	Multiple Units					
Dissolved Oxygen	4.08		14	10.99		12.9
Field pH	7.36		8.24	8.02		8.07
Field Specific Conductivity	334		193	387		360
Flow			199.5	5.87		1.37
Flow	19.7					
Staff Gauge						
Staff Gauge		1.98		0.8		
Water Temperature	7		5.1	8.3		7.01
Physical Parameters	mg/L					
Total Dissolved Solids	180		116 D	222 D	216 D	201 D
Total Suspended Solids	<10		16	<4	<4	<4
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	170		98	200	200	170
Calcium (DIS)	41		28	53	49	45
Chloride	2		1	2	2	5
Fluoride	0.3		<0.1	0.2	0.2	0.2
Hardness as CaCO3	161		100	210	196	194
Magnesium (DIS)	14		7	19	18	20
Potassium (DIS)	3		<1	1	1	<1
Sodium (DIS)	5		1	2	2	2
Sulfate	12		4	11	11	18
Nutrients	mg/L					
Nitrate + Nitrite as N	0.31		<0.01	0.04	0.05	0.03
Phosphorus (TOT)			0.021	0.008	0.008	0.01
Total Persulfate Nitrogen			0.15	0.2	0.21	0.2
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009		0.062	<0.009	<0.009	<0.009
Antimony (DIS)	<0.0005					
Antimony (TRC)			<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (DIS)	0.004					
Arsenic (TRC)			<0.001	<0.001	<0.001	<0.001
Barium (DIS)	0.113					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- J: The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-7	SW-1	SW-1	SW-14	SW-14	SW-17
Water	Sample Date	5/30/2019	5/30/2019	5/30/2019	5/30/2019	5/30/2019	5/30/2019
	Sample Time	1:10:00 PM	8:40:00 AM	8:40:00 AM	10:10:00 AM	10:20:00 AM	9:55:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19050915-011	H19050914-001	H19050914-001	H19050914-003	H19050914-004	H19050914-002
	Sample Number	BBC-1905-126	BBC-1905-115	BBC-1905-115	BBC-1905-117	BBC-1905-118	BBC-1905-116
	Remarks					DUPLICATE	
Metals - Trace Constituents	Multiple Units						
Barium (TRC)			0.081	0.103	0.103	0.122	
Beryllium (DIS)	<0.0008						
Beryllium (TRC)			<0.0008	<0.0008	<0.0008	<0.0008	
Cadmium (DIS)	<0.00003						
Cadmium (TRC)			<0.00003	<0.00003	<0.00003	<0.00003	
Chromium (DIS)	<0.01						
Chromium (TRC)			<0.01	<0.01	<0.01	<0.01	
Cobalt (DIS)	<0.01						
Cobalt (TRC)			<0.01	<0.01	<0.01	<0.01	
Copper (DIS)	<0.002						
Copper (TRC)			<0.002	<0.002	<0.002	<0.002	
Iron (DIS)	<0.02						
Iron (TRC)			0.6	0.06 B	0.06 B	0.16	
Lead (DIS)	<0.0003						
Lead (TRC)			0.0003	<0.0003	<0.0003	<0.0003	
Manganese (DIS)	<0.005						
Manganese (TRC)			0.015	0.005	0.005	0.016	
Mercury (DIS)	<0.005						
Mercury (TRC)			0.011	0.005	0.005	0.007	
Molybdenum (DIS)	<0.002						
Molybdenum (TRC)			<0.002	<0.002	<0.002	<0.002	
Nickel (DIS)	<0.001						
Nickel (TRC)			0.001	<0.001	<0.001	<0.001	
Selenium (DIS)	0.0003						
Selenium (TRC)			<0.0002	<0.0002	<0.0002	<0.0002	
Silver (DIS)	<0.0002						
Silver (TRC)			<0.0002	<0.0002	<0.0002	<0.0002	
Strontium (DIS)	0.165						
Strontium (TRC)			0.0896 L	0.115 L	0.116 L	0.111 L	
Thallium (DIS)	0.001						
Thallium (TRC)			<0.0002	<0.0002	<0.0002	<0.0002	
Uranium (DIS)	0.0009						
Uranium (TRC)			0.0002	0.0005	0.0005	0.0005	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-7	SW-1	SW-1	SW-14	SW-14	SW-17
Water	Sample Date	5/30/2019	5/30/2019	5/30/2019	5/30/2019	5/30/2019	5/30/2019
	Sample Time	1:10:00 PM	8:40:00 AM	8:40:00 AM	10:10:00 AM	10:20:00 AM	9:55:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19050915-011	H19050914-001	H19050914-001	H19050914-003	H19050914-004	H19050914-002
	Sample Number	BBC-1905-126	BBC-1905-115	BBC-1905-115	BBC-1905-117	BBC-1905-118	BBC-1905-116
	Remarks					DUPLICATE	
Metals - Trace Constituents	Multiple Units						
	Zinc (DIS)	<0.002					
	Zinc (TRC)			0.002 B	<0.002	<0.002	<0.002

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 7/15/2019 11:29:50 AM

Sample Type:	Station (Site)	SW-18	SW-19	SW-2	SW-3	SW-7	USGS-SC1
Water	Sample Date	5/29/2019	5/29/2019	5/30/2019	5/30/2019	5/29/2019	5/30/2019
	Sample Time	3:35:00 PM	11:50:00 AM	10:45:00 AM	11:40:00 AM	3:15:00 PM	11:10:00 AM
	Lab	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	z	z	H19050914-005	H19050914-007	H19050915-004	H19050914-006
	Sample Number	BBC-1905-111	BBC-1905-101	BBC-1905-119	BBC-1905-121	BBC-1905-109	BBC-1905-120
	Remarks						

Field Parameters	Multiple Units					
Dissolved Oxygen		9.05	12.85	11.41	8.67	12.86
Field pH		8.27	8.35	8.34	7.84	8.41
Field Specific Conductivity		364	201	308	409	251
Flow		1.34	NM	0.18		NM
Flow	NM				25.1	
Staff Gauge			1.75			
Staff Gauge						
Water Temperature		11.3	4.9	8.9	9.3	4.6
Physical Parameters	mg/L					
Total Dissolved Solids			115 D	200 D	214	132 D
Total Suspended Solids			15	<4	10	19
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3			100	180	220	130
Calcium (DIS)			28	44	55	37
Chloride			1	2	<1	1
Fluoride			<0.1	0.2	0.1	<0.1
Hardness as CaCO3			98	195	209	128
Magnesium (DIS)			7	21	17	9
Potassium (DIS)			<1	<1	<1	1
Sodium (DIS)			2	2	2	2
Sulfate			4	18	10	5
Nutrients	mg/L					
Nitrate + Nitrite as N			<0.01	<0.01	0.04	<0.01
Phosphorus (TOT)			0.017	0.006		0.018
Total Persulfate Nitrogen			0.12	0.12		0.12
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)			0.051	<0.009	<0.009	0.023
Antimony (DIS)					<0.0005	
Antimony (TRC)			<0.0005	<0.0005		<0.0005
Arsenic (DIS)					<0.001	
Arsenic (TRC)			<0.001	<0.001		<0.001
Barium (DIS)					0.049	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	SW-18	SW-19	SW-2	SW-3	SW-7	USGS-SC1
Water	Sample Date	5/29/2019	5/29/2019	5/30/2019	5/30/2019	5/29/2019	5/30/2019
	Sample Time	3:35:00 PM	11:50:00 AM	10:45:00 AM	11:40:00 AM	3:15:00 PM	11:10:00 AM
	Lab	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	z	z	H19050914-005	H19050914-007	H19050915-004	H19050914-006
	Sample Number	BBC-1905-111	BBC-1905-101	BBC-1905-119	BBC-1905-121	BBC-1905-109	BBC-1905-120
	Remarks						

Metals - Trace Constituents Multiple Units					
Barium (TRC)	0.073	0.133		0.061	
Beryllium (DIS)			<0.0008		
Beryllium (TRC)	<0.0008	<0.0008		<0.0008	
Cadmium (DIS)			<0.00003		
Cadmium (TRC)	<0.00003	<0.00003		<0.00003	
Chromium (DIS)			<0.01		
Chromium (TRC)	<0.01	<0.01		<0.01	
Cobalt (DIS)			<0.01		
Cobalt (TRC)	<0.01	<0.01		<0.01	
Copper (DIS)			<0.002		
Copper (TRC)	<0.002	<0.002		<0.002	
Iron (DIS)			<0.02		
Iron (TRC)	0.55	0.03 B		0.67	
Lead (DIS)			<0.0003		
Lead (TRC)	<0.0003	<0.0003		0.0003	
Manganese (DIS)			<0.005		
Manganese (TRC)	0.012	<0.005		0.013	
Mercury (DIS)			<0.005		
Mercury (TRC)	0.01	<0.005		0.01 D	
Molybdenum (DIS)			<0.002		
Molybdenum (TRC)	<0.002	<0.002		<0.002	
Nickel (DIS)			<0.001		
Nickel (TRC)	0.001	<0.001		0.002	
Selenium (DIS)			<0.0002		
Selenium (TRC)	<0.0002	<0.0002		<0.0002	
Silver (DIS)			<0.0002		
Silver (TRC)	<0.0002	<0.0002		<0.0002	
Strontium (DIS)			0.131		
Strontium (TRC)	0.0946 L	0.1 L		0.119 L	
Thallium (DIS)			<0.0002		
Thallium (TRC)	<0.0002	<0.0002		<0.0002	
Uranium (DIS)			0.0006		
Uranium (TRC)	0.0002	0.0006		0.0003	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-18	SW-19	SW-2	SW-3	SW-7	USGS-SC1
Water	Sample Date	5/29/2019	5/29/2019	5/30/2019	5/30/2019	5/29/2019	5/30/2019
	Sample Time	3:35:00 PM	11:50:00 AM	10:45:00 AM	11:40:00 AM	3:15:00 PM	11:10:00 AM
	Lab	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	z	z	H19050914-005	H19050914-007	H19050915-004	H19050914-006
	Sample Number	BBC-1905-111	BBC-1905-101	BBC-1905-119	BBC-1905-121	BBC-1905-109	BBC-1905-120
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Zinc (DIS)					<0.002	
	Zinc (TRC)			0.004 B	<0.002		0.002 B

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

QUALITY CONTROL / QUALITY ASSURANCE
DATA VERIFICATION REPORT

BLACK BUTTE COPPER
WATER RESOURCE MONITORING

JUNE 2019

Prepared by
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3020 Bozeman Avenue
Helena, MT 59601

JULY 2019

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APPENDIX 2: DATABASE SUMMARY REPORT

GLOSSARY OF TERMS

CCB ..... Continuing Calibration Blank

CCV ..... Continuing Calibration Verification

CLP ..... Contract Laboratory Program

CRDL..... Contract Required Detection Limit

DIé é é é é Deionized Water

FAA ..... Flame Atomic Absorption

GFAA..... Graphite Furnace Atomic Absorption

HGAA ..... Hydride Generation Atomic Absorption

ICB..... Initial Calibration Blank

ICP ..... Inductively Coupled Plasma

ICV ..... Initial Calibration Verification

IDL..... Instrument Detection Limit

LCS ..... Laboratory Control Sample

MSA..... Method of Standard Additions

PB ..... Preparation Blank

PRDL ..... Project Required Detection Limit

QAPP ..... Quality Assurance Project Plan

QC..... Quality Control

RPD..... Relative Percent Difference

RSD..... Relative Standard Deviation

SOW..... Statement of Work

TDS..... Total Dissolved Solids

DATA VALIDATION REPORT

1. INTRODUCTION

This validation applies to 72 samples collected for the Black Butte Tintina surface water and groundwater monitoring program. All sampling occurred in June 2019. All samples were submitted to Energy Laboratories in Helena, Montana and were assigned Laboratory IDs: H19060535, H19060528, H19060526 and H19060536. The total number of samples included: 50 groundwater and surface water samples including 3 field duplicates, and 4 field deionized (DI and Rinsate) blanks and 15 field site observations.

- Validation procedures used are generally consistent with:
  (Check all that apply)
  _X_ EPA CLP National Functional Guidelines for Inorganics Data Review
  _X_ EPA CLP National Functional Guidelines for Organic Data Review
  _X_ Montana Department of Environmental Quality, Data Validation Guidelines for Evaluating Analytical Data, Hydrometrics, September 2010

2. DELIVERABLES

- All laboratory document deliverables were present as specified in the CLP-Statement of Work and/or the project contract
  _X_ Yes
  ___No

- All documentation of field procedures was provided as required
  _X_ Yes
  ___No

3. FIELD QUALITY CONTROL SAMPLES

- Field blanks
  Please note that the highest blank value associated with any particular analyte is the blank value used for the flagging process.
  DI, trip, rinsate, or any other field blanks have been carried out at the proper frequency
  _X_ Yes
  ___No

  Reported results on the field blanks are less than the contract required detection limits (CRDL) or the project required detection limits (PRDL) if project detection limits have been specified
  _X_ Yes
  ___No

  Field duplicates have been collected at the proper frequency
  _X_ Yes
  ___No

  Field duplicate relative percent differences (RPDs) were within the required control limits (25 percent or less for water matrix and 50 percent or less for soil matrix)
  ___Yes
  _X_ No ï see following table

Date	Site Code	Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Number of Flags
6/20/19	SW-6	Total Phosphorus	0.018	0.025	9
		TRC Zinc	0.006	0.003	9

J ï Duplicate exceeded QA/QC comparison control limits.

- **NOTES**: It should be noted that the above listed analysis results exceeded the reporting limits and results were confirmed by duplicate analysis from the laboratory.

4. LABORATORY PROCEDURES

- Laboratory Case Narrative Notes any non conformance issues with the analytical data
  ___Yes
  ___No
  _X_NA

- Samples were received by the laboratory at the proper temperature
  _X_Yes
  ___No

- Holding times met
  ___Yes
  _X_No ï see following notes
  NOTES: In the Energy Laboratory analytical summary reports, sample BBC-1906-221 had Total Alkalinity analysis that was flagged by the laboratory for being performed past recommended holding time (H).

- Consistency with project requirements
  _X_Yes
  ___No

- Sample Conditions met at Check-in
  _X_Yesï see following notes
  ___No
  NOTES: In the Energy Laboratory sample check-in receipt the following was noted:
  H19060536- Sample Id on nutrients bottle in sample set BBC-1906-103 is BBC-1906-. The Sample Id from the chain of custody was used. No time was noted on bottle for dissolved metals for sample BBC-1906-111; time from COC was used.
  H19060535- Lids for 1 liter unpreserved for samples BBC-1906-133 and BBC-1906-134 were switched.
  H19060528—Nutrients sample(s) BBC-1906-212 and BBC-1906-216 were preserved to pH <2 with 2 ml of sulfuric acid per 250 mL in lab upon receipt. Metal samples BBC-1906-212 and BBC-1906-216 were preserved to pH <2 in lab upon receipt as well.

- Reporting units appropriate for the associated sample matrix and methods of analysis
  _X_Yes
  ___No

- Project specified methods were used
  _X_Yesï see following list of methods used
  ___No
  NOTES: It should be noted that parameters were analyzed using different methods than requested; however, all methods used by the laboratory are comparable. The following methods were used during analyses: A2540D, A2540C, A2320B, E300.0, A4500-F C, A2340B, E353.2, A4500-N C, E365.1, E200.8, and E200.7.

- Detection Limits met project required detection limits (PRDL)

_X_ Yesï see following notes
___No

NOTES: It should be noted that total dissolved solids and nickel had a reporting limit increases due to sample matrix interference (D). TDS had a limit of 10 mg/l used not the requested 4 mg/l. Strontium had the 0.0003 mg/l reporting limit was used in place of the requested 0.0002 mg/l; however, values were flagged with an L to indicate that the lowest available reporting limit was used per method used for analysis. In addition, a reporting limit of 0.01 mg/l was used for nitrate + nitrite as n as replacement of the 0.003 mg/l requested.

5. INITIAL OR CONTINUING CALIBRATION VERIFICATION RESULTS

- Initial or Continuing Calibration Verification samples were within acceptable limits
  _X_ Yes
  ___No

6. LABORATORY BLANKS

- **PREPARATION/METHOD BLANKS**

  Preparation/Method blanks were prepared and analyzed at the required frequency
  _X_ Yes
  ___No

  All analytes in the preparation blank were less than the CRDL (or PRDL if a project detection limit has been specified)
  _X_ Yes
  ___No

7. MATRIX SPIKE /MATRIX SPIKE DUPLICATES (MS/MSD)

- Matrix spike samples were analyzed at the proper frequency
  _X_ Yes
  ____No

- Matrix spike recoveries were within control limits
  ___Yes
  _X_ No ï see following table

QC Sample ID	Parameter	% REC	Lab Flag	Lab Advisory Limits (% REC)
H19060487-003BMS	Silver	48	S	70-130
H19060528-001BMS	Silver	68	S	70-130

S ï Spike recovery outside of recovery limits

- Matrix spike RPDôs were within control limits
  _X_ Yes
  ____No

- Matrix spike duplicate samples were analyzed at the proper frequency
  _X_ Yes
  ____No

- Matrix spike duplicate RPDôs were within control limits
  _X_ Yes
  ____No

- Matrix spike duplicate recoveries were within the laboratory specified control limits.

___Yes
_X_No ï see following table

QC Sample ID	Parameter	% REC	Lab Flag	Lab Advisory Limits (% REC)
H19060536-005AMSD	Total Nitrogen	87	S	90-110
H19060534-044GMSD	Total Phosphorus	111	S	90-110
H19060536-010DMSD	Total Phosphorus	111	S	90-110
H19060536-002BMSD	Silver	68	S	70-130

S ï Spike recovery outside of recovery limits

8. LABORATORY CONTROL SAMPLES

- LCS Samples

Laboratory Control Samples used the correct matrix and concentrations
___Yes
___No
_X_NA

Laboratory Control Samples were prepared and analyzed at the required frequency
___Yes
___No
_X_NA

All analytes in the laboratory control samples were less than the control limits specified
_X_Yes
___No

9. DATA QUALITY OBJECTIVES

- Project data quality objectives (DQOs) met

_X_Yes
___No

Accuracy

Accuracy for this project is the degree of agreement between an analytical measurement and a reference accepted as a true value. The accuracy of a measurement system can be affected by errors introduced by field contamination, sample preservation, sample handling, sample preparation and analytical techniques. Analysis of MS/MSD samples, laboratory control spikes (LCS) or blank spikes, surrogate standards and method blanks are typically used to calculate the percent recovery for evaluating accuracy. Accuracy for this sampling event was 99 percent.

Precision

Precision for this project is the degree of mutual agreement between individual measurements of the same property under similar conditions. Combined field and laboratory precision is evaluated by collecting and analyzing field duplicate and then calculating the variance between the samples, typically as a relative percent difference (RPD). Laboratory analytical precision is evaluated by analyzing matrix spike/matrix spike duplicate samples and using the results to calculate an RPD. The combined precision was 99 percent for this sampling event for both laboratory and field.

Representativeness

Representativeness for this project is the degree to which sample data accurately and precisely represent the characteristics of a population, and variations in a parameter at a sampling point or an environmental condition that they are intended to represent. Typically representative data will be obtained through careful selection of sampling locations and analytical parameters; proper collection and handling of samples and through use and consistent application of established field and laboratory procedures. Evaluation of field and laboratory blank samples for presence of contaminants can be useful in evaluating representativeness of sample results. Both laboratory and field representativeness for this sampling event was 100 percent.

Completeness

The target completeness for this project is the percent of the measurements valid (not rejected). Valid data are obtained when samples are collected and analyzed in accordance with quality control procedures outlined in the SAP, and when none of the QC criteria that affect data usability are exceeded. Once data validation is complete the number of useable sample results is divided by the total number of sample results planned for the investigation to determine the percent completeness. Completeness for this sampling event was 100 percent.

Comparability

Comparability is the expression of the confidence with which one data set can be compared with another. Comparability of data is achieved by consistently following standard field and laboratory procedures and by using standard measurement units in reporting analytical data. This criterion was met.

REFERENCES

Montana Department of Environmental Quality, Data Validation Guidelines for Evaluating Analytical Data (Updated August 5, 2010)

EPA, 2017a. National Functional Guidelines for Organic Superfund Methods Data Review. EPA-540-R-2017-002. Office of Superfund Remediation and Technology Innovation. January 2017.

EPA, 2017b. National Functional Guidelines for Inorganic Superfund Methods Data Review. EPA-540-R-2017-001. Office of Superfund Remediation and Technology Innovation. January 2017.

Hem, J.D., 1992. Study and Interpretation of the Chemical Characteristics of Natural Water, 3rd edition. US Geological Survey Water Supply Paper 2254.

APPENDIX 1

TABLES

TABLE 1.

DATA VALIDATION CODES AND DEFINITIONS

CODE	DEFINITION
J	-The associated numerical value is an estimated quantity because quality control criteria were not met.
B	- Blank contamination. Indicates possible high bias and / or false positive. The associated value is an estimate.
R	- Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis is necessary for verification.
A	- Anomalous data. No apparent explanation for discrepancy in data. (Not an EPA code.)

Table 2. Summary of Flagged Data

StationName	Sample Date	Field Sample Id	Lab Name	Lab Sample Id	Parameter Name	Sample Result	Reporting Units	Validation Flag	Exceedance Type
SW-1	6/19/2019	BBC-1906-109	Energy Labs	H19060536-002	Phosphorus (TOT)	0.018	mg/L	J	Duplicate Exceedance
SW-1	6/19/2019	BBC-1906-109	Energy Labs	H19060536-002	Zinc (TRC)	0.003	mg/L	J	Duplicate Exceedance
SW-11	6/18/2019	BBC-1906-103	Energy Labs	H19060536-001	Phosphorus (TOT)	0.03	mg/L	J	Duplicate Exceedance
SW-11	6/18/2019	BBC-1906-103	Energy Labs	H19060536-001	Zinc (TRC)	0.004	mg/L	J	Duplicate Exceedance
SW-14	6/19/2019	BBC-1906-126	Energy Labs	H19060536-007	Phosphorus (TOT)	0.011	mg/L	J	Duplicate Exceedance
SW-14	6/19/2019	BBC-1906-126	Energy Labs	H19060536-007	Zinc (TRC)	<0.002	mg/L	J	Duplicate Exceedance
SW-17	6/19/2019	BBC-1906-122	Energy Labs	H19060536-005	Phosphorus (TOT)	0.025	mg/L	J	Duplicate Exceedance
SW-17	6/19/2019	BBC-1906-122	Energy Labs	H19060536-005	Zinc (TRC)	0.004	mg/L	J	Duplicate Exceedance
SW-2	6/19/2019	BBC-1906-110	Energy Labs	H19060536-003	Phosphorus (TOT)	0.013	mg/L	J	Duplicate Exceedance
SW-2	6/19/2019	BBC-1906-110	Energy Labs	H19060536-003	Zinc (TRC)	0.002	mg/L	J	Duplicate Exceedance
SW-3	6/19/2019	BBC-1906-123	Energy Labs	H19060536-006	Phosphorus (TOT)	0.009	mg/L	J	Duplicate Exceedance
SW-3	6/19/2019	BBC-1906-123	Energy Labs	H19060536-006	Zinc (TRC)	0.002	mg/L	J	Duplicate Exceedance
SW-6	6/20/2019	BBC-1906-129	Energy Labs	H19060536-009	Phosphorus (TOT)	0.018	mg/L	J	Duplicate Exceedance
SW-6	6/20/2019	BBC-1906-129	Energy Labs	H19060536-009	Zinc (TRC)	0.006	mg/L	J	Duplicate Exceedance
SW-6	6/20/2019	BBC-1906-130	Energy Labs	H19060536-010	Phosphorus (TOT)	0.025	mg/L	J	Duplicate Exceedance
SW-6	6/20/2019	BBC-1906-130	Energy Labs	H19060536-010	Zinc (TRC)	0.003	mg/L	J	Duplicate Exceedance
USGS-SC1	6/19/2019	BBC-1906-111	Energy Labs	H19060536-004	Phosphorus (TOT)	0.009	mg/L	J	Duplicate Exceedance
USGS-SC1	6/19/2019	BBC-1906-111	Energy Labs	H19060536-004	Zinc (TRC)	0.002	mg/L	J	Duplicate Exceedance

Black Butte Mine Data Comparison Summary

Report Date: July 31, 2019

SAMPLE NO BBC-1906-132	LAB NO: H19060535-011	STATION:DS-1

06/20/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	8.83	03/25/15-06/20/19	O	32	32	8.15	916.0	11.11	9.49	160.22	0.01	
pH Fld (s.u.)	7.73	03/25/15-06/20/19	O	31	31	7.36	8.56	7.77	7.77	0.29	0.14	
SC Fld (umhos/cm)	415	03/25/15-06/20/19	O	32	32	337.0	698.7	420.5	419	55.4	0.1	
Flow (Gallons Per Min)	22.67	03/25/15-06/20/19	O	28	28	0.06	62.27	5.75	7.65	15.5	1.09	
Water Temp (Deg C)	7.1	03/25/15-06/20/19	O	32	32	0.5	18.3	5.4	7.1	3.3	0.5	
TDS (mg/L)	231	03/25/15-06/20/19	O	32	32	203.0	245.0	230.5	231	9.8	0.1	
TSS (mg/L)	< 10	03/25/15-06/20/19	O	32	10	< 10	1130.0					
Tot Alk (mg/L)	210	03/25/15-06/20/19	O	32	32	180.0	220.0	214.8	220	8.4	0.6	
Ca (mg/L)	57	05/29/19-06/20/19	O	2	2	55.0	57.0	56.0	56	1.4	0.7	H
Chloride (mg/L)	< 1	03/25/15-06/20/19	O	32	0	< 1	< 1					
F (mg/L)	< 0.1	03/25/15-06/20/19	O	32	29	0.1	0.1	0.1	0.1	0	0.0	H
Tot Hard (mg/L)	227	03/25/15-06/20/19	O	32	32	185.0	249.0	228.3	229	12.1	0.1	
Mg (mg/L)	21	05/29/19-06/20/19	O	2	2	20.0	21.0	20.5	20.5	0.7	0.7	H
K (mg/L)	< 1	05/29/19-06/20/19	O	2	0	< 1	< 1					
Na (mg/L)	2	05/29/19-06/20/19	O	2	2	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	15	03/25/15-06/20/19	O	32	32	11.0	18.0	14.7	15	1.7	0.2	
Nitrate + (mg/L)	0.16	03/25/15-06/20/19	O	32	32	0.03	0.26	0.17	0.19	0.05	0.26	
Al (DIS) (mg/L)	< 0.009	05/29/19-06/20/19	O	2	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	05/29/19-06/20/19	O	2	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	05/29/19-06/20/19	O	2	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.05	05/29/19-06/20/19	O	2	2	0.05	0.05	0.05	0.05	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	05/29/19-06/20/19	O	2	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	05/29/19-06/20/19	O	2	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	05/29/19-06/20/19	O	2	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	05/29/19-06/20/19	O	2	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	05/29/19-06/20/19	O	2	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	05/29/19-06/20/19	O	2	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	05/29/19-06/20/19	O	2	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	05/29/19-06/20/19	O	2	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	05/29/19-06/20/19	O	2	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	05/29/19-06/20/19	O	2	0	< 0.002	< 0 .002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Ni (DIS) (mg/L)	< 0.001	05/29/19-06/20/19	O	2	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	05/29/19-06/20/19	O	2	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	05/29/19-06/20/19	O	2	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.107	05/29/19-06/20/19	O	2	2	0.105	0.107	0.106	0.106	0.001	1.005	H
Tl (DIS) (mg/L)	< 0.0002	05/29/19-06/20/19	O	2	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0006	05/29/19-06/20/19	O	2	2	0.0006	0.0006	0.0006	0.0006	0	0.0	H
Zn (DIS) (mg/L)	0.007	05/29/19-06/20/19	O	2	2	0.007	0.009	0.008	0.008	0.001	0.937	L

SAMPLE NO BBC-1906-116 LAB NO: H19060535-003 STATION:DS-3

06/19/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	6.43	08/06/14-06/19/19	O	30	30	3.72	10.8	6.67	7.01	2.14	0.11	
pH Fld (s.u.)	6.4	08/06/14-06/19/19	O	30	30	5.6	8.7	7.0	7	0.9	0.6	
SC Fld (umhos/cm)	45	08/06/14-06/19/19	O	30	30	40.0	132.0	56.8	55.9	20.9	0.6	
Flow (Gallons Per Min)	13.95	08/06/14-06/19/19	O	26	26	0.47	159.0	4.4	6.22	30.46	0.31	
Water Temp (Deg C)	7.3	08/06/14-06/19/19	O	30	30	3.8	15.1	8.2	8.9	3	0.3	
TDS (mg/L)	69	08/06/14-06/19/19	O	30	30	47.0	128.0	70.3	66.5	21.6	0.1	
TSS (mg/L)	< 10	08/06/14-06/19/19	O	30	4	< 4	95.0					
Tot Alk (mg/L)	20	08/06/14-06/19/19	O	30	30	17.0	29.0	22.1	23	2.8	0.7	
Ca (mg/L)	5	05/29/19-06/19/19	O	2	2	5.0	5.0	5.0	5	0	0.0	H
Chloride (mg/L)	< 1	08/06/14-06/19/19	O	30	3	< 1	< 1					
F (mg/L)	< 0.1	08/06/14-06/19/19	O	30	2	0.0	< .1					
Tot Hard (mg/L)	20	08/06/14-06/19/19	O	30	30	19.0	26.0	22.7	23	1.8	1.5	
Mg (mg/L)	2	05/29/19-06/19/19	O	2	2	1.0	2.0	1.4	1.5	0.7	0.8	H
K (mg/L)	1	05/29/19-06/19/19	O	2	1	1.0	1.0					
Na (mg/L)	1	05/29/19-06/19/19	O	2	2	1.0	1.0	1.0	1	0	0.0	H
SO4 (mg/L)	1	08/06/14-06/19/19	O	30	30	1.0	2.0	1.3	1	0.4	0.7	L
Nitrate + (mg/L)	0.15	08/06/14-06/19/19	O	30	30	0.11	0.48	0.27	0.29	0.09	1.28	
Al (DIS) (mg/L)	1.95	05/29/19-06/19/19	O	2	2	1.95	2.0	1.97	1.98	0.04	0.62	L
Sb (DIS) (mg/L)	< 0.0005	05/29/19-06/19/19	O	2	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	05/29/19-06/19/19	O	2	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.245	05/29/19-06/19/19	O	2	2	0.229	0.245	0.237	0.237	0.011	0.74	H
Be (DIS) (mg/L)	< 0.0008	05/29/19-06/19/19	O	2	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	05/29/19-06/19/19	O	2	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	05/29/19-06/19/19	O	2	0	< 0.01	< 0 .01					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Co (DIS) (mg/L)	< 0.01	05/29/19-06/19/19	O	2	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	0.003	05/29/19-06/19/19	O	2	2	0.003	0.004	0.003	0.004	0.001	0.464	L
Fe (DIS) (mg/L)	1.24	05/29/19-06/19/19	O	2	2	1.2	1.24	1.22	1.22	0.03	0.67	H
Pb (DIS) (mg/L)	0.0003	05/29/19-06/19/19	O	2	2	0.0003	0.0003	0.0003	0.0003	0	0.0	H
Mn (DIS) (mg/L)	0.006	05/29/19-06/19/19	O	2	2	0.006	0.008	0.007	0.007	0.001	0.928	L
Hg (DIS) (ug/L)	0.01	05/29/19-06/19/19	O	2	2	0.01	0.02	0.01	0.02	0.01	0.41	L
Mo (DIS) (mg/L)	< 0.002	05/29/19-06/19/19	O	2	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	0.004	05/29/19-06/19/19	O	2	2	0.004	0.004	0.004	0.004	0	0.0	H
Se (DIS) (mg/L)	< 0.0002	05/29/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	05/29/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.0244	05/29/19-06/19/19	O	2	2	0.0231	0.0244	0.0237	0.0238	0.0009	0.7321	H
Tl (DIS) (mg/L)	< 0.0002	05/29/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	< 0.0002	05/29/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
Zn (DIS) (mg/L)	0.006	05/29/19-06/19/19	O	2	2	0.006	0.006	0.006	0.006	0	0.0	H

SAMPLE NO BBC-1906-117 LAB NO: H19060535-004

STATION:DS-4

06/19/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	7.78	10/13/11-06/19/19	O	27	27	2.45	11.98	7.27	7.78	2.04	0.25	
pH Fld (s.u.)	6.25	10/13/11-06/19/19	O	26	26	5.86	8.83	7.15	7.23	0.78	1.15	
SC Fld (umhos/cm)	90	10/13/11-06/19/19	O	27	27	73.0	203.0	101.5	99	26.9	0.4	
Water Temp (Deg C)	6.9	10/13/11-06/19/19	O	27	27	0.2	20.2	7.3	8.4	4.5	0.1	
TDS (mg/L)	87	10/13/11-06/19/19	O	27	27	60.0	143.0	93.1	90	18.8	0.3	
TSS (mg/L)	< 10	08/06/14-06/19/19	O	26	14	< 10	868.0	33.7	28	183.2	0.1	L
Tot Alk (mg/L)	40	10/13/11-06/19/19	O	27	27	36.0	84.0	46.1	45	10.3	0.6	
Ca (mg/L)	13	05/29/19-06/19/19	O	2	2	13.0	13.0	13.0	13	0	0.0	H
Chloride (mg/L)	< 1	10/13/11-06/19/19	O	27	4	< 1	2.0					
F (mg/L)	< 0.1	10/13/11-06/19/19	O	27	10	0.1	< .1					
Tot Hard (mg/L)	42	10/13/11-06/19/19	O	27	27	38.0	71.0	47.1	47	6.9	0.7	
Mg (mg/L)	3	05/29/19-06/19/19	O	2	2	3.0	3.0	3.0	3	0	0.0	H
K (mg/L)	< 1	05/29/19-06/19/19	O	2	0	< 1	< 1					
Na (mg/L)	1	05/29/19-06/19/19	O	2	2	1.0	1.0	1.0	1	0	0.0	H
SO4 (mg/L)	3	10/13/11-06/19/19	O	27	26	1.0	4.0	2.2	2	0.7	1.2	
Nitrate + (mg/L)	0.25	10/13/11-06/19/19	O	27	22	< 0.01	0.47	0.11	0.25	0.15	0.9	
Al (DIS) (mg/L)	1.28	05/29/19-06/19/19	O	2	2	1.28	1.35	1.31	1.32	0.05	0.69	L

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Sb (DIS) (mg/L)	< 0.0005	05/29/19-06/19/19	O	2	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	0.001	05/29/19-06/19/19	O	2	2	0.001	0.001	0.001	0.001	0	0.0	H
Ba (DIS) (mg/L)	0.309	05/29/19-06/19/19	O	2	2	0.309	0.327	0.318	0.318	0.013	0.683	L
Be (DIS) (mg/L)	< 0.0008	05/29/19-06/19/19	O	2	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	05/29/19-06/19/19	O	2	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	05/29/19-06/19/19	O	2	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	05/29/19-06/19/19	O	2	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	05/29/19-06/19/19	O	2	1	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	0.77	05/29/19-06/19/19	O	2	2	0.77	0.82	0.79	0.8	0.04	0.62	L
Pb (DIS) (mg/L)	< 0.0003	05/29/19-06/19/19	O	2	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	0.006	05/29/19-06/19/19	O	2	2	0.005	0.006	0.005	0.006	0.001	0.523	H
Hg (DIS) (ug/L)	0.006	05/29/19-06/19/19	O	2	2	0.006	0.008	0.007	0.007	0.001	0.928	L
Mo (DIS) (mg/L)	< 0.002	05/29/19-06/19/19	O	2	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	0.002	05/29/19-06/19/19	O	2	2	0.002	0.002	0.002	0.002	0	0.0	H
Se (DIS) (mg/L)	< 0.0002	05/29/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	05/29/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.0396	05/29/19-06/19/19	O	2	2	0.0396	0.0425	0.041	0.0411	0.0021	0.6783	L
Tl (DIS) (mg/L)	< 0.0002	05/29/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	< 0.0002	05/29/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
Zn (DIS) (mg/L)	0.006	05/29/19-06/19/19	O	2	2	0.004	0.006	0.005	0.005	0.001	1.101	H

SAMPLE NO BBC-1906-215 LAB NO: H19060528-016 STATION:MW-1A

06/19/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	2.91	08/26/11-06/19/19	O	31	31	2.29	9.82	6.21	7.12	2.11	1.56	
DO (mg/L)	9.14	08/26/11-06/19/19	O	30	30	5.35	17.56	9.84	9.62	2.35	0.3	
EH (Millivolts)	191.44	03/21/18-06/19/19	O	5	5	191.44	305.7	262.86	280.7	45.01	1.59	L
pH Fld (s.u.)	7.28	08/26/11-06/19/19	O	31	31	6.62	7.66	7.25	7.32	0.23	0.14	
SC Fld (umhos/cm)	335	08/26/11-06/19/19	O	31	31	311.0	356.0	340.5	342.6	10.1	0.5	
Water Temp (Deg C)	8	08/26/11-06/19/19	O	31	31	5.9	8.0	7.0	6.9	0.5	2.1	H
TDS (mg/L)	187	08/26/11-06/19/19	O	31	31	176.0	209.0	191.6	193	7.6	0.6	
TSS (mg/L)	52	03/21/13-06/19/19	O	24	23	< 10	1380.0	75.5	64	340.8	0.1	
Tot Alk (mg/L)	160	08/26/11-06/19/19	O	31	31	160.0	190.0	172.8	170	6.4	2.0	L
Ca (mg/L)	44	06/19/19	O	1	1	44.0	44.0	44.0	44	0	0.0	H
Chloride (mg/L)	1	08/26/11-06/19/19	O	31	29	1.0	2.0	1.1	1	0.3	0.3	L

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

F (mg/L)	0.2	08/26/11-06/19/19	O	31	31	0.2	0.3	0.2	0.2	0	0.0	L
Tot Hard (mg/L)	184	08/26/11-06/19/19	O	31	31	157.0	191.0	178.5	179	8.4	0.6	
Mg (mg/L)	18	06/19/19	O	1	1	18.0	18.0	18.0	18	0	0.0	H
K (mg/L)	1	06/19/19	O	1	1	1.0	1.0	1.0	1	0	0.0	H
Na (mg/L)	2	06/19/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	15	08/26/11-06/19/19	O	31	31	8.0	15.0	10.8	12	2	2.1	H
Nitrate + (mg/L)	0.43	08/26/11-06/19/19	O	31	31	0.18	0.53	0.42	0.44	0.06	0.14	
Al (DIS) (mg/L)	0.023	06/19/19	O	1	1	0.023	0.023	0.023	0.023	0	0.0	H
Sb (DIS) (mg/L)	< 0.0005	06/19/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	06/19/19	O	1	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.168	06/19/19	O	1	1	0.168	0.168	0.168	0.168	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/19/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/19/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/19/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/19/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	0.007	06/19/19	O	1	1	0.007	0.007	0.007	0.007	0	0.0	H
Fe (DIS) (mg/L)	< 0.02	06/19/19	O	1	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	0.0004	06/19/19	O	1	1	0.0004	0.0004	0.0004	0.0004	0	0.0	H
Mn (DIS) (mg/L)	< 0.005	06/19/19	O	1	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	06/19/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	06/19/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	06/19/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	06/19/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	06/19/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.0996	06/19/19	O	1	1	0.0996	0.0996	0.0996	0.0996	0	0.0	H
Tl (DIS) (mg/L)	0.0009	06/19/19	O	1	1	0.0009	0.0009	0.0009	0.0009	0	0.0	H
U (DIS) (mg/L)	0.0009	06/19/19	O	1	1	0.0009	0.0009	0.0009	0.0009	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	06/19/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-214 LAB NO: H19060528-015

STATION:MW-1B

06/19/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	22.29	08/26/11-06/21/19	O	30	30	11.95	24.85	22.31	22.8	2.21	0.01	
Depth to W (Feet)	11.95	08/26/11-06/21/19	O	30	30	11.95	24.85	22.31	22.8	2.21	4.69	*L
DO (mg/L)	7.72	08/26/11-06/21/19	O	30	30	0.01	7.72	0.3	0.26	1.43	5.19	*H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

DO (mg/L)	0.18	08/26/11-06/21/19	O	30	30	0.01	7.72	0.3	0.26	1.43	0.08	
EH (Millivolts)	182.84	03/21/18-06/21/19	O	6	6	182.84	271.05	219.43	213.45	30.22	1.21	L
EH (Millivolts)	271.05	03/21/18-06/21/19	O	6	6	182.84	271.05	219.43	213.45	30.22	1.71	H
pH Fld (s.u.)	7.78	08/26/11-06/21/19	O	31	31	6.02	7.78	6.33	6.32	0.3	4.83	*H
pH Fld (s.u.)	6.41	08/26/11-06/21/19	O	31	31	6.02	7.78	6.33	6.32	0.3	0.27	
SC Fld (umhos/cm)	337	08/26/11-06/21/19	O	31	31	337.0	661.0	589.2	602	53.4	4.7	*L
SC Fld (umhos/cm)	555	08/26/11-06/21/19	O	31	31	337.0	661.0	589.2	602	53.4	0.6	
Water Temp (Deg C)	8.6	08/26/11-06/21/19	O	31	31	4.4	8.8	7.4	7.6	0.8	1.4	
Water Temp (Deg C)	4.4	08/26/11-06/21/19	O	31	31	4.4	8.8	7.4	7.6	0.8	3.8	*L
TDS (mg/L)	187	08/26/11-06/21/19	O	31	31	187.0	436.0	399.2	411	45.5	4.7	*L
TDS (mg/L)	422	08/26/11-06/21/19	O	31	31	187.0	436.0	399.2	411	45.5	0.5	
TSS (mg/L)	< 10	03/21/13-06/21/19	O	24	12	< 10	402.0					
TSS (mg/L)	< 10	03/21/13-06/21/19	O	24	12	< 10	402.0					
Tot Alk (mg/L)	190	08/26/11-06/21/19	O	31	31	49.0	190.0	84.3	84	22.6	4.7	*H
Tot Alk (mg/L)	96	08/26/11-06/21/19	O	31	31	49.0	190.0	84.3	84	22.6	0.5	
Ca (mg/L)	62	06/19/19-06/21/19	O	2	2	43.0	62.0	51.6	52.5	13.4	0.8	H
Ca (mg/L)	43	06/19/19-06/21/19	O	2	2	43.0	62.0	51.6	52.5	13.4	0.6	L
Chloride (mg/L)	1	08/26/11-06/21/19	O	31	26	1.0	3.0	1.1	1	0.5	0.2	L
Chloride (mg/L)	< 1	08/26/11-06/21/19	O	31	26	1.0	3.0	1.1	1	0.5	0.2	L
F (mg/L)	0.2	08/26/11-06/21/19	O	31	30	< 0.1	0.3	0.2	0.2	0	0.0	
F (mg/L)	< 0.1	08/26/11-06/21/19	O	31	30	< 0.1	0.3	0.2	0.2	0	0.0	L
Tot Hard (mg/L)	176	08/26/11-06/21/19	O	31	31	176.0	291.0	267.1	275	22.2	4.1	*L
Tot Hard (mg/L)	287	08/26/11-06/21/19	O	31	31	176.0	291.0	267.1	275	22.2	0.9	
Mg (mg/L)	32	06/19/19-06/21/19	O	2	2	17.0	32.0	23.3	24.5	10.6	0.8	H
Mg (mg/L)	17	06/19/19-06/21/19	O	2	2	17.0	32.0	23.3	24.5	10.6	0.6	L
K (mg/L)	< 1	06/19/19-06/21/19	O	2	1	< 1	3.0					
K (mg/L)	3	06/19/19-06/21/19	O	2	1	< 1	3.0					
Na (mg/L)	3	06/19/19-06/21/19	O	2	2	2.0	3.0	2.4	2.5	0.7	0.8	H
Na (mg/L)	2	06/19/19-06/21/19	O	2	2	2.0	3.0	2.4	2.5	0.7	0.6	L
SO4 (mg/L)	225	08/26/11-06/21/19	O	31	31	6.0	240.0	197.0	221	40.2	0.7	
SO4 (mg/L)	6	08/26/11-06/21/19	O	31	31	6.0	240.0	197.0	221	40.2	4.8	*L
Nitrate + (mg/L)	0.04	08/26/11-06/21/19	O	31	19	0.01	0.6	0.03	0.03	0.11	0.08	
Nitrate + (mg/L)	0.18	08/26/11-06/21/19	O	31	19	0.01	0.6	0.03	0.03	0.11	1.36	
Al (DIS) (mg/L)	< 0.009	06/19/19-06/21/19	O	2	0	< 0.009	< 0 .009					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Al (DIS) (mg/L)	< 0.009	06/19/19-06/21/19	O	2	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	06/19/19-06/21/19	O	2	1	< 0.0005	0.0009					
Sb (DIS) (mg/L)	0.0009	06/19/19-06/21/19	O	2	1	< 0.0005	0.0009					
As (DIS) (mg/L)	0.067	06/19/19-06/21/19	O	2	1	< 0.001	0.067					
As (DIS) (mg/L)	< 0.001	06/19/19-06/21/19	O	2	1	< 0.001	0.067					
Ba (DIS) (mg/L)	0.092	06/19/19-06/21/19	O	2	2	0.011	0.092	0.032	0.052	0.057	1.056	H
Ba (DIS) (mg/L)	0.011	06/19/19-06/21/19	O	2	2	0.011	0.092	0.032	0.052	0.057	0.365	L
Be (DIS) (mg/L)	< 0.0008	06/19/19-06/21/19	O	2	0	< 0.0008	: 0 .0008					
Be (DIS) (mg/L)	< 0.0008	06/19/19-06/21/19	O	2	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/19/19-06/21/19	O	2	0	< 0	: .00003					
Cd (DIS) (mg/L)	< 0	06/19/19-06/21/19	O	2	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/19/19-06/21/19	O	2	0	< 0.01	< 0 .01					
Cr (DIS) (mg/L)	< 0.01	06/19/19-06/21/19	O	2	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/19/19-06/21/19	O	2	1	< 0.01	0.02					
Co (DIS) (mg/L)	0.02	06/19/19-06/21/19	O	2	1	< 0.01	0.02					
Cu (DIS) (mg/L)	< 0.002	06/19/19-06/21/19	O	2	0	< 0.002	< 0 .002					
Cu (DIS) (mg/L)	< 0.002	06/19/19-06/21/19	O	2	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	06/19/19-06/21/19	O	2	1	< 0.02	18.9					
Fe (DIS) (mg/L)	18.9	06/19/19-06/21/19	O	2	1	< 0	18.9					
Pb (DIS) (mg/L)	< 0.0003	06/19/19-06/21/19	O	2	0	< 0.0003	: 0 .0003					
Pb (DIS) (mg/L)	< 0.0003	06/19/19-06/21/19	O	2	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	06/19/19-06/21/19	O	2	1	< 0.005	0.075					
Mn (DIS) (mg/L)	0.075	06/19/19-06/21/19	O	2	1	< 0.005	0.075					
Hg (DIS) (ug/L)	< 0.005	06/19/19-06/21/19	O	2	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	06/19/19-06/21/19	O	2	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	06/19/19-06/21/19	O	2	0	< 0.002	< 0 .002					
Mo (DIS) (mg/L)	< 0.002	06/19/19-06/21/19	O	2	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	06/19/19-06/21/19	O	2	1	< 0.001	0.011					
Ni (DIS) (mg/L)	0.011	06/19/19-06/21/19	O	2	1	< 0.001	0.011					
Se (DIS) (mg/L)	< 0.0002	06/19/19-06/21/19	O	2	0	< 0.0002	: 0 .0002					
Se (DIS) (mg/L)	< 0.0002	06/19/19-06/21/19	O	2	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	06/19/19-06/21/19	O	2	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	06/19/19-06/21/19	O	2	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	1.87	06/19/19-06/21/19	O	2	2	0.09	1.87	0.41	0.98	1.26	1.16	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Sr (DIS) (mg/L)	0.0894	06/19/19-06/21/19	O	2	2	0.0894	1.87	0.4089	0.9797	1.2591	0.2537	L
Tl (DIS) (mg/L)	< 0.0002	06/19/19-06/21/19	O	2	1	< 0.0002	0.0113					
Tl (DIS) (mg/L)	0.0113	06/19/19-06/21/19	O	2	1	< 0.0002	0.0113					
U (DIS) (mg/L)	< 0.0002	06/19/19-06/21/19	O	2	1	< 0.0002	0.0004					
U (DIS) (mg/L)	0.0004	06/19/19-06/21/19	O	2	1	< 0.0002	0.0004					
Zn (DIS) (mg/L)	< 0.002	06/19/19-06/21/19	O	2	1	< 0.002	0.012					
Zn (DIS) (mg/L)	0.012	06/19/19-06/21/19	O	2	1	< 0.002	0.012					

SAMPLE NO BBC-1906-201 LAB NO: H19060528-002 STATION:MW-2A

06/17/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	41.7	11/30/11-06/17/19	O	29	29	40.8	43.2	42.2	42.2	0.4	1.2	
DO (mg/L)	7.48	11/30/11-06/17/19	O	29	29	4.3	12.96	7.2	7.45	1.75	0.16	
EH (Millivolts)	283.77	03/20/18-06/17/19	O	5	5	255.99	289.19	273.76	278.55	14.12	0.71	
pH Fld (s.u.)	7.44	11/30/11-06/17/19	O	29	29	7.07	7.52	7.3	7.3	0.13	1.08	
SC Fld (umhos/cm)	360	11/30/11-06/17/19	O	29	29	353.0	412.3	380.5	382	12.7	1.6	
Water Temp (Deg C)	7.8	11/30/11-06/17/19	O	29	29	6.3	8.1	7.1	7.2	0.5	1.4	
TDS (mg/L)	192	11/30/11-06/17/19	O	30	30	191.0	279.0	209.1	208.5	14.7	1.2	
TSS (mg/L)	< 10	03/21/13-06/17/19	O	23	6	5.0	14.0					
Tot Alk (mg/L)	180	11/30/11-06/17/19	O	30	30	180.0	220.0	191.1	190	9	1.2	L
Ca (mg/L)	41	06/17/19	O	1	1	41.0	41.0	41.0	41	0	0.0	H
Chloride (mg/L)	1	11/30/11-06/17/19	O	30	29	1.0	2.0	1.3	1	0.5	0.6	L
F (mg/L)	0.3	11/30/11-06/17/19	O	30	30	0.3	0.4	0.3	0.3	0.1	0.4	L
Tot Hard (mg/L)	193	11/30/11-06/17/19	O	30	30	190.0	268.0	203.8	202	13.1	0.8	
Mg (mg/L)	22	06/17/19	O	1	1	22.0	22.0	22.0	22	0	0.0	H
K (mg/L)	1	06/17/19	O	1	1	1.0	1.0	1.0	1	0	0.0	H
Na (mg/L)	3	06/17/19	O	1	1	3.0	3.0	3.0	3	0	0.0	H
SO4 (mg/L)	21	11/30/11-06/17/19	O	30	30	15.0	51.0	19.3	19.5	6.3	0.3	
Nitrate + (mg/L)	0.22	11/30/11-06/17/19	O	30	29	< 0.01	0.24	0.19	0.22	0.04	0.76	
Al (DIS) (mg/L)	< 0.009	06/17/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	06/17/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	06/17/19	O	1	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.083	06/17/19	O	1	1	0.083	0.083	0.083	0.083	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/17/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/17/19	O	1	0	< 0	: .00003					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Cr (DIS) (mg/L)	< 0.01	06/17/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/17/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	06/17/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	06/17/19	O	1	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	06/17/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	06/17/19	O	1	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	06/17/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	06/17/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	06/17/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	0.0012	06/17/19	O	1	1	0.0012	0.0012	0.0012	0.0012	0	0.0	H
Ag (DIS) (mg/L)	< 0.0002	06/17/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.0919	06/17/19	O	1	1	0.0919	0.0919	0.0919	0.0919	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	06/17/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0005	06/17/19	O	1	1	0.0005	0.0005	0.0005	0.0005	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	06/17/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-202 LAB NO: H19060528-003

STATION:MW-2B

06/17/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	41.54	11/30/11-06/17/19	O	29	29	40.77	43.14	42.0	42.01	0.45	1.03	
DO (mg/L)	0.1	11/30/11-06/17/19	O	29	29	0.1	10.3	0.4	0.4	1.9	0.2	
EH (Millivolts)	299.79	03/20/18-06/17/19	O	5	5	230.66	299.79	261.86	266.48	26.11	1.45	H
pH Fld (s.u.)	7.29	11/30/11-06/17/19	O	29	29	6.98	7.51	7.25	7.29	0.11	0.32	
SC Fld (umhos/cm)	418	11/30/11-06/17/19	O	29	29	192.0	525.0	445.1	455	57.5	0.5	
Water Temp (Deg C)	7.7	11/30/11-06/17/19	O	29	29	3.0	7.9	6.9	7.2	0.9	0.9	
TDS (mg/L)	248	11/30/11-06/17/19	O	29	29	208.0	292.0	255.2	251	17.1	0.4	
TSS (mg/L)	< 10	03/21/13-06/17/19	O	23	1	< 4	17.0					
Tot Alk (mg/L)	200	11/30/11-06/17/19	O	29	29	180.0	260.0	215.0	210	15.3	1.0	
Ca (mg/L)	50	06/17/19	O	1	1	50.0	50.0	50.0	50	0	0.0	H
Chloride (mg/L)	1	11/30/11-06/17/19	O	29	22	1.0	2.0	1.1	1	0.4	0.3	L
F (mg/L)	0.3	11/30/11-06/17/19	O	29	29	0.3	0.4	0.4	0.4	0	0.0	L
Tot Hard (mg/L)	235	11/30/11-06/17/19	O	29	29	202.0	280.0	250.5	252	15.8	1.0	
Mg (mg/L)	27	06/17/19	O	1	1	27.0	27.0	27.0	27	0	0.0	H
K (mg/L)	2	06/17/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
Na (mg/L)	3	06/17/19	O	1	1	3.0	3.0	3.0	3	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

SO4 (mg/L)	41	11/30/11-06/17/19	O	29	29	23.0	51.0	39.6	39	5.1	0.3	
Nitrate + (mg/L)	< 0.01	11/30/11-06/17/19	O	29	1	< 0.01	< .5					
Al (DIS) (mg/L)	< 0.009	06/17/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	06/17/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	0.003	06/17/19	O	1	1	0.003	0.003	0.003	0.003	0	0.0	H
Ba (DIS) (mg/L)	0.044	06/17/19	O	1	1	0.044	0.044	0.044	0.044	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/17/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/17/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/17/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/17/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	06/17/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	0.04	06/17/19	O	1	1	0.04	0.04	0.04	0.04	0	0.0	H
Pb (DIS) (mg/L)	< 0.0003	06/17/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	0.009	06/17/19	O	1	1	0.009	0.009	0.009	0.009	0	0.0	H
Hg (DIS) (ug/L)	< 0.005	06/17/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	06/17/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	06/17/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	0.0051	06/17/19	O	1	1	0.0051	0.0051	0.0051	0.0051	0	0.0	H
Ag (DIS) (mg/L)	< 0.0002	06/17/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.0951	06/17/19	O	1	1	0.0951	0.0951	0.0951	0.0951	0	0.0	H
Tl (DIS) (mg/L)	0.0036	06/17/19	O	1	1	0.0036	0.0036	0.0036	0.0036	0	0.0	H
U (DIS) (mg/L)	0.0022	06/17/19	O	1	1	0.0022	0.0022	0.0022	0.0022	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	06/17/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-200 LAB NO: H19060528-001

STATION:MW-3

PARAMETER	06/17/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	37.63	11/30/11-06/17/19	O	29	29	26.23	46.13	38.3	40.88	5.74	0.12	
DO (mg/L)	0.06	11/30/11-06/17/19	O	29	29	0.0	2.09	0.14	0.22	0.43	0.2	
EH (Millivolts)	166.47	03/19/18-06/17/19	O	5	5	152.22	222.03	179.76	173.29	27	0.49	
pH Fld (s.u.)	7.14	11/30/11-06/17/19	O	29	29	6.77	7.31	7.08	7.08	0.11	0.52	
SC Fld (umhos/cm)	728	11/30/11-06/17/19	O	29	29	727.0	883.0	821.6	830	40.7	2.3	
Water Temp (Deg C)	9.6	11/30/11-06/17/19	O	29	29	8.1	10.3	9.3	9.5	0.6	0.5	
TDS (mg/L)	508	11/30/11-06/17/19	O	29	29	508.0	607.0	567.8	571	27.4	2.2	L
TSS (mg/L)	< 10	06/03/13-06/17/19	O	23	0	< 4	< 10					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Tot Alk (mg/L)	210	11/30/11-06/17/19	O	29	29	210.0	230.0	216.5	220	5.5	1.2 L
Ca (mg/L)	72	06/17/19	O	1	1	72.0	72.0	72.0	72	0	0.0 H
Chloride (mg/L)	1	11/30/11-06/17/19	O	29	29	1.0	2.0	1.2	1	0.4	0.4 L
F (mg/L)	0.8	11/30/11-06/17/19	O	29	29	0.6	0.8	0.8	0.8	0.1	0.5 H
Tot Hard (mg/L)	378	11/30/11-06/17/19	O	29	29	361.0	523.0	418.1	422	33	1.2
Mg (mg/L)	48	06/17/19	O	1	1	48.0	48.0	48.0	48	0	0.0 H
K (mg/L)	4	06/17/19	O	1	1	4.0	4.0	4.0	4	0	0.0 H
Na (mg/L)	16	06/17/19	O	1	1	16.0	16.0	16.0	16	0	0.0 H
SO4 (mg/L)	221	11/30/11-06/17/19	O	29	29	213.0	280.0	249.0	258	23.1	1.2
Nitrate + (mg/L)	< 0.01	11/30/11-06/17/19	O	29	3	< 0.01	0.02				
Al (DIS) (mg/L)	< 0.009	06/17/19	O	1	0	< 0.009	< 0 .009				
Sb (DIS) (mg/L)	< 0.0005	06/17/19	O	1	0	< 0.0005	: 0 .0005				
As (DIS) (mg/L)	0.068	06/17/19	O	1	1	0.068	0.068	0.068	0.068	0	0.0 H
Ba (DIS) (mg/L)	0.011	06/17/19	O	1	1	0.011	0.011	0.011	0.011	0	0.0 H
Be (DIS) (mg/L)	< 0.0008	06/17/19	O	1	0	< 0.0008	: 0 .0008				
Cd (DIS) (mg/L)	< 0	06/17/19	O	1	0	< 0	: .00003				
Cr (DIS) (mg/L)	< 0.01	06/17/19	O	1	0	< 0.01	< 0 .01				
Co (DIS) (mg/L)	< 0.01	06/17/19	O	1	0	< 0.01	< 0 .01				
Cu (DIS) (mg/L)	< 0.002	06/17/19	O	1	0	< 0.002	< 0 .002				
Fe (DIS) (mg/L)	1.01	06/17/19	O	1	1	1.01	1.01	1.01	1.01	0	0.0 H
Pb (DIS) (mg/L)	< 0.0003	06/17/19	O	1	0	< 0.0003	: 0 .0003				
Mn (DIS) (mg/L)	0.015	06/17/19	O	1	1	0.015	0.015	0.015	0.015	0	0.0 H
Hg (DIS) (ug/L)	< 0.005	06/17/19	O	1	0	< 0.005	< 0 .005				
Mo (DIS) (mg/L)	< 0.002	06/17/19	O	1	0	< 0.002	< 0 .002				
Ni (DIS) (mg/L)	< 0.001	06/17/19	O	1	0	< 0.001	< 0 .001				
Se (DIS) (mg/L)	< 0.0002	06/17/19	O	1	0	< 0.0002	: 0 .0002				
Ag (DIS) (mg/L)	< 0.0002	06/17/19	O	1	0	< 0.0002	: 0 .0002				
Sr (DIS) (mg/L)	13.6	06/17/19	O	1	1	13.6	13.6	13.6	13.6	0	0.0 H
Tl (DIS) (mg/L)	0.0003	06/17/19	O	1	1	0.0003	0.0003	0.0003	0.0003	0	0.0 H
U (DIS) (mg/L)	0.0011	06/17/19	O	1	1	0.0011	0.0011	0.0011	0.0011	0	0.0 H
Zn (DIS) (mg/L)	< 0.002	06/17/19	O	1	0	< 0.002	< 0 .002				

SAMPLE NO BBC-1906-218 LAB NO: H19060528-019

STATION:MW-4A

06/20/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Depth to W (Feet)	3.9	05/31/12-06/20/19	O	27	27	3.4	6.0	4.8	4.9	0.7	1.3	
DO (mg/L)	0.21	05/31/12-06/20/19	O	27	26	< 0.01	3.57	0.44	0.6	0.87	0.27	
EH (Millivolts)	287.43	03/21/18-06/20/19	O	5	5	-380.47	287.43	12.74	230.31	33.98	8.08	*H
pH Fld (s.u.)	7.36	05/31/12-06/20/19	O	27	27	6.24	7.53	7.22	7.26	0.26	0.52	
SC Fld (umhos/cm)	484	05/31/12-06/20/19	O	27	27	481.0	551.0	509.6	511	19.2	1.3	
Water Temp (Deg C)	5.1	05/31/12-06/20/19	O	27	27	4.3	8.8	6.2	6.8	1.5	0.7	
TDS (mg/L)	274	05/31/12-06/20/19	O	27	27	270.0	311.0	286.8	285	10.6	1.2	
TSS (mg/L)	< 10	03/21/13-06/20/19	O	23	1	< 4	23.0					
Tot Alk (mg/L)	240	05/31/12-06/20/19	O	27	27	240.0	290.0	266.4	270	12.1	2.2	L
Ca (mg/L)	75	06/20/19	O	1	1	75.0	75.0	75.0	75	0	0.0	H
Chloride (mg/L)	3	05/31/12-06/20/19	O	27	27	2.0	4.0	2.5	2.6	0.6	0.9	
F (mg/L)	0.1	05/31/12-06/20/19	O	27	27	0.1	0.2	0.1	0.1	0.1	0.3	L
Tot Hard (mg/L)	271	05/31/12-06/20/19	O	27	27	253.0	292.0	277.1	279	10	0.6	
Mg (mg/L)	20	06/20/19	O	1	1	20.0	20.0	20.0	20	0	0.0	H
K (mg/L)	1	06/20/19	O	1	1	1.0	1.0	1.0	1	0	0.0	H
Na (mg/L)	3	06/20/19	O	1	1	3.0	3.0	3.0	3	0	0.0	H
SO4 (mg/L)	15	05/31/12-06/20/19	O	27	27	8.0	21.0	13.7	13	3.3	0.4	
Nitrate + (mg/L)	< 0.01	05/31/12-06/20/19	O	27	2	< 0.01	0.02					
Al (DIS) (mg/L)	< 0.009	06/20/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	06/20/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	06/20/19	O	1	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.172	06/20/19	O	1	1	0.172	0.172	0.172	0.172	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/20/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/20/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/20/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/20/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	06/20/19	O	1	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	06/20/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	0.249	06/20/19	O	1	1	0.249	0.249	0.249	0.249	0	0.0	H
Hg (DIS) (ug/L)	< 0.005	06/20/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	06/20/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Ag (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.163	06/20/19	O	1	1	0.163	0.163	0.163	0.163	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0004	06/20/19	O	1	1	0.0004	0.0004	0.0004	0.0004	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-219 LAB NO: H19060528-020

STATION:MW-4B

06/20/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	3.45	05/31/12-06/20/19	O	27	27	3.02	7.26	4.38	4.39	0.85	1.09	
DO (mg/L)	0.25	05/31/12-06/20/19	O	27	27	0.03	3.39	0.3	0.26	0.71	0.07	
EH (Millivolts)	223.6	03/21/18-06/20/19	O	5	5	161.5	347.7	217.9	223.6	74.9	0.1	
pH Fld (s.u.)	7.6	05/31/12-06/20/19	O	27	27	6.8	7.8	7.5	7.5	0.2	0.7	
SC Fld (umhos/cm)	431	05/31/12-06/20/19	O	27	27	419.0	510.0	456.3	454	22.4	1.1	
Water Temp (Deg C)	6.5	05/31/12-06/20/19	O	27	27	5.3	7.0	6.2	6.2	0.4	0.8	
TDS (mg/L)	240	05/31/12-06/20/19	O	27	27	231.0	275.0	250.4	249	11	0.9	
TSS (mg/L)	< 10	03/21/13-06/20/19	O	23	0	< 4	< 10					
Tot Alk (mg/L)	220	05/31/12-06/20/19	O	27	27	220.0	270.0	238.1	240	14.1	1.3	L
Ca (mg/L)	64	06/20/19	O	1	1	64.0	64.0	64.0	64	0	0.0	H
Chloride (mg/L)	2	05/31/12-06/20/19	O	27	27	1.0	2.0	1.7	2	0.4	0.7	H
F (mg/L)	0.1	05/31/12-06/20/19	O	27	27	0.1	0.2	0.1	0.1	0	0.0	L
Tot Hard (mg/L)	241	05/31/12-06/20/19	O	27	27	167.0	265.0	241.7	243	19.4	0.0	
Mg (mg/L)	20	06/20/19	O	1	1	20.0	20.0	20.0	20	0	0.0	H
K (mg/L)	2	06/20/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
Na (mg/L)	2	06/20/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	15	05/31/12-06/20/19	O	27	27	11.0	26.0	14.2	13	3.4	0.2	
Nitrate + (mg/L)	0.06	05/31/12-06/20/19	O	27	21	< 0.01	0.07	0.03	0.04	0.02	1.46	
Al (DIS) (mg/L)	< 0.009	06/20/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	06/20/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	06/20/19	O	1	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.126	06/20/19	O	1	1	0.126	0.126	0.126	0.126	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/20/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/20/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/20/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/20/19	O	1	0	< 0.01	< 0 .01					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Cu (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	06/20/19	O	1	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	06/20/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	06/20/19	O	1	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	06/20/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	06/20/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.167	06/20/19	O	1	1	0.167	0.167	0.167	0.167	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0006	06/20/19	O	1	1	0.0006	0.0006	0.0006	0.0006	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-223 LAB NO: H19060562-003

STATION:MW-6A

06/20/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	7.02	11/06/13-06/20/19	O	21	21	6.34	9.73	8.27	8.45	1.04	1.21	
DO (mg/L)	6.73	11/06/13-06/20/19	O	21	21	3.07	8.09	5.45	5.63	1.34	0.95	
EH (Millivolts)	262.36	03/20/18-06/20/19	O	5	5	240.46	416.95	303.39	278.71	72.75	0.56	
pH Fld (s.u.)	7.73	11/06/13-06/20/19	O	21	21	6.61	7.73	7.44	7.49	0.26	1.1	H
SC Fld (umhos/cm)	397	11/06/13-06/20/19	O	21	21	397.0	489.0	435.7	434	23.7	1.6	L
Water Temp (Deg C)	6.1	11/06/13-06/20/19	O	21	21	4.9	8.1	6.6	6.4	0.9	0.5	
TDS (mg/L)	223	11/06/13-06/20/19	O	21	21	223.0	266.0	244.2	246	10.4	2.0	L
TSS (mg/L)	36	03/25/14-06/20/19	O	19	13	< 10	193.0	28.8	19	58.7	0.1	
Tot Alk (mg/L)	210	11/06/13-06/20/19	O	21	21	210.0	250.0	230.1	230	13.6	1.5	L
Ca (mg/L)	47	06/20/19	O	1	1	47.0	47.0	47.0	47	0	0.0	H
Chloride (mg/L)	< 1	11/06/13-06/20/19	O	21	11	1.0	1.0	1.0	1	0	0.0	H
F (mg/L)	0.2	11/06/13-06/20/19	O	21	21	0.2	0.2	0.2	0.2	0	0.0	H
Tot Hard (mg/L)	207	11/06/13-06/20/19	O	21	21	207.0	264.0	241.0	240	15.3	2.2	L
Mg (mg/L)	22	06/20/19	O	1	1	22.0	22.0	22.0	22	0	0.0	H
K (mg/L)	< 1	06/20/19	O	1	0	< 1	< 1					
Na (mg/L)	3	06/20/19	O	1	1	3.0	3.0	3.0	3	0	0.0	H
SO4 (mg/L)	12	11/06/13-06/20/19	O	21	20	< 1	18.0	12.5	15	3.8	0.1	
Nitrate + (mg/L)	0.15	11/06/13-06/20/19	O	21	21	0.07	0.21	0.12	0.11	0.04	0.85	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Al (DIS) (mg/L)	< 0.009	06/20/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	06/20/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	06/20/19	O	1	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.164	06/20/19	O	1	1	0.164	0.164	0.164	0.164	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/20/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/20/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/20/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/20/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	06/20/19	O	1	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	06/20/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	06/20/19	O	1	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	06/20/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	06/20/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.14	06/20/19	O	1	1	0.14	0.14	0.14	0.14	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0006	06/20/19	O	1	1	0.0006	0.0006	0.0006	0.0006	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-224 LAB NO: H19060562-004 STATION:MW-6B

06/20/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	10.2	11/06/13-06/20/19	O	21	21	10.0	13.0	11.6	11.8	1	1.4	
DO (mg/L)	4.4	11/06/13-06/20/19	O	21	21	1.8	4.6	3.1	3.2	0.8	1.6	
EH (Millivolts)	244.4	03/20/18-06/20/19	O	5	5	244.4	413.8	287.3	256.2	71.9	0.6	L
pH Fld (s.u.)	7.75	11/06/13-06/20/19	O	21	21	7.16	7.75	7.57	7.64	0.18	0.98	H
SC Fld (umhos/cm)	424	11/06/13-06/20/19	O	21	21	422.0	508.0	455.5	455	22.4	1.4	
Water Temp (Deg C)	6.5	11/06/13-06/20/19	O	21	21	5.4	6.9	6.4	6.4	0.3	0.3	
TDS (mg/L)	238	11/06/13-06/20/19	O	21	21	236.0	272.0	253.9	253	9.2	1.7	
TSS (mg/L)	25	03/25/14-06/20/19	O	19	15	< 10	1260.0	26.6	19	285.4	0.0	
Tot Alk (mg/L)	210	11/06/13-06/20/19	O	21	21	210.0	240.0	228.4	230	7.9	2.3	L
Ca (mg/L)	41	06/20/19	O	1	1	41.0	41.0	41.0	41	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Chloride (mg/L)	< 1	11/06/13-06/20/19	O	21	10	1.0	2.0					
F (mg/L)	0.6	11/06/13-06/20/19	O	21	21	0.5	0.8	0.6	0.6	0.1	0.1	
Tot Hard (mg/L)	190	11/06/13-06/20/19	O	21	21	190.0	230.0	216.3	219	10.7	2.5	L
Mg (mg/L)	21	06/20/19	O	1	1	21.0	21.0	21.0	21	0	0.0	H
K (mg/L)	1	06/20/19	O	1	1	1.0	1.0	1.0	1	0	0.0	H
Na (mg/L)	17	06/20/19	O	1	1	17.0	17.0	17.0	17	0	0.0	H
SO4 (mg/L)	22	11/06/13-06/20/19	O	21	21	16.0	29.0	22.0	23	3.5	0.0	
Nitrate + (mg/L)	0.11	11/06/13-06/20/19	O	21	21	0.06	0.14	0.09	0.08	0.03	0.71	
Al (DIS) (mg/L)	0.011	06/20/19	O	1	1	0.011	0.011	0.011	0.011	0	0.0	H
Sb (DIS) (mg/L)	< 0.0005	06/20/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	06/20/19	O	1	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.094	06/20/19	O	1	1	0.094	0.094	0.094	0.094	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/20/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/20/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/20/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/20/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	06/20/19	O	1	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	06/20/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	06/20/19	O	1	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	06/20/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	06/20/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.217	06/20/19	O	1	1	0.217	0.217	0.217	0.217	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0006	06/20/19	O	1	1	0.0006	0.0006	0.0006	0.0006	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-225 LAB NO: H19060562-005

STATION:MW-7

06/20/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	31.31	11/06/13-06/20/19	O	21	21	30.92	33.49	31.98	32.05	0.75	0.89	
DO (mg/L)	0.51	11/06/13-06/20/19	O	21	21	0.07	2.4	0.61	0.69	0.65	0.15	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

EH (Millivolts)	194.26	03/20/18-06/20/19	O	5	5	193.2	244.51	208.08	201.47	21.15	0.65	
pH Fld (s.u.)	7.6	11/06/13-06/20/19	O	21	21	6.8	7.6	7.5	7.5	0.2	0.7	
SC Fld (umhos/cm)	509	11/06/13-06/20/19	O	21	21	490.0	582.0	536.8	540	25.1	1.1	
Water Temp (Deg C)	7.9	11/06/13-06/20/19	O	21	21	6.3	8.8	7.6	7.7	0.6	0.5	
TDS (mg/L)	308	11/06/13-06/20/19	O	21	21	304.0	348.0	318.5	314	12.3	0.9	
TSS (mg/L)	34	03/25/14-06/20/19	O	19	16	10.0	1440.0	76.6	96	338.3	0.1	
Tot Alk (mg/L)	220	11/06/13-06/20/19	O	21	21	220.0	280.0	236.2	230	15.6	1.0	L
Ca (mg/L)	50	06/20/19	O	1	1	50.0	50.0	50.0	50	0	0.0	H
Chloride (mg/L)	4	11/06/13-06/20/19	O	21	21	3.0	5.0	3.9	4	0.5	0.3	
F (mg/L)	0.3	11/06/13-06/20/19	O	21	21	0.3	0.7	0.3	0.3	0.1	0.2	L
Tot Hard (mg/L)	266	11/06/13-06/20/19	O	21	21	266.0	322.0	298.1	300	13.8	2.3	L
Mg (mg/L)	34	06/20/19	O	1	1	34.0	34.0	34.0	34	0	0.0	H
K (mg/L)	1	06/20/19	O	1	1	1.0	1.0	1.0	1	0	0.0	H
Na (mg/L)	3	06/20/19	O	1	1	3.0	3.0	3.0	3	0	0.0	H
SO4 (mg/L)	64	11/06/13-06/20/19	O	21	21	54.0	84.0	66.2	65	7.8	0.3	
Nitrate + (mg/L)	< 0.01	11/06/13-06/20/19	O	21	3	< 0.01	0.05					
Al (DIS) (mg/L)	0.011	06/20/19	O	1	1	0.011	0.011	0.011	0.011	0	0.0	H
Sb (DIS) (mg/L)	< 0.0005	06/20/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	0.001	06/20/19	O	1	1	0.001	0.001	0.001	0.001	0	0.0	H
Ba (DIS) (mg/L)	0.04	06/20/19	O	1	1	0.04	0.04	0.04	0.04	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/20/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/20/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/20/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/20/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	0.05	06/20/19	O	1	1	0.05	0.05	0.05	0.05	0	0.0	H
Pb (DIS) (mg/L)	0.0005	06/20/19	O	1	1	0.0005	0.0005	0.0005	0.0005	0	0.0	H
Mn (DIS) (mg/L)	0.007	06/20/19	O	1	1	0.007	0.007	0.007	0.007	0	0.0	H
Hg (DIS) (ug/L)	< 0.005	06/20/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	0.004	06/20/19	O	1	1	0.004	0.004	0.004	0.004	0	0.0	H
Ni (DIS) (mg/L)	< 0.001	06/20/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.148	06/20/19	O	1	1	0.148	0.148	0.148	0.148	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Tl (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0019	06/20/19	O	1	1	0.0019	0.0019	0.0019	0.0019	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-226 LAB NO: H19060562-006

STATION:MW-8

06/20/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	27.98	11/06/13-06/20/19	O	21	21	27.55	32.74	30.3	30.65	1.48	1.57	
DO (mg/L)	0.03	11/06/13-06/20/19	O	21	21	0.01	1.3	0.16	0.2	0.34	0.37	
EH (Millivolts)	83.66	03/20/18-06/20/19	O	5	5	83.66	134.86	114.43	119.18	19.29	1.6	L
pH Fld (s.u.)	8.06	11/06/13-06/20/19	O	21	21	7.46	8.08	7.89	7.96	0.18	0.92	
SC Fld (umhos/cm)	293	11/06/13-06/20/19	O	21	21	280.0	330.0	306.3	308	13.3	1.0	
Water Temp (Deg C)	7.3	11/06/13-06/20/19	O	21	21	6.0	7.3	7.0	7.2	0.4	0.8	
TDS (mg/L)	151	11/06/13-06/20/19	O	21	21	151.0	171.0	162.9	163	5	2.4	L
TSS (mg/L)	< 10	03/25/14-06/20/19	O	19	7	< 4	65.0					
Tot Alk (mg/L)	140	11/06/13-06/20/19	O	21	21	140.0	170.0	154.1	150	7.5	1.9	L
Ca (mg/L)	23	06/20/19	O	1	1	23.0	23.0	23.0	23	0	0.0	H
Chloride (mg/L)	< 1	11/06/13-06/20/19	O	21	0	< 1	< 1					
F (mg/L)	0.2	11/06/13-06/20/19	O	21	21	0.2	0.3	0.2	0.2	0	0.0	L
Tot Hard (mg/L)	146	11/06/13-06/20/19	O	21	21	146.0	173.0	162.5	165	6.2	2.7	L
Mg (mg/L)	22	06/20/19	O	1	1	22.0	22.0	22.0	22	0	0.0	H
K (mg/L)	< 1	06/20/19	O	1	0	< 1	< 1					
Na (mg/L)	3	06/20/19	O	1	1	3.0	3.0	3.0	3	0	0.0	H
SO4 (mg/L)	16	11/06/13-06/20/19	O	21	21	11.0	16.0	14.0	14	1.7	1.2	H
Nitrate + (mg/L)	< 0.01	11/06/13-06/20/19	O	21	1	< 0.01	< 0 .01					
Al (DIS) (mg/L)	< 0.009	06/20/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	06/20/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	0.002	06/20/19	O	1	1	0.002	0.002	0.002	0.002	0	0.0	H
Ba (DIS) (mg/L)	0.077	06/20/19	O	1	1	0.077	0.077	0.077	0.077	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/20/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/20/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/20/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/20/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	0.09	06/20/19	O	1	1	0.09	0.09	0.09	0.09	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Pb (DIS) (mg/L)	< 0.0003	06/20/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	0.018	06/20/19	O	1	1	0.018	0.018	0.018	0.018	0	0.0	H
Hg (DIS) (ug/L)	< 0.005	06/20/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	06/20/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.0787	06/20/19	O	1	1	0.0787	0.0787	0.0787	0.0787	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0008	06/20/19	O	1	1	0.0008	0.0008	0.0008	0.0008	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-213 LAB NO: H19060528-014

STATION:MW-9

PARAMETER	RESULT	06/19/19 COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	48.67	11/24/14-06/19/19	O	18	18	46.89	52.22	50.41	50.66	1.3	1.34	
DO (mg/L)	0.04	11/24/14-06/19/19	O	18	18	0.02	1.25	0.16	0.13	0.41	0.29	
EH (Millivolts)	153.84	03/19/18-06/19/19	O	5	5	153.84	227.53	186.77	192.67	27.53	1.2	L
pH Fld (s.u.)	7.05	11/24/14-06/19/19	O	18	18	6.72	7.15	7.02	7.05	0.1	0.26	
SC Fld (umhos/cm)	708	11/24/14-06/19/19	O	18	18	470.0	826.0	753.2	778.5	78.4	0.6	
Water Temp (Deg C)	9.2	11/24/14-06/19/19	O	18	18	6.8	9.4	8.4	8.7	0.7	1.1	
TDS (mg/L)	505	11/24/14-06/19/19	O	18	18	501.0	548.0	524.6	527.5	11.4	1.7	
TSS (mg/L)	< 10	03/24/15-06/19/19	O	17	1	< 4	51.0					
Tot Alk (mg/L)	230	11/24/14-06/19/19	O	18	18	230.0	250.0	242.1	240	6.5	1.9	L
Ca (mg/L)	92	06/19/19	O	1	1	92.0	92.0	92.0	92	0	0.0	H
Chloride (mg/L)	1	11/24/14-06/19/19	O	18	18	1.0	2.0	1.1	1	0.2	0.3	L
F (mg/L)	0.5	11/24/14-06/19/19	O	18	18	0.5	0.6	0.6	0.6	0	0.0	L
Tot Hard (mg/L)	451	11/24/14-06/19/19	O	18	18	389.0	454.0	430.0	432	18.1	1.2	
Mg (mg/L)	54	06/19/19	O	1	1	54.0	54.0	54.0	54	0	0.0	H
K (mg/L)	4	06/19/19	O	1	1	4.0	4.0	4.0	4	0	0.0	H
Na (mg/L)	5	06/19/19	O	1	1	5.0	5.0	5.0	5	0	0.0	H
SO4 (mg/L)	197	11/24/14-06/19/19	O	18	18	190.0	216.0	202.4	201	7.8	0.7	
Nitrate + (mg/L)	< 0.01	11/24/14-06/19/19	O	18	2	< 0.01	0.02					
Al (DIS) (mg/L)	< 0.009	06/19/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	06/19/19	O	1	0	< 0.0005	: 0 .0005					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

As (DIS) (mg/L)	0.014	06/19/19	O	1	1	0.014	0.014	0.014	0.014	0	0.0	H
Ba (DIS) (mg/L)	0.014	06/19/19	O	1	1	0.014	0.014	0.014	0.014	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/19/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/19/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/19/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/19/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	06/19/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	0.9	06/19/19	O	1	1	0.9	0.9	0.9	0.9	0	0.0	H
Pb (DIS) (mg/L)	0.0014	06/19/19	O	1	1	0.0014	0.0014	0.0014	0.0014	0	0.0	H
Mn (DIS) (mg/L)	0.083	06/19/19	O	1	1	0.083	0.083	0.083	0.083	0	0.0	H
Hg (DIS) (ug/L)	< 0.005	06/19/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	06/19/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	06/19/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	06/19/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	06/19/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	1.34	06/19/19	O	1	1	1.34	1.34	1.34	1.34	0	0.0	H
Tl (DIS) (mg/L)	0.0027	06/19/19	O	1	1	0.0027	0.0027	0.0027	0.0027	0	0.0	H
U (DIS) (mg/L)	0.0009	06/19/19	O	1	1	0.0009	0.0009	0.0009	0.0009	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	06/19/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-208 LAB NO: H19060528-009

STATION:PW-10

06/18/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	43.78	03/24/15-06/18/19	O	8	8	43.21	46.94	45.08	45.49	1.26	1.04	
DO (mg/L)	0.77	03/24/15-06/18/19	O	8	8	0.17	0.86	0.44	0.58	0.29	1.12	
EH (Millivolts)	168.92	06/13/18-06/18/19	O	3	3	156.33	175.88	166.85	168.92	9.91	0.21	
pH Fld (s.u.)	7.34	03/24/15-06/18/19	O	8	8	7.02	7.54	7.34	7.35	0.15	0.03	
SC Fld (umhos/cm)	697	03/24/15-06/18/19	O	8	8	697.0	806.8	747.8	750	33.9	1.5	L
Water Temp (Deg C)	9.9	03/24/15-06/18/19	O	8	8	8.0	10.3	9.5	9.8	0.8	0.5	
TDS (mg/L)	501	03/24/15-06/18/19	O	8	8	489.0	544.0	510.5	501	18.5	0.5	
TSS (mg/L)	< 10	03/24/15-06/18/19	O	8	1	< 10	< 10					
Tot Alk (mg/L)	210	03/24/15-06/18/19	O	8	8	210.0	230.0	218.7	220	6.4	1.4	L
Ca (mg/L)	77	06/18/19	O	1	1	77.0	77.0	77.0	77	0	0.0	H
Chloride (mg/L)	< 1	03/24/15-06/18/19	O	8	1	< 1	< 1					
F (mg/L)	0.8	03/24/15-06/18/19	O	8	8	0.8	0.9	0.8	0.8	0	0.0	L

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Tot Hard (mg/L)	394	03/24/15-06/18/19	O	8	8	356.0	414.0	384.0	390	18.8	0.5	
Mg (mg/L)	49	06/18/19	O	1	1	49.0	49.0	49.0	49	0	0.0	H
K (mg/L)	5	06/18/19	O	1	1	5.0	5.0	5.0	5	0	0.0	H
Na (mg/L)	11	06/18/19	O	1	1	11.0	11.0	11.0	11	0	0.0	H
SO4 (mg/L)	204	03/24/15-06/18/19	O	8	8	185.0	204.0	196.1	199	7	1.1	H
Nitrate + (mg/L)	< 0.01	03/24/15-06/18/19	O	8	0	< 0.01	< 0 .01					
Al (DIS) (mg/L)	< 0.009	06/18/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	06/18/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	0.059	06/18/19	O	1	1	0.059	0.059	0.059	0.059	0	0.0	H
Ba (DIS) (mg/L)	0.036	06/18/19	O	1	1	0.036	0.036	0.036	0.036	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/18/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/18/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/18/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/18/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	06/18/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	0.39	06/18/19	O	1	1	0.39	0.39	0.39	0.39	0	0.0	H
Pb (DIS) (mg/L)	< 0.0003	06/18/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	0.143	06/18/19	O	1	1	0.143	0.143	0.143	0.143	0	0.0	H
Hg (DIS) (ug/L)	< 0.005	06/18/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	06/18/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	06/18/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	06/18/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	06/18/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	13.2	06/18/19	O	1	1	13.2	13.2	13.2	13.2	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	06/18/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0009	06/18/19	O	1	1	0.0009	0.0009	0.0009	0.0009	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	06/18/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-207 LAB NO: H19060528-008

STATION:PW-2

06/18/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	49.29	09/20/16-06/18/19	O	7	7	49.29	57.37	53.81	54.01	2.62	1.73	L
DO (mg/L)	0.04	09/20/16-06/18/19	O	7	7	0.04	0.52	0.09	0.06	0.19	0.28	L
EH (Millivolts)	80.57	06/12/18-06/18/19	O	3	3	80.57	118.44	95.85	92.29	19.39	0.79	L
pH Fld (s.u.)	7.37	11/22/11-06/18/19	O	8	8	7.16	7.48	7.34	7.35	0.09	0.34	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

SC Fld (umhos/cm)	517	11/22/11-06/18/19	O	8	8	517.0	782.0	567.6	539.5	87.3	0.6	L
Water Temp (Deg C)	8.4	11/22/11-06/18/19	O	8	8	6.8	8.7	7.9	8.4	0.8	0.6	
TDS (mg/L)	299	11/22/11-06/18/19	O	8	8	299.0	482.0	326.6	307.5	61.7	0.4	L
TSS (mg/L)	< 10	09/20/16-06/18/19	O	7	2	< 10	< 10					
Tot Alk (mg/L)	230	11/22/11-06/18/19	O	8	8	230.0	270.0	247.3	250	11.6	1.5	L
Ca (mg/L)	57	06/18/19	O	1	1	57.0	57.0	57.0	57	0	0.0	H
Chloride (mg/L)	1	11/22/11-06/18/19	O	8	8	1.0	2.0	1.3	1.2	0.4	0.7	L
F (mg/L)	0.8	11/22/11-06/18/19	O	8	8	0.8	0.9	0.9	0.9	0	0.0	L
Tot Hard (mg/L)	283	11/22/11-06/18/19	O	8	8	283.0	417.0	305.0	291	44.8	0.5	L
Mg (mg/L)	34	06/18/19	O	1	1	34.0	34.0	34.0	34	0	0.0	H
K (mg/L)	5	06/18/19	O	1	1	5.0	5.0	5.0	5	0	0.0	H
Na (mg/L)	3	06/18/19	O	1	1	3.0	3.0	3.0	3	0	0.0	H
SO4 (mg/L)	55	11/22/11-06/18/19	O	8	8	51.0	160.0	61.3	54.5	37.7	0.2	
Nitrate + (mg/L)	0.01	11/22/11-06/18/19	O	8	6	0.01	0.04	0.01	0.01	0.01	0.41	L
Al (DIS) (mg/L)	0.011	06/18/19	O	1	1	0.011	0.011	0.011	0.011	0	0.0	H
Sb (DIS) (mg/L)	< 0.0005	06/18/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	0.005	06/18/19	O	1	1	0.005	0.005	0.005	0.005	0	0.0	H
Ba (DIS) (mg/L)	0.033	06/18/19	O	1	1	0.033	0.033	0.033	0.033	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/18/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/18/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/18/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/18/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	06/18/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	3.28	06/18/19	O	1	1	3.28	3.28	3.28	3.28	0	0.0	H
Pb (DIS) (mg/L)	< 0.0003	06/18/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	0.059	06/18/19	O	1	1	0.059	0.059	0.059	0.059	0	0.0	H
Hg (DIS) (ug/L)	< 0.005	06/18/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	06/18/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	06/18/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	06/18/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	06/18/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.0846	06/18/19	O	1	1	0.0846	0.0846	0.0846	0.0846	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	06/18/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0003	06/18/19	O	1	1	0.0003	0.0003	0.0003	0.0003	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Zn (DIS) (mg/L)	< 0.002	06/18/19	O	1	0	< 0.002	< 0 .002						

SAMPLE NO BBC-1906-217 LAB NO: H19060528-018

STATION:PW-3

06/20/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	10.1	09/21/16-06/20/19	O	7	7	10.1	13.9	12.7	13.1	1.3	2.0	L
DO (mg/L)	0.02	05/10/12-06/20/19	O	8	8	0.0	0.4	0.04	0.06	0.14	0.12	
EH (Millivolts)	70.66	06/14/18-06/20/19	O	3	3	61.44	96.83	74.91	70.66	18.36	0.23	
pH Fld (s.u.)	7.35	05/10/12-06/20/19	O	9	9	6.98	7.54	7.29	7.32	0.16	0.39	
SC Fld (umhos/cm)	684	05/10/12-06/20/19	O	9	9	629.0	835.7	742.7	754	69.2	0.8	
Water Temp (Deg C)	6.7	05/10/12-06/20/19	O	9	9	5.1	10.7	7.0	6.9	1.5	0.2	
TDS (mg/L)	463	05/10/12-06/20/19	O	9	9	360.0	507.0	467.7	492	45	0.1	
TSS (mg/L)	10	01/16/14-06/20/19	O	8	5	10.0	13.0	10.9	10	1.4	0.7	L
Tot Alk (mg/L)	250	05/10/12-06/20/19	O	9	9	250.0	280.0	272.1	270	9.7	2.3	L
Ca (mg/L)	89	06/20/19	O	1	1	89.0	89.0	89.0	89	0	0.0	H
Chloride (mg/L)	1	05/10/12-06/20/19	O	9	9	1.0	2.0	1.3	1.1	0.5	0.6	L
F (mg/L)	0.4	05/10/12-06/20/19	O	9	9	0.4	0.5	0.4	0.4	0	0.0	L
Tot Hard (mg/L)	419	05/10/12-06/20/19	O	9	9	333.0	429.0	404.3	420	33.3	0.4	
Mg (mg/L)	48	06/20/19	O	1	1	48.0	48.0	48.0	48	0	0.0	H
K (mg/L)	4	06/20/19	O	1	1	4.0	4.0	4.0	4	0	0.0	H
Na (mg/L)	5	06/20/19	O	1	1	5.0	5.0	5.0	5	0	0.0	H
SO4 (mg/L)	149	05/10/12-06/20/19	O	9	9	92.0	177.0	143.4	151	25.1	0.2	
Nitrate + (mg/L)	0.02	05/10/12-06/20/19	O	9	7	0.01	0.07	0.02	0.02	0.02	0.11	
Al (DIS) (mg/L)	< 0.009	06/20/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	06/20/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	0.006	06/20/19	O	1	1	0.006	0.006	0.006	0.006	0	0.0	H
Ba (DIS) (mg/L)	0.012	06/20/19	O	1	1	0.012	0.012	0.012	0.012	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/20/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/20/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/20/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/20/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	5.9	06/20/19	O	1	1	5.9	5.9	5.9	5.9	0	0.0	H
Pb (DIS) (mg/L)	< 0.0003	06/20/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	0.047	06/20/19	O	1	1	0.047	0.047	0.047	0.047	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Hg (DIS) (ug/L)	< 0.005	06/20/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	06/20/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	0.0008	06/20/19	O	1	1	0.0008	0.0008	0.0008	0.0008	0	0.0	H
Ag (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.331	06/20/19	O	1	1	0.331	0.331	0.331	0.331	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0013	06/20/19	O	1	1	0.0013	0.0013	0.0013	0.0013	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-212 LAB NO: H19060528-013

STATION:PW-4

PARAMETER	06/19/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	50.36	09/20/16-06/19/19	O	7	7	50.36	53.9	52.48	53.05	1.43	1.48	L
DO (mg/L)	0.26	09/20/16-06/19/19	O	7	7	0.0	3.79	0.19	0.48	1.46	0.05	
EH (Millivolts)	104.84	06/13/18-06/19/19	O	3	3	104.84	161.87	133.07	138.86	28.69	0.98	L
pH Fld (s.u.)	7.01	05/17/12-06/19/19	O	8	8	7.01	7.33	7.13	7.08	0.12	0.97	L
SC Fld (umhos/cm)	604	05/17/12-06/19/19	O	8	8	543.0	722.0	626.5	637.5	57.8	0.4	
Water Temp (Deg C)	8.6	09/20/16-06/19/19	O	7	7	7.6	9.4	8.4	8.6	0.7	0.3	
TDS (mg/L)	405	05/17/12-06/19/19	O	8	8	380.0	457.0	419.8	419	25.3	0.6	
TSS (mg/L)	< 10	09/20/16-06/19/19	O	7	4	< 10	117.0	16.0	12	39.9	0.2	L
Tot Alk (mg/L)	160	05/17/12-06/19/19	O	8	8	160.0	230.0	178.9	175	22.7	0.8	L
Ca (mg/L)	74	06/19/19	O	1	1	74.0	74.0	74.0	74	0	0.0	H
Chloride (mg/L)	1	05/17/12-06/19/19	O	8	4	1.0	1.0					
F (mg/L)	0.3	05/17/12-06/19/19	O	8	8	0.3	0.4	0.3	0.3	0	0.0	L
Tot Hard (mg/L)	340	05/17/12-06/19/19	O	8	8	289.0	354.0	328.1	328.5	19.7	0.6	
Mg (mg/L)	38	06/19/19	O	1	1	38.0	38.0	38.0	38	0	0.0	H
K (mg/L)	2	06/19/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
Na (mg/L)	4	06/19/19	O	1	1	4.0	4.0	4.0	4	0	0.0	H
SO4 (mg/L)	163	05/17/12-06/19/19	O	8	8	120.0	176.0	157.9	162	17.7	0.3	
Nitrate + (mg/L)	0.02	05/17/12-06/19/19	O	8	7	< 0.01	0.09	0.03	0.03	0.03	0.29	
Al (DIS) (mg/L)	< 0.009	06/19/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	06/19/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	0.06	06/19/19	O	1	1	0.06	0.06	0.06	0.06	0	0.0	H
Ba (DIS) (mg/L)	0.041	06/19/19	O	1	1	0.041	0.041	0.041	0.041	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Be (DIS) (mg/L)	< 0.0008	06/19/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/19/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/19/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/19/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	06/19/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	11	06/19/19	O	1	1	11.0	11.0	11.0	11	0	0.0	H
Pb (DIS) (mg/L)	< 0.0003	06/19/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	0.142	06/19/19	O	1	1	0.142	0.142	0.142	0.142	0	0.0	H
Hg (DIS) (ug/L)	< 0.005	06/19/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	06/19/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	0.005	06/19/19	O	1	1	0.005	0.005	0.005	0.005	0	0.0	H
Se (DIS) (mg/L)	< 0.0002	06/19/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	06/19/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	9.62	06/19/19	O	1	1	9.62	9.62	9.62	9.62	0	0.0	H
Tl (DIS) (mg/L)	0.0005	06/19/19	O	1	1	0.0005	0.0005	0.0005	0.0005	0	0.0	H
U (DIS) (mg/L)	0.0012	06/19/19	O	1	1	0.0012	0.0012	0.0012	0.0012	0	0.0	H
Zn (DIS) (mg/L)	0.005	06/19/19	O	1	1	0.005	0.005	0.005	0.005	0	0.0	H

SAMPLE NO BBC-1906-210 LAB NO: H19060528-011

STATION:PW-8

06/19/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	39.76	08/20/14-06/19/19	O	8	8	39.76	88.22	48.68	46.33	15.6	0.57	L
DO (mg/L)	0.03	08/08/14-06/19/19	O	12	12	0.03	5.7	0.4	0.38	1.98	0.19	L
EH (Millivolts)	139.44	06/13/18-06/19/19	O	3	3	139.44	184.54	161.96	165.11	22.62	1.0	L
pH Fld (s.u.)	7.16	08/08/14-06/19/19	O	12	12	6.36	7.88	7.1	7.18	0.39	0.16	
SC Fld (umhos/cm)	508	08/08/14-06/19/19	O	12	12	496.0	608.6	547.9	549.5	31.9	1.2	
Water Temp (Deg C)	8	08/08/14-06/19/19	O	12	12	6.7	10.3	8.3	8.4	1	0.3	
TDS (mg/L)	322	08/08/14-06/19/19	O	12	12	318.0	392.0	349.0	349	20.2	1.3	
TSS (mg/L)	< 10	08/08/14-06/19/19	O	12	1	< 10	20.0					
Tot Alk (mg/L)	180	08/08/14-06/19/19	O	12	12	180.0	200.0	191.5	190	8.3	1.4	L
Ca (mg/L)	65	06/19/19	O	1	1	65.0	65.0	65.0	65	0	0.0	H
Chloride (mg/L)	< 1	08/08/14-06/19/19	O	12	1	< 1	< 1					
F (mg/L)	0.4	08/08/14-06/19/19	O	12	12	0.4	0.4	0.4	0.4	0	0.0	H
Tot Hard (mg/L)	294	08/08/14-06/19/19	O	12	12	276.0	321.0	293.6	297	15.2	0.0	
Mg (mg/L)	32	06/19/19	O	1	1	32.0	32.0	32.0	32	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

K (mg/L)	2	06/19/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
Na (mg/L)	3	06/19/19	O	1	1	3.0	3.0	3.0	3	0	0.0	H
SO4 (mg/L)	100	08/08/14-06/19/19	O	12	12	91.0	126.0	103.9	101	10.5	0.4	
Nitrate + (mg/L)	< 0.01	08/08/14-06/19/19	O	12	0	< 0.01	< 0 .01					
Al (DIS) (mg/L)	< 0.009	06/19/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	0.0009	06/19/19	O	1	1	0.0009	0.0009	0.0009	0.0009	0	0.0	H
As (DIS) (mg/L)	0.013	06/19/19	O	1	1	0.013	0.013	0.013	0.013	0	0.0	H
Ba (DIS) (mg/L)	0.037	06/19/19	O	1	1	0.037	0.037	0.037	0.037	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/19/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/19/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/19/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/19/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	06/19/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	0.87	06/19/19	O	1	1	0.87	0.87	0.87	0.87	0	0.0	H
Pb (DIS) (mg/L)	0.0077	06/19/19	O	1	1	0.0077	0.0077	0.0077	0.0077	0	0.0	H
Mn (DIS) (mg/L)	0.1	06/19/19	O	1	1	0.1	0.1	0.1	0.1	0	0.0	H
Hg (DIS) (ug/L)	< 0.005	06/19/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	06/19/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	06/19/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	06/19/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	06/19/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.745	06/19/19	O	1	1	0.745	0.745	0.745	0.745	0	0.0	H
Tl (DIS) (mg/L)	0.0026	06/19/19	O	1	1	0.0026	0.0026	0.0026	0.0026	0	0.0	H
U (DIS) (mg/L)	0.001	06/19/19	O	1	1	0.001	0.001	0.001	0.001	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	06/19/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-209 LAB NO: H19060528-010

STATION:PW-9

PARAMETER	06/18/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	45.69	09/19/16-06/18/19	O	7	7	43.12	45.69	44.66	45.22	1.09	0.94	H
DO (mg/L)	0.02	09/18/14-06/18/19	O	12	12	0.01	4.6	0.3	0.32	1.59	0.18	
EH (Millivolts)	147.72	06/13/18-06/18/19	O	3	3	147.72	180.17	161.39	157.95	16.59	0.82	L
pH Fld (s.u.)	7.1	09/18/14-06/18/19	O	12	12	6.1	7.2	6.9	7.1	0.4	0.6	
SC Fld (umhos/cm)	751	09/18/14-06/18/19	O	12	12	744.0	900.0	801.9	810	52.6	1.0	
Water Temp (Deg C)	8.7	09/18/14-06/18/19	O	12	12	6.8	10.9	9.3	9.6	1.2	0.5	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

TDS (mg/L)	544	09/18/14-06/18/19	O	12	12	525.0	604.0	562.3	566.5	27.4	0.7	
TSS (mg/L)	< 10	09/18/14-06/18/19	O	12	0	< 10	< 10					
Tot Alk (mg/L)	210	09/18/14-06/18/19	O	12	12	200.0	210.0	207.5	210	4.5	0.6	H
Ca (mg/L)	87	06/18/19	O	1	1	87.0	87.0	87.0	87	0	0.0	H
Chloride (mg/L)	1	09/18/14-06/18/19	O	12	12	1.0	2.0	1.1	1	0.4	0.4	L
F (mg/L)	0.6	09/18/14-06/18/19	O	12	12	0.6	0.7	0.6	0.7	0.1	0.5	L
Tot Hard (mg/L)	441	09/18/14-06/18/19	O	12	12	381.0	459.0	422.8	424.5	25.4	0.7	
Mg (mg/L)	54	06/18/19	O	1	1	54.0	54.0	54.0	54	0	0.0	H
K (mg/L)	3	06/18/19	O	1	1	3.0	3.0	3.0	3	0	0.0	H
Na (mg/L)	13	06/18/19	O	1	1	13.0	13.0	13.0	13	0	0.0	H
SO4 (mg/L)	244	09/18/14-06/18/19	O	12	12	230.0	280.0	250.4	248	15.9	0.4	
Nitrate + (mg/L)	< 0.01	09/18/14-06/18/19	O	12	5	< 0.01	0.04					
Al (DIS) (mg/L)	< 0.009	06/18/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	06/18/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	0.086	06/18/19	O	1	1	0.086	0.086	0.086	0.086	0	0.0	H
Ba (DIS) (mg/L)	0.012	06/18/19	O	1	1	0.012	0.012	0.012	0.012	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/18/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/18/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/18/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/18/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	06/18/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	2.18	06/18/19	O	1	1	2.18	2.18	2.18	2.18	0	0.0	H
Pb (DIS) (mg/L)	< 0.0003	06/18/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	0.04	06/18/19	O	1	1	0.04	0.04	0.04	0.04	0	0.0	H
Hg (DIS) (ug/L)	< 0.005	06/18/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	06/18/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	06/18/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	06/18/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	06/18/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	9.29	06/18/19	O	1	1	9.29	9.29	9.29	9.29	0	0.0	H
Tl (DIS) (mg/L)	0.0009	06/18/19	O	1	1	0.0009	0.0009	0.0009	0.0009	0	0.0	H
U (DIS) (mg/L)	0.0014	06/18/19	O	1	1	0.0014	0.0014	0.0014	0.0014	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	06/18/19	O	1	0	< 0.002	< 0 .002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: July 31, 2019

SAMPLE NO BBC-1906-203	LAB NO: H19060528-004	STATION:SC15-184

06/17/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	-9999	06/17/19	O	1	1	-9999.0	-9999.0	0.0	0	0	0.0	H
DO (mg/L)	7.32	08/04/15-06/17/19	O	9	9	4.58	8.34	6.27	6.35	1.2	0.88	
EH (Millivolts)	507.88	06/13/18-06/17/19	O	4	4	247.81	507.88	352.43	351.81	110.89	1.4	H
pH Fld (s.u.)	7.93	08/04/15-06/17/19	O	9	9	7.32	8.01	7.84	7.92	0.21	0.45	
SC Fld (umhos/cm)	365	08/04/15-06/17/19	O	9	9	333.0	380.0	363.2	365	13.6	0.1	
Water Temp (Deg C)	6.6	08/04/15-06/17/19	O	9	9	5.8	6.8	6.4	6.5	0.4	0.6	
TDS (mg/L)	194	08/04/15-06/17/19	O	9	9	194.0	214.0	199.2	197	6.9	0.8	L
TSS (mg/L)	< 10	08/04/15-06/17/19	O	9	1	< 10	110.0					
Tot Alk (mg/L)	180	08/04/15-06/17/19	O	9	9	180.0	190.0	186.6	190	5	1.3	L
Ca (mg/L)	41	06/17/19	O	1	1	41.0	41.0	41.0	41	0	0.0	H
Chloride (mg/L)	< 1	08/04/15-06/17/19	O	9	0	< 1	< 1					
F (mg/L)	0.2	08/04/15-06/17/19	O	9	9	0.2	0.2	0.2	0.2	0	0.0	H
Tot Hard (mg/L)	206	08/04/15-06/17/19	O	9	9	192.0	215.0	203.2	203	7.7	0.4	
Mg (mg/L)	25	06/17/19	O	1	1	25.0	25.0	25.0	25	0	0.0	H
K (mg/L)	< 1	06/17/19	O	1	0	< 1	< 1					
Na (mg/L)	2	06/17/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	15	08/04/15-06/17/19	O	9	9	11.0	16.0	13.8	14	1.9	0.6	
Nitrate + (mg/L)	0.28	08/04/15-06/17/19	O	9	9	0.24	0.3	0.26	0.25	0.02	1.04	
Al (DIS) (mg/L)	< 0.009	06/17/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	06/17/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	06/17/19	O	1	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.086	06/17/19	O	1	1	0.086	0.086	0.086	0.086	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/17/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/17/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/17/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/17/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	06/17/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	06/17/19	O	1	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	06/17/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	06/17/19	O	1	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	06/17/19	O	1	0	< 0.005	< 0 .005					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Mo (DIS) (mg/L)	< 0.002	06/17/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	06/17/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	0.0011	06/17/19	O	1	1	0.0011	0.0011	0.0011	0.0011	0	0.0	H
Ag (DIS) (mg/L)	< 0.0002	06/17/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.116	06/17/19	O	1	1	0.116	0.116	0.116	0.116	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	06/17/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.001	06/17/19	O	1	1	0.001	0.001	0.001	0.001	0	0.0	H
Zn (DIS) (mg/L)	0.013	06/17/19	O	1	1	0.013	0.013	0.013	0.013	0	0.0	H

SAMPLE NO BBC-1906-205 LAB NO: H19060528-006

STATION:SC15-185

06/18/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	24.18	08/04/15-06/18/19	O	14	14	23.4	37.21	30.53	30.96	4.07	1.56	
DO (mg/L)	4.5	08/04/15-06/18/19	O	14	14	1.1	6.2	4.1	4.8	1.3	0.3	
EH (Millivolts)	479.88	03/22/18-06/18/19	O	5	5	250.48	479.88	354.22	364.5	88.85	1.41	H
pH Fld (s.u.)	7.84	08/04/15-06/18/19	O	14	14	6.1	8.27	7.75	7.9	0.53	0.16	
SC Fld (umhos/cm)	395	08/04/15-06/18/19	O	14	14	3.9	474.3	290.3	397	109.3	1.0	
Water Temp (Deg C)	6.6	08/04/15-06/18/19	O	14	14	1.6	11.1	5.3	5.4	2.1	0.6	
TDS (mg/L)	217	08/04/15-06/18/19	O	14	14	208.0	227.0	217.7	218.5	4.8	0.2	
TSS (mg/L)	< 10	08/04/15-06/18/19	O	14	2	< 4	29.0					
Tot Alk (mg/L)	200	08/04/15-06/18/19	O	14	14	200.0	210.0	204.2	200	5.1	0.8	L
Ca (mg/L)	47	06/18/19	O	1	1	47.0	47.0	47.0	47	0	0.0	H
Chloride (mg/L)	< 1	08/04/15-06/18/19	O	14	1	< 1	< 1					
F (mg/L)	0.1	08/04/15-06/18/19	O	14	14	0.1	0.2	0.1	0.1	0.1	0.3	L
Tot Hard (mg/L)	208	08/04/15-06/18/19	O	14	14	191.0	219.0	205.8	207	8.2	0.3	
Mg (mg/L)	22	06/18/19	O	1	1	22.0	22.0	22.0	22	0	0.0	H
K (mg/L)	2	06/18/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
Na (mg/L)	4	06/18/19	O	1	1	4.0	4.0	4.0	4	0	0.0	H
SO4 (mg/L)	12	08/04/15-06/18/19	O	14	14	8.9	15.0	10.9	11	1.8	0.6	
Nitrate + (mg/L)	0.25	08/04/15-06/18/19	O	14	14	0.21	0.38	0.29	0.3	0.05	0.7	
Al (DIS) (mg/L)	< 0.009	06/18/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	06/18/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	06/18/19	O	1	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.065	06/18/19	O	1	1	0.065	0.065	0.065	0.065	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/18/19	O	1	0	< 0.0008	: 0 .0008					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Cd (DIS) (mg/L)	< 0	06/18/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/18/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/18/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	06/18/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	06/18/19	O	1	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	06/18/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	06/18/19	O	1	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	06/18/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	0.004	06/18/19	O	1	1	0.004	0.004	0.004	0.004	0	0.0	H
Ni (DIS) (mg/L)	< 0.001	06/18/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	06/18/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	06/18/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.234	06/18/19	O	1	1	0.234	0.234	0.234	0.234	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	06/18/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.003	06/18/19	O	1	1	0.003	0.003	0.003	0.003	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	06/18/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-206 LAB NO: H19060528-007 STATION:SC15-194

PARAMETER	06/18/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	18.22	08/04/15-06/18/19	O	13	13	17.69	87.56	22.52	20.43	18.74	0.23	
DO (mg/L)	0.42	08/04/15-06/18/19	O	14	14	0.34	10.1	1.86	2.13	2.84	0.51	
EH (Millivolts)	240.79	03/22/18-06/18/19	O	5	5	106.14	240.79	182.35	200.02	53.29	1.1	H
pH Fld (s.u.)	7.76	08/04/15-06/18/19	O	14	14	6.49	8.1	7.68	7.77	0.39	0.22	
SC Fld (umhos/cm)	379	08/04/15-06/18/19	O	14	14	358.0	467.2	395.9	394	25.6	0.7	
Water Temp (Deg C)	7.7	08/04/15-06/18/19	O	14	14	4.5	17.9	7.1	7	3.4	0.2	
TDS (mg/L)	207	08/04/15-06/18/19	O	14	14	207.0	227.0	216.1	216	5.6	1.6	L
TSS (mg/L)	< 10	08/04/15-06/18/19	O	14	4	4.0	20.0					
Tot Alk (mg/L)	160	08/04/15-06/18/19	O	14	14	160.0	180.0	177.0	180	6.1	2.8	L
Ca (mg/L)	44	06/18/19	O	1	1	44.0	44.0	44.0	44	0	0.0	H
Chloride (mg/L)	< 1	08/04/15-06/18/19	O	14	0	< 1	< 1					
F (mg/L)	0.3	08/04/15-06/18/19	O	14	14	0.3	0.4	0.3	0.3	0	0.0	L
Tot Hard (mg/L)	211	08/04/15-06/18/19	O	14	14	193.0	218.0	208.1	208.5	6.4	0.4	
Mg (mg/L)	25	06/18/19	O	1	1	25.0	25.0	25.0	25	0	0.0	H
K (mg/L)	< 1	06/18/19	O	1	0	< 1	< 1					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Na (mg/L)	2	06/18/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	32	08/04/15-06/18/19	O	14	14	28.0	36.0	31.6	31.5	2.4	0.2	
Nitrate + (mg/L)	< 0.01	08/04/15-06/18/19	O	14	0	< 0.01	< 0 .01					
Al (DIS) (mg/L)	< 0.009	06/18/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	06/18/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	06/18/19	O	1	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.034	06/18/19	O	1	1	0.034	0.034	0.034	0.034	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/18/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/18/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/18/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/18/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	06/18/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	0.03	06/18/19	O	1	1	0.03	0.03	0.03	0.03	0	0.0	H
Pb (DIS) (mg/L)	< 0.0003	06/18/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	06/18/19	O	1	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	06/18/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	06/18/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	06/18/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	06/18/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	06/18/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.0678	06/18/19	O	1	1	0.0678	0.0678	0.0678	0.0678	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	06/18/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0008	06/18/19	O	1	1	0.0008	0.0008	0.0008	0.0008	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	06/18/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-204 LAB NO: H19060528-005 STATION:SC15-198

06/18/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	34.64	09/16/15-06/18/19	O	13	13	31.69	46.45	40.17	41.7	4.78	1.16	
DO (mg/L)	6.94	09/16/15-06/18/19	O	13	13	4.76	9.63	7.63	8.28	1.37	0.51	
EH (Millivolts)	464.96	03/22/18-06/18/19	O	5	5	276.92	464.96	347.62	355.42	78.56	1.49	H
pH Fld (s.u.)	7.71	09/16/15-06/18/19	O	13	13	7.39	7.93	7.67	7.7	0.16	0.22	
SC Fld (umhos/cm)	421	09/16/15-06/18/19	O	13	13	416.0	508.7	434.8	427	24.6	0.6	
Water Temp (Deg C)	6.7	09/16/15-06/18/19	O	13	13	3.4	17.5	6.6	5.9	4.6	0.0	
TDS (mg/L)	231	09/16/15-06/18/19	O	13	13	223.0	251.0	233.2	233	7.7	0.3	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

TSS (mg/L)	< 10	09/16/15-06/18/19	O	13	1	< 4	< 10					
Tot Alk (mg/L)	210	09/16/15-06/18/19	O	13	13	210.0	230.0	222.2	220	7.3	1.7	L
Ca (mg/L)	48	06/18/19	O	1	1	48.0	48.0	48.0	48	0	0.0	H
Chloride (mg/L)	2	09/16/15-06/18/19	O	13	13	1.6	4.0	2.2	2	0.7	0.3	
F (mg/L)	0.1	09/16/15-06/18/19	O	13	13	0.1	0.2	0.1	0.1	0	0.0	L
Tot Hard (mg/L)	227	09/16/15-06/18/19	O	13	13	222.0	248.0	230.6	228	7.6	0.5	
Mg (mg/L)	26	06/18/19	O	1	1	26.0	26.0	26.0	26	0	0.0	H
K (mg/L)	< 1	06/18/19	O	1	0	< 1	< 1					
Na (mg/L)	3	06/18/19	O	1	1	3.0	3.0	3.0	3	0	0.0	H
SO4 (mg/L)	8	09/16/15-06/18/19	O	13	13	6.0	9.0	7.3	7	0.9	0.8	
Nitrate + (mg/L)	0.56	09/16/15-06/18/19	O	13	13	0.52	0.72	0.62	0.61	0.06	0.94	
Al (DIS) (mg/L)	< 0.009	06/18/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	06/18/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	06/18/19	O	1	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.307	06/18/19	O	1	1	0.307	0.307	0.307	0.307	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/18/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/18/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/18/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/18/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	06/18/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	06/18/19	O	1	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	06/18/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	06/18/19	O	1	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	06/18/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	06/18/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	06/18/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	0.0003	06/18/19	O	1	1	0.0003	0.0003	0.0003	0.0003	0	0.0	H
Ag (DIS) (mg/L)	< 0.0002	06/18/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.098	06/18/19	O	1	1	0.098	0.098	0.098	0.098	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	06/18/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0007	06/18/19	O	1	1	0.0007	0.0007	0.0007	0.0007	0	0.0	H
Zn (DIS) (mg/L)	0.006	06/18/19	O	1	1	0.006	0.006	0.006	0.006	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: July 31, 2019

SAMPLE NO BBC-1906-108	LAB NO: H19060535-001	STATION:SP-10

06/18/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	7.73	05/23/18-06/18/19	O	10	10	6.76	8.93	8.0	8.03	0.63	0.44	
pH Fld (s.u.)	7.69	05/23/18-06/18/19	O	10	10	6.92	8.09	7.57	7.57	0.33	0.36	
SC Fld (umhos/cm)	395	05/23/18-06/18/19	O	10	10	305.0	434.0	393.9	407	40.5	0.0	
Flow (Gallons Per Min)	25.13	05/23/18-06/18/19	O	9	9	0.58	59.69	7.02	11.22	23.16	0.78	
Water Temp (Deg C)	6.2	05/23/18-06/18/19	O	10	10	4.6	10.1	7.0	7.2	1.5	0.6	
TDS (mg/L)	216	05/23/18-06/18/19	O	10	10	196.0	234.0	220.7	227	14.1	0.3	
TSS (mg/L)	< 10	05/23/18-06/18/19	O	10	3	< 10	68.0					
Tot Alk (mg/L)	200	05/23/18-06/18/19	O	10	10	180.0	220.0	208.6	215	13.7	0.6	
Ca (mg/L)	52	05/29/19-06/18/19	O	2	2	51.0	52.0	51.5	51.5	0.7	0.7	H
Chloride (mg/L)	< 1	05/23/18-06/18/19	O	10	0	< 1	< 1					
F (mg/L)	0.1	05/23/18-06/18/19	O	10	10	0.1	0.1	0.1	0.1	0	0.0	H
Tot Hard (mg/L)	204	05/23/18-06/18/19	O	10	10	193.0	245.0	220.1	219	17.5	0.9	
Mg (mg/L)	18	05/29/19-06/18/19	O	2	2	18.0	18.0	18.0	18	0	0.0	H
K (mg/L)	< 1	05/29/19-06/18/19	O	2	0	< 1	< 1					
Na (mg/L)	2	05/29/19-06/18/19	O	2	2	1.0	2.0	1.4	1.5	0.7	0.8	H
SO4 (mg/L)	12	05/23/18-06/18/19	O	10	10	8.0	17.0	12.9	13.5	3	0.3	
Nitrate + (mg/L)	0.14	05/23/18-06/18/19	O	10	10	0.06	0.28	0.19	0.22	0.07	0.66	
Al (DIS) (mg/L)	< 0.009	05/29/19-06/18/19	O	2	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	05/29/19-06/18/19	O	2	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	05/29/19-06/18/19	O	2	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.05	05/29/19-06/18/19	O	2	2	0.05	0.05	0.05	0.05	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	05/29/19-06/18/19	O	2	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	05/29/19-06/18/19	O	2	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	05/29/19-06/18/19	O	2	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	05/29/19-06/18/19	O	2	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	05/29/19-06/18/19	O	2	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	05/29/19-06/18/19	O	2	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	05/29/19-06/18/19	O	2	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	05/29/19-06/18/19	O	2	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	05/29/19-06/18/19	O	2	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	05/29/19-06/18/19	O	2	0	< 0.002	< 0 .002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Ni (DIS) (mg/L)	< 0.001	05/29/19-06/18/19	O	2	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	05/29/19-06/18/19	O	2	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	05/29/19-06/18/19	O	2	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.109	05/29/19-06/18/19	O	2	2	0.102	0.109	0.105	0.106	0.005	0.712	H
Tl (DIS) (mg/L)	< 0.0002	05/29/19-06/18/19	O	2	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0007	05/29/19-06/18/19	O	2	2	0.0007	0.0007	0.0007	0.0007	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	05/29/19-06/18/19	O	2	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-118 LAB NO: H19060535-005 STATION:SP-3

06/19/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	9.07	07/20/11-06/19/19	O	29	29	5.41	19.38	9.51	9.53	2.37	0.19	
pH Fld (s.u.)	7.26	07/20/11-06/19/19	O	28	28	6.2	8.66	7.35	7.35	0.59	0.15	
SC Fld (umhos/cm)	129	07/20/11-06/19/19	O	29	29	103.0	223.0	161.4	177	39	0.8	
Flow (Gallons Per Min)	2.6	07/20/11-06/19/19	O	27	26	< 0	8.1	0.7	0.6	2	1.0	
Water Temp (Deg C)	7.3	07/20/11-06/19/19	O	29	29	1.7	15.8	6.7	7.4	3.6	0.2	
TDS (mg/L)	118	07/20/11-06/19/19	O	29	29	118.0	214.0	140.3	134	22.1	1.0	L
TSS (mg/L)	< 10	08/28/13-06/19/19	O	27	15	< 10	191.0	23.8	14	51.7	0.3	L
Tot Alk (mg/L)	54	07/20/11-06/19/19	O	29	29	44.0	100.0	74.4	78	20.5	1.0	
Ca (mg/L)	17	05/29/19-06/19/19	O	2	2	17.0	17.0	17.0	17	0	0.0	H
Chloride (mg/L)	< 1	07/20/11-06/19/19	O	29	4	< 1	2.0					
F (mg/L)	0.1	07/20/11-06/19/19	O	29	29	0.1	0.1	0.1	0.1	0	0.0	H
Tot Hard (mg/L)	58	07/20/11-06/19/19	O	29	29	48.0	109.0	78.6	83	18.3	1.1	
Mg (mg/L)	4	05/29/19-06/19/19	O	2	2	4.0	4.0	4.0	4	0	0.0	H
K (mg/L)	2	05/29/19-06/19/19	O	2	2	1.0	2.0	1.4	1.5	0.7	0.8	H
Na (mg/L)	2	05/29/19-06/19/19	O	2	2	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	6	07/20/11-06/19/19	O	29	29	3.0	7.0	5.1	5.3	1.2	0.8	
Nitrate + (mg/L)	0.17	07/20/11-06/19/19	O	29	29	0.1	0.43	0.28	0.29	0.07	1.53	
Al (DIS) (mg/L)	0.198	05/29/19-06/19/19	O	2	2	0.198	1.2	0.487	0.699	0.709	0.408	L
Sb (DIS) (mg/L)	< 0.0005	05/29/19-06/19/19	O	2	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	0.002	05/29/19-06/19/19	O	2	2	0.002	0.002	0.002	0.002	0	0.0	H
Ba (DIS) (mg/L)	0.229	05/29/19-06/19/19	O	2	2	0.214	0.229	0.221	0.222	0.011	0.693	H
Be (DIS) (mg/L)	< 0.0008	05/29/19-06/19/19	O	2	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	05/29/19-06/19/19	O	2	1	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	05/29/19-06/19/19	O	2	0	< 0.01	< 0 .01					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Co (DIS) (mg/L)	< 0.01	05/29/19-06/19/19	O	2	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	0.003	05/29/19-06/19/19	O	2	2	0.003	0.004	0.003	0.004	0.001	0.464	L
Fe (DIS) (mg/L)	0.45	05/29/19-06/19/19	O	2	2	0.45	0.81	0.6	0.63	0.25	0.61	L
Pb (DIS) (mg/L)	< 0.0003	05/29/19-06/19/19	O	2	1	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	05/29/19-06/19/19	O	2	1	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	0.009	05/29/19-06/19/19	O	2	2	0.009	0.02	0.013	0.015	0.008	0.552	L
Mo (DIS) (mg/L)	< 0.002	05/29/19-06/19/19	O	2	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	0.002	05/29/19-06/19/19	O	2	2	0.002	0.003	0.002	0.003	0.001	0.449	L
Se (DIS) (mg/L)	< 0.0002	05/29/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	05/29/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.0546	05/29/19-06/19/19	O	2	2	0.0473	0.0546	0.0508	0.051	0.0052	0.7271	H
Tl (DIS) (mg/L)	< 0.0002	05/29/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	< 0.0002	05/29/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
Zn (DIS) (mg/L)	< 0.002	05/29/19-06/19/19	O	2	1	< 0.002	0.004					

SAMPLE NO BBC-1906-121 LAB NO: H19060535-007

STATION:SP-4

06/19/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	9.1	07/21/11-06/19/19	O	51	51	6.7	14.0	9.8	9.7	1.4	0.5	
pH Fld (s.u.)	7.7	07/21/11-06/19/19	O	50	50	7.0	8.6	7.7	7.7	0.3	0.0	
SC Fld (umhos/cm)	422	07/21/11-06/19/19	O	51	51	162.0	481.0	420.3	432	47.7	0.0	
Flow (Gallons Per Min)	25.13	07/21/11-06/19/19	O	43	43	0.0	50.27	3.17	5.39	10.6	2.07	
Water Temp (Deg C)	7.2	07/21/11-06/19/19	O	50	50	0.1	12.2	5.6	6.5	2.2	0.7	
TDS (mg/L)	241	07/21/11-06/19/19	O	52	52	202.0	272.0	247.0	249.5	13.7	0.4	
TSS (mg/L)	< 10	08/28/13-06/19/19	O	49	30	5.0	890.0	20.9	12	130.5	0.1	
Tot Alk (mg/L)	190	07/21/11-06/19/19	O	52	52	190.0	210.0	200.9	200	5	2.2	L
Ca (mg/L)	47	05/30/19-06/19/19	O	2	2	46.0	47.0	46.5	46.5	0.7	0.7	H
Chloride (mg/L)	< 1	07/21/11-06/19/19	O	52	14	1.0	1.0					
F (mg/L)	0.2	07/21/11-06/19/19	O	52	52	0.2	0.3	0.2	0.2	0	0.0	L
Tot Hard (mg/L)	216	07/21/11-06/19/19	O	51	51	208.0	255.0	235.8	238	11.7	1.7	
Mg (mg/L)	24	05/30/19-06/19/19	O	2	2	24.0	24.0	24.0	24	0	0.0	H
K (mg/L)	2	05/30/19-06/19/19	O	2	2	2.0	2.0	2.0	2	0	0.0	H
Na (mg/L)	2	05/30/19-06/19/19	O	2	2	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	33	07/21/11-06/19/19	O	52	52	10.0	45.0	35.2	38	6.7	0.3	
Nitrate + (mg/L)	0.3	07/21/11-06/19/19	O	52	52	0.2	0.4	0.3	0.3	0	0.0	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Al (DIS) (mg/L)	0.01	05/30/19-06/19/19	O	2	1	< 0.01	0.01					
Sb (DIS) (mg/L)	< 0.0005	05/30/19-06/19/19	O	2	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	05/30/19-06/19/19	O	2	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.109	05/30/19-06/19/19	O	2	2	0.108	0.109	0.108	0.109	0.001	0.501	H
Be (DIS) (mg/L)	< 0.0008	05/30/19-06/19/19	O	2	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	05/30/19-06/19/19	O	2	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	05/30/19-06/19/19	O	2	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	05/30/19-06/19/19	O	2	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	05/30/19-06/19/19	O	2	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	0.03	05/30/19-06/19/19	O	2	1	< 0.02	0.03					
Pb (DIS) (mg/L)	< 0.0003	05/30/19-06/19/19	O	2	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	0.007	05/30/19-06/19/19	O	2	1	< 0.005	0.007					
Hg (DIS) (ug/L)	< 0.005	05/30/19-06/19/19	O	2	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	05/30/19-06/19/19	O	2	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	05/30/19-06/19/19	O	2	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	0.0003	05/30/19-06/19/19	O	2	2	0.0003	0.0003	0.0003	0.0003	0	0.0	H
Ag (DIS) (mg/L)	< 0.0002	05/30/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.0704	05/30/19-06/19/19	O	2	2	0.0698	0.0704	0.0701	0.0701	0.0004	0.7516	H
Tl (DIS) (mg/L)	0.0003	05/30/19-06/19/19	O	2	2	0.0003	0.0003	0.0003	0.0003	0	0.0	H
U (DIS) (mg/L)	0.0005	05/30/19-06/19/19	O	2	2	0.0004	0.0005	0.0004	0.0005	0.0001	0.5279	H
Zn (DIS) (mg/L)	< 0.002	05/30/19-06/19/19	O	2	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-120 LAB NO: H19060535-006

STATION:SP-6

06/19/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	9.2	10/12/11-06/19/19	O	44	44	6.7	282.0	10.6	9.7	41.1	0.0	
pH Fld (s.u.)	7.67	10/12/11-06/19/19	O	43	43	5.81	8.72	7.32	7.45	0.66	0.53	
SC Fld (umhos/cm)	188	10/12/11-06/19/19	O	44	44	188.0	327.0	266.4	268	19.3	4.1	*L
Flow (Gallons Per Min)	3.36	10/12/11-06/19/19	O	42	34	0.27	3.5	1.06	1	0.82	2.8	
Water Temp (Deg C)	7.2	10/12/11-06/19/19	O	43	43	4.4	10.3	7.2	7.5	1.4	0.0	
TDS (mg/L)	164	10/12/11-06/19/19	O	44	44	145.0	188.0	160.9	160.5	8.2	0.4	
TSS (mg/L)	< 10	08/28/13-06/19/19	O	42	13	< 4	216.0					
Tot Alk (mg/L)	130	10/12/11-06/19/19	O	44	44	120.0	160.0	134.4	130	7	0.6	
Ca (mg/L)	33	05/30/19-06/19/19	O	2	2	32.0	33.0	32.5	32.5	0.7	0.7	H
Chloride (mg/L)	< 1	10/12/11-06/19/19	O	44	10	1.0	2.0					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

F (mg/L)	0.1	10/12/11-06/19/19	O	44	44	0.1	0.2	0.2	0.2	0	0.0	L
Tot Hard (mg/L)	133	10/12/11-06/19/19	O	44	44	129.0	160.0	140.3	141	6.9	1.1	
Mg (mg/L)	12	05/30/19-06/19/19	O	2	2	12.0	12.0	12.0	12	0	0.0	H
K (mg/L)	< 1	05/30/19-06/19/19	O	2	0	< 1	< 1					
Na (mg/L)	2	05/30/19-06/19/19	O	2	2	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	10	10/12/11-06/19/19	O	44	44	7.0	12.0	9.0	9.5	1.6	0.6	
Nitrate + (mg/L)	0.41	10/12/11-06/19/19	O	44	44	0.31	0.68	0.39	0.37	0.07	0.35	
Al (DIS) (mg/L)	< 0.009	05/30/19-06/19/19	O	2	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	05/30/19-06/19/19	O	2	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	05/30/19-06/19/19	O	2	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.192	05/30/19-06/19/19	O	2	2	0.185	0.192	0.188	0.189	0.005	0.706	H
Be (DIS) (mg/L)	< 0.0008	05/30/19-06/19/19	O	2	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	05/30/19-06/19/19	O	2	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	05/30/19-06/19/19	O	2	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	05/30/19-06/19/19	O	2	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	05/30/19-06/19/19	O	2	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	05/30/19-06/19/19	O	2	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	05/30/19-06/19/19	O	2	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	05/30/19-06/19/19	O	2	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	05/30/19-06/19/19	O	2	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	05/30/19-06/19/19	O	2	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	05/30/19-06/19/19	O	2	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	05/30/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	05/30/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.0722	05/30/19-06/19/19	O	2	2	0.0697	0.0722	0.0709	0.071	0.0018	0.7006	H
Tl (DIS) (mg/L)	0.0005	05/30/19-06/19/19	O	2	2	0.0004	0.0005	0.0004	0.0005	0.0001	0.5279	H
U (DIS) (mg/L)	0.0004	05/30/19-06/19/19	O	2	2	0.0004	0.0004	0.0004	0.0004	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	05/30/19-06/19/19	O	2	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-125 LAB NO: H19060535-009

STATION:SP-7

06/19/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	2.7	03/26/15-06/19/19	O	48	48	2.3	11.0	3.7	3.5	1.7	0.6
pH Fld (s.u.)	7.24	03/26/15-06/19/19	O	47	47	6.17	8.18	7.38	7.37	0.33	0.43
SC Fld (umhos/cm)	329	03/26/15-06/19/19	O	48	48	196.0	354.0	320.7	330	30	0.3

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Flow (Gallons Per Min)	50.27	03/26/15-06/19/19	O	41	41	6.7	136.0	18.54	15.3	23.18	1.37	
Water Temp (Deg C)	7	03/26/15-06/19/19	O	47	47	5.1	7.4	6.5	6.7	0.6	0.8	
TDS (mg/L)	196	03/26/15-06/19/19	O	48	48	173.0	200.0	187.1	187	6.7	1.3	
TSS (mg/L)	< 10	03/26/15-06/19/19	O	48	7	< 4	146.0					
Tot Alk (mg/L)	160	03/26/15-06/19/19	O	48	48	160.0	170.0	166.2	170	4.9	1.3	L
Ca (mg/L)	40	05/30/19-06/19/19	O	2	2	40.0	41.0	40.5	40.5	0.7	0.7	L
Chloride (mg/L)	2	03/26/15-06/19/19	O	48	48	1.0	2.0	1.8	2	0.4	0.6	H
F (mg/L)	0.3	03/26/15-06/19/19	O	48	48	0.3	0.4	0.3	0.3	0	0.0	L
Tot Hard (mg/L)	156	03/26/15-06/19/19	O	48	48	153.0	178.0	167.6	167.5	5.9	2.0	
Mg (mg/L)	13	05/30/19-06/19/19	O	2	2	13.0	14.0	13.5	13.5	0.7	0.7	L
K (mg/L)	3	05/30/19-06/19/19	O	2	2	3.0	3.0	3.0	3	0	0.0	H
Na (mg/L)	5	05/30/19-06/19/19	O	2	2	5.0	5.0	5.0	5	0	0.0	H
SO4 (mg/L)	12	03/26/15-06/19/19	O	48	48	7.0	12.0	9.7	10	1.3	1.8	H
Nitrate + (mg/L)	0.33	03/26/15-06/19/19	O	48	48	0.27	0.41	0.31	0.31	0.03	0.68	
Al (DIS) (mg/L)	< 0.009	05/30/19-06/19/19	O	2	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	05/30/19-06/19/19	O	2	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	0.004	05/30/19-06/19/19	O	2	2	0.004	0.004	0.004	0.004	0	0.0	H
Ba (DIS) (mg/L)	0.118	05/30/19-06/19/19	O	2	2	0.113	0.118	0.115	0.116	0.004	0.632	H
Be (DIS) (mg/L)	< 0.0008	05/30/19-06/19/19	O	2	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	05/30/19-06/19/19	O	2	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	05/30/19-06/19/19	O	2	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	05/30/19-06/19/19	O	2	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	05/30/19-06/19/19	O	2	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	05/30/19-06/19/19	O	2	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	05/30/19-06/19/19	O	2	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	05/30/19-06/19/19	O	2	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	05/30/19-06/19/19	O	2	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	05/30/19-06/19/19	O	2	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	05/30/19-06/19/19	O	2	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	0.0003	05/30/19-06/19/19	O	2	2	0.0003	0.0003	0.0003	0.0003	0	0.0	H
Ag (DIS) (mg/L)	< 0.0002	05/30/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.171	05/30/19-06/19/19	O	2	2	0.165	0.171	0.168	0.168	0.004	0.757	H
Tl (DIS) (mg/L)	0.001	05/30/19-06/19/19	O	2	2	0.001	0.001	0.001	0.001	0	0.0	H
U (DIS) (mg/L)	0.0009	05/30/19-06/19/19	O	2	2	0.0009	0.0009	0.0009	0.0009	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Zn (DIS) (mg/L)	< 0.002	05/30/19-06/19/19	O	2	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-109 LAB NO: H19060536-002

STATION:SW-1

06/19/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	9.83	05/24/11-06/19/19	O	80	80	3.91	15.0	10.9	10.84	1.98	0.54	
pH Fld (s.u.)	8.24	05/24/11-06/19/19	O	79	79	5.3	8.71	7.85	8.07	0.66	0.59	
SC Fld (umhos/cm)	286	05/24/11-06/19/19	O	80	80	176.0	363.0	282.5	310	52.8	0.1	
Flow (Cubic Ft Sec)	91.93	05/24/11-06/19/19	O	60	60	0.0	613.0	17.88	27.97	95.28	0.78	
Gauge (Feet)	1.4	05/24/11-06/19/19	O	46	46	0.5	13.3	1.1	1	1.9	0.1	
Water Temp (Deg C)	7.8	05/24/11-06/19/19	O	80	80	-1.0	15.5	0.6	4.1	4.7	1.5	
TDS (mg/L)	186	05/24/11-06/19/19	O	72	72	107.0	227.0	168.9	181	25.8	0.7	
TSS (mg/L)	9	05/30/12-06/19/19	O	68	26	< 4	43.0					
Tot Alk (mg/L)	150	05/24/11-06/19/19	O	72	72	87.0	200.0	152.6	170	28.6	0.1	
Ca (mg/L)	42	05/30/19-06/19/19	O	2	2	28.0	42.0	34.3	35	9.9	0.8	H
Chloride (mg/L)	1	05/24/11-06/19/19	O	72	71	1.0	5.0	1.3	1	0.7	0.5	L
F (mg/L)	< 0.1	05/24/11-06/19/19	O	72	22	0.1	0.2					
Tot Hard (mg/L)	148	05/24/11-06/19/19	O	71	70	< 7	199.0	144.5	164	34.1	0.1	
Mg (mg/L)	10	05/30/19-06/19/19	O	2	2	7.0	10.0	8.4	8.5	2.1	0.8	H
K (mg/L)	1	05/30/19-06/19/19	O	2	1	1.0	1.0					
Na (mg/L)	2	05/30/19-06/19/19	O	2	2	1.0	2.0	1.4	1.5	0.7	0.8	H
SO4 (mg/L)	5	05/24/11-06/19/19	O	72	72	2.0	18.0	5.1	5	2.2	0.1	
Nitrate + (mg/L)	0.01	05/24/11-06/19/19	O	72	34	< 0.01	0.15					
P (mg/L)	0.018	05/30/19-06/19/19	O	2	2	0.018	0.021	0.019	0.02	0.002	0.721	L
Total Pers (mg/L)	0.17	04/29/15-06/19/19	O	46	42	< 0	1.12	0.13	0.15	0.17	0.26	
Al (DIS) (mg/L)	0.015	05/30/19-06/19/19	O	2	2	0.015	0.062	0.03	0.039	0.033	0.47	L
Sb (TRC) (mg/L)	< 0.0005	05/30/19-06/19/19	O	2	0	< 0.0005	: 0 .0005					
As (TRC) (mg/L)	< 0.001	05/30/19-06/19/19	O	2	0	< 0.001	< 0 .001					
Ba (TRC) (mg/L)	0.095	05/30/19-06/19/19	O	2	2	0.081	0.095	0.088	0.088	0.01	0.728	H
Be (TRC) (mg/L)	< 0.0008	05/30/19-06/19/19	O	2	0	< 0.0008	: 0 .0008					
Cd (TRC) (mg/L)	< 0	05/30/19-06/19/19	O	2	0	< 0	: .00003					
Cr (TRC) (mg/L)	< 0.01	05/30/19-06/19/19	O	2	0	< 0.01	< 0 .01					
Co (TRC) (mg/L)	< 0.01	05/30/19-06/19/19	O	2	0	< 0.01	< 0 .01					
Cu (TRC) (mg/L)	< 0.002	05/30/19-06/19/19	O	2	0	< 0.002	< 0 .002					
Fe (TRC) (mg/L)	0.26	05/30/19-06/19/19	O	2	2	0.26	0.6	0.39	0.43	0.24	0.56	L

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Pb (TRC) (mg/L)	< 0.0003	05/30/19-06/19/19	O	2	1	< 0.0003	: 0 .0003					
Mn (TRC) (mg/L)	0.017	05/30/19-06/19/19	O	2	2	0.015	0.017	0.016	0.016	0.001	1.031	H
Hg (TRC) (ug/L)	< 0.005	05/30/19-06/19/19	O	2	1	< 0.005	0.011					
Mo (TRC) (mg/L)	< 0.002	05/30/19-06/19/19	O	2	0	< 0.002	< 0 .002					
Ni (TRC) (mg/L)	< 0.001	05/30/19-06/19/19	O	2	1	< 0.001	< 0 .001					
Se (TRC) (mg/L)	< 0.0002	05/30/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
Ag (TRC) (mg/L)	< 0.0002	05/30/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
Sr (TRC) (mg/L)	0.124	05/30/19-06/19/19	O	2	2	0.09	0.124	0.105	0.107	0.024	0.775	H
Tl (TRC) (mg/L)	< 0.0002	05/30/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
U (TRC) (mg/L)	0.0003	05/30/19-06/19/19	O	2	2	0.0002	0.0003	0.0002	0.0003	0.0001	0.5505	H
Zn (TRC) (mg/L)	0.003	05/30/19-06/19/19	O	2	2	0.002	0.003	0.002	0.003	0.001	0.551	H

SAMPLE NO BBC-1906-103 LAB NO: H19060536-001 STATION:SW-11

PARAMETER	06/18/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	8.31	05/25/11-06/18/19	O	32	32	7.03	15.4	10.81	11.2	1.94	1.29	
pH Fld (s.u.)	8.27	05/25/11-06/18/19	O	32	32	7.45	8.69	8.21	8.25	0.29	0.22	
SC Fld (umhos/cm)	392	05/25/11-06/18/19	O	32	32	312.0	497.0	401.5	406.5	41	0.2	
Flow (Cubic Ft Sec)	2.68	05/25/11-06/18/19	O	24	24	0.0	21.4	0.79	1.02	4.26	0.44	
Gauge (Feet)	0.64	08/25/11-06/18/19	O	22	22	0.2	0.91	0.49	0.51	0.18	0.83	
Water Temp (Deg C)	10.1	05/25/11-06/18/19	O	32	32	-0.4	16.3	0.7	6.3	5.5	1.7	
TDS (mg/L)	226	05/25/11-06/18/19	O	32	32	166.0	282.0	229.2	233.5	24.4	0.1	
TSS (mg/L)	10	05/29/12-06/18/19	O	28	12	< 4	68.0					
Tot Alk (mg/L)	190	05/25/11-06/18/19	O	32	32	160.0	250.0	203.1	210	19.7	0.7	
Ca (mg/L)	50	06/18/19	O	1	1	50.0	50.0	50.0	50	0	0.0	H
Chloride (mg/L)	< 1	05/25/11-06/18/19	O	32	24	1.0	2.0	1.2	1	0.4	0.4	L
F (mg/L)	0.1	05/25/11-06/18/19	O	32	32	0.1	0.2	0.2	0.2	0	0.0	L
Tot Hard (mg/L)	208	05/25/11-06/18/19	O	32	32	156.0	267.0	216.4	225.5	26.6	0.3	
Mg (mg/L)	20	06/18/19	O	1	1	20.0	20.0	20.0	20	0	0.0	H
K (mg/L)	1	06/18/19	O	1	1	1.0	1.0	1.0	1	0	0.0	H
Na (mg/L)	2	06/18/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	16	05/25/11-06/18/19	O	32	32	9.0	46.0	19.2	19	7.9	0.4	
Nitrate + (mg/L)	0.09	05/25/11-06/18/19	O	32	29	0.01	0.24	0.06	0.06	0.07	0.49	
P (mg/L)	0.03	06/18/19	O	1	1	0.03	0.03	0.03	0.03	0	0.0	H
Total Pers (mg/L)	0.26	06/24/15-06/18/19	O	16	16	0.09	0.51	0.2	0.2	0.11	0.52	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Al (DIS) (mg/L)	< 0.009	06/18/19	O	1	0	< 0.009	< 0 .009					
Sb (TRC) (mg/L)	< 0.0005	06/18/19	O	1	0	< 0.0005	: 0 .0005					
As (TRC) (mg/L)	< 0.001	06/18/19	O	1	0	< 0.001	< 0 .001					
Ba (TRC) (mg/L)	0.095	06/18/19	O	1	1	0.095	0.095	0.095	0.095	0	0.0	H
Be (TRC) (mg/L)	< 0.0008	06/18/19	O	1	0	< 0.0008	: 0 .0008					
Cd (TRC) (mg/L)	< 0	06/18/19	O	1	0	< 0	: .00003					
Cr (TRC) (mg/L)	< 0.01	06/18/19	O	1	0	< 0.01	< 0 .01					
Co (TRC) (mg/L)	< 0.01	06/18/19	O	1	0	< 0.01	< 0 .01					
Cu (TRC) (mg/L)	< 0.002	06/18/19	O	1	0	< 0.002	< 0 .002					
Fe (TRC) (mg/L)	0.44	06/18/19	O	1	1	0.44	0.44	0.44	0.44	0	0.0	H
Pb (TRC) (mg/L)	0.0004	06/18/19	O	1	1	0.0004	0.0004	0.0004	0.0004	0	0.0	H
Mn (TRC) (mg/L)	0.027	06/18/19	O	1	1	0.027	0.027	0.027	0.027	0	0.0	H
Hg (TRC) (ug/L)	< 0.005	06/18/19	O	1	0	< 0.005	< 0 .005					
Mo (TRC) (mg/L)	< 0.002	06/18/19	O	1	0	< 0.002	< 0 .002					
Ni (TRC) (mg/L)	< 0.001	06/18/19	O	1	0	< 0.001	< 0 .001					
Se (TRC) (mg/L)	< 0.0002	06/18/19	O	1	0	< 0.0002	: 0 .0002					
Ag (TRC) (mg/L)	< 0.0002	06/18/19	O	1	0	< 0.0002	: 0 .0002					
Sr (TRC) (mg/L)	0.178	06/18/19	O	1	1	0.178	0.178	0.178	0.178	0	0.0	H
Tl (TRC) (mg/L)	< 0.0002	06/18/19	O	1	0	< 0.0002	: 0 .0002					
U (TRC) (mg/L)	0.0009	06/18/19	O	1	1	0.0009	0.0009	0.0009	0.0009	0	0.0	H
Zn (TRC) (mg/L)	0.004	06/18/19	O	1	1	0.004	0.004	0.004	0.004	0	0.0	H

SAMPLE NO BBC-1906-110 LAB NO: H19060536-003 STATION:SW-2

06/19/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	9.96	05/24/11-06/19/19	O	79	79	6.35	16.18	10.98	10.9	1.75	0.58	
pH Fld (s.u.)	8.3	05/24/11-06/19/19	O	78	78	0.0	8.7	6.8	8	1	1.5	
SC Fld (umhos/cm)	280	05/24/11-06/19/19	O	79	79	156.0	388.0	275.7	300	54.2	0.1	
Flow (Cubic Ft Sec)	71.76	05/24/11-06/19/19	O	51	51	0.0	250.0	10.95	20.27	50.74	1.2	
Gauge (Feet)	1.05	05/24/11-06/19/19	O	41	41	0.21	1.75	0.66	0.65	0.46	0.84	
Water Temp (Deg C)	7.3	05/24/11-06/19/19	O	79	79	-1.0	15.8	0.3	3.3	4.9	1.4	
TDS (mg/L)	183	05/24/11-06/19/19	O	72	72	112.0	223.0	164.7	173	25.3	0.7	
TSS (mg/L)	8	05/30/12-06/19/19	O	68	20	< 4	105.0					
Tot Alk (mg/L)	140	05/24/11-06/19/19	O	72	72	80.0	200.0	149.8	160	28.3	0.3	
Ca (mg/L)	41	05/30/19-06/19/19	O	2	2	28.0	41.0	33.9	34.5	9.2	0.8	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Chloride (mg/L)	1	05/24/11-06/19/19	O	72	70	1.0	5.0	1.3	1	0.7	0.5	L
F (mg/L)	< 0.1	05/24/11-06/19/19	O	72	1	< 0.1	0.4					
Tot Hard (mg/L)	143	05/24/11-06/19/19	O	72	71	< 7	202.0	143.4	162	34.1	0.0	
Mg (mg/L)	10	05/30/19-06/19/19	O	2	2	7.0	10.0	8.4	8.5	2.1	0.8	H
K (mg/L)	1	05/30/19-06/19/19	O	2	1	1.0	1.0					
Na (mg/L)	2	05/30/19-06/19/19	O	2	2	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	5	05/24/11-06/19/19	O	72	72	2.0	9.0	4.9	5	1.5	0.0	
Nitrate + (mg/L)	< 0.01	05/24/11-06/19/19	O	72	34	< 0.01	0.12					
P (mg/L)	0.013	05/30/19-06/19/19	O	2	2	0.013	0.017	0.015	0.015	0.003	0.622	L
Total Pers (mg/L)	0.12	04/29/15-06/19/19	O	46	40	< 0	1.39	0.1	0.1	0.27	0.06	
Al (DIS) (mg/L)	0.012	05/30/19-06/19/19	O	2	2	0.012	0.051	0.025	0.032	0.028	0.455	L
Sb (TRC) (mg/L)	< 0.0005	05/30/19-06/19/19	O	2	0	< 0.0005	: 0 .0005					
As (TRC) (mg/L)	< 0.001	05/30/19-06/19/19	O	2	0	< 0.001	< 0 .001					
Ba (TRC) (mg/L)	0.078	05/30/19-06/19/19	O	2	2	0.073	0.078	0.075	0.076	0.004	0.635	H
Be (TRC) (mg/L)	< 0.0008	05/30/19-06/19/19	O	2	0	< 0.0008	: 0 .0008					
Cd (TRC) (mg/L)	< 0	05/30/19-06/19/19	O	2	0	< 0	: .00003					
Cr (TRC) (mg/L)	< 0.01	05/30/19-06/19/19	O	2	0	< 0.01	< 0 .01					
Co (TRC) (mg/L)	< 0.01	05/30/19-06/19/19	O	2	0	< 0.01	< 0 .01					
Cu (TRC) (mg/L)	< 0.002	05/30/19-06/19/19	O	2	0	< 0.002	< 0 .002					
Fe (TRC) (mg/L)	0.23	05/30/19-06/19/19	O	2	2	0.23	0.55	0.36	0.39	0.23	0.55	L
Pb (TRC) (mg/L)	< 0.0003	05/30/19-06/19/19	O	2	0	< 0.0003	: 0 .0003					
Mn (TRC) (mg/L)	0.011	05/30/19-06/19/19	O	2	2	0.011	0.012	0.011	0.012	0.001	0.489	L
Hg (TRC) (ug/L)	< 0.005	05/30/19-06/19/19	O	2	1	< 0.005	0.01					
Mo (TRC) (mg/L)	< 0.002	05/30/19-06/19/19	O	2	0	< 0.002	< 0 .002					
Ni (TRC) (mg/L)	< 0.001	05/30/19-06/19/19	O	2	1	< 0.001	< 0 .001					
Se (TRC) (mg/L)	< 0.0002	05/30/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
Ag (TRC) (mg/L)	< 0.0002	05/30/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
Sr (TRC) (mg/L)	0.126	05/30/19-06/19/19	O	2	2	0.095	0.126	0.109	0.111	0.022	0.765	H
Tl (TRC) (mg/L)	< 0.0002	05/30/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
U (TRC) (mg/L)	0.0003	05/30/19-06/19/19	O	2	2	0.0002	0.0003	0.0002	0.0003	0.0001	0.5505	H
Zn (TRC) (mg/L)	0.002	05/30/19-06/19/19	O	2	2	0.002	0.004	0.003	0.003	0.001	0.828	L

SAMPLE NO BBC-1906-123 LAB NO: H19060536-006

STATION:SW-3

PARAMETER	06/19/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

DO (mg/L)	9.28	05/24/11-06/19/19	O	33	33	5.95	12.87	9.88	10	1.46	0.41	
pH Fld (s.u.)	8.46	05/24/11-06/19/19	O	33	33	7.92	8.7	8.28	8.31	0.16	1.12	
SC Fld (umhos/cm)	379	05/24/11-06/19/19	O	33	33	269.0	423.0	374.1	383	36.4	0.1	
Flow (Cubic Ft Sec)	0.089	05/24/11-06/19/19	O	29	29	0.034	4.9	0.168	0.14	0.887	0.089	
Water Temp (Deg C)	11	05/24/11-06/19/19	O	33	33	0.0	14.5	3.4	9.2	4.6	1.7	
TDS (mg/L)	247	05/24/11-06/19/19	O	31	31	152.0	255.0	217.2	221	19.3	1.5	
TSS (mg/L)	5	05/30/12-06/19/19	O	28	11	< 4	14.0					
Tot Alk (mg/L)	180	05/24/11-06/19/19	O	31	31	150.0	210.0	195.7	200	13.3	1.2	
Ca (mg/L)	44	05/30/19-06/19/19	O	2	2	44.0	44.0	44.0	44	0	0.0	H
Chloride (mg/L)	2	05/24/11-06/19/19	O	31	29	1.0	3.0	1.5	1.9	0.5	1.0	
F (mg/L)	0.2	05/24/11-06/19/19	O	31	31	0.1	0.2	0.2	0.2	0	0.0	H
Tot Hard (mg/L)	198	05/24/11-06/19/19	O	31	31	139.0	234.0	206.0	213	19.3	0.4	
Mg (mg/L)	21	05/30/19-06/19/19	O	2	2	21.0	21.0	21.0	21	0	0.0	H
K (mg/L)	< 1	05/30/19-06/19/19	O	2	0	< 1	< 1					
Na (mg/L)	2	05/30/19-06/19/19	O	2	2	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	17	05/24/11-06/19/19	O	31	31	5.0	26.0	15.6	17	4.8	0.3	
Nitrate + (mg/L)	< 0.01	05/24/11-06/19/19	O	31	25	< 0.01	0.12	0.04	0.05	0.03	0.88	L
P (mg/L)	0.009	05/30/19-06/19/19	O	2	2	0.006	0.009	0.007	0.008	0.002	0.826	H
Total Pers (mg/L)	0.1	06/24/15-06/19/19	O	18	17	< 0	0.6	0.1	0.1	0.1	0.3	
Al (DIS) (mg/L)	< 0.009	05/30/19-06/19/19	O	2	0	< 0.009	< 0 .009					
Sb (TRC) (mg/L)	< 0.0005	05/30/19-06/19/19	O	2	0	< 0.0005	: 0 .0005					
As (TRC) (mg/L)	< 0.001	05/30/19-06/19/19	O	2	0	< 0.001	< 0 .001					
Ba (TRC) (mg/L)	0.146	05/30/19-06/19/19	O	2	2	0.133	0.146	0.139	0.14	0.009	0.739	H
Be (TRC) (mg/L)	< 0.0008	05/30/19-06/19/19	O	2	0	< 0.0008	: 0 .0008					
Cd (TRC) (mg/L)	< 0	05/30/19-06/19/19	O	2	0	< 0	: .00003					
Cr (TRC) (mg/L)	< 0.01	05/30/19-06/19/19	O	2	0	< 0.01	< 0 .01					
Co (TRC) (mg/L)	< 0.01	05/30/19-06/19/19	O	2	0	< 0.01	< 0 .01					
Cu (TRC) (mg/L)	< 0.002	05/30/19-06/19/19	O	2	0	< 0.002	< 0 .002					
Fe (TRC) (mg/L)	0.07	05/30/19-06/19/19	O	2	2	0.03	0.07	0.05	0.05	0.03	0.81	H
Pb (TRC) (mg/L)	< 0.0003	05/30/19-06/19/19	O	2	0	< 0.0003	: 0 .0003					
Mn (TRC) (mg/L)	< 0.005	05/30/19-06/19/19	O	2	0	< 0.005	< 0 .005					
Hg (TRC) (ug/L)	< 0.005	05/30/19-06/19/19	O	2	0	< 0.005	< 0 .005					
Mo (TRC) (mg/L)	< 0.002	05/30/19-06/19/19	O	2	0	< 0.002	< 0 .002					
Ni (TRC) (mg/L)	< 0.001	05/30/19-06/19/19	O	2	0	< 0.001	< 0 .001					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Se (TRC) (mg/L)	< 0.0002	05/30/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
Ag (TRC) (mg/L)	< 0.0002	05/30/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
Sr (TRC) (mg/L)	0.11	05/30/19-06/19/19	O	2	2	0.1	0.11	0.1	0.11	0.01	0.51	H
Tl (TRC) (mg/L)	< 0.0002	05/30/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
U (TRC) (mg/L)	0.0006	05/30/19-06/19/19	O	2	2	0.0006	0.0006	0.0006	0.0006	0	0.0	H
Zn (TRC) (mg/L)	0.002	05/30/19-06/19/19	O	2	1	0.002	0.002					

SAMPLE NO BBC-1906-129 LAB NO: H19060536-009

STATION:SW-6

06/20/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	8.89	05/25/11-06/20/19	O	30	30	5.82	14.18	9.7	9.93	1.81	0.45	
pH Fld (s.u.)	8.05	05/25/11-06/20/19	O	30	30	6.67	8.68	8.0	8.1	0.45	0.11	
SC Fld (umhos/cm)	379	05/25/11-06/20/19	O	30	30	249.0	433.0	387.8	396	35.2	0.3	
Flow (Cubic Ft Sec)	0.63	05/25/11-06/20/19	O	24	24	0.04	4.1	0.2	0.18	0.82	0.53	
Water Temp (Deg C)	7.5	05/25/11-06/20/19	O	30	30	0.0	18.3	2.1	6.7	5.7	1.0	
TDS (mg/L)	246	05/25/11-06/20/19	O	30	30	162.0	254.0	222.7	225	18.5	1.3	
TSS (mg/L)	13	05/30/12-06/20/19	O	26	20	4.0	107.0	12.7	10	28.1	0.0	
Tot Alk (mg/L)	190	05/25/11-06/20/19	O	30	30	140.0	240.0	210.0	215	19.2	1.0	
Ca (mg/L)	49	06/20/19	O	1	1	49.0	49.0	49.0	49	0	0.0	H
Chloride (mg/L)	< 1	05/25/11-06/20/19	O	30	7	1.0	2.0					
F (mg/L)	0.1	05/25/11-06/20/19	O	30	28	0.1	0.2	0.2	0.2	0	0.0	L
Tot Hard (mg/L)	205	05/25/11-06/20/19	O	30	30	119.0	239.0	210.8	216.5	23.6	0.2	
Mg (mg/L)	20	06/20/19	O	1	1	20.0	20.0	20.0	20	0	0.0	H
K (mg/L)	< 1	06/20/19	O	1	0	< 1	< 1					
Na (mg/L)	3	06/20/19	O	1	1	3.0	3.0	3.0	3	0	0.0	H
SO4 (mg/L)	10	05/25/11-06/20/19	O	30	30	6.0	34.0	11.1	11	5.3	0.2	
Nitrate + (mg/L)	0.03	05/25/11-06/20/19	O	30	27	< 0.01	0.11	0.04	0.05	0.03	0.4	
P (mg/L)	0.018	06/20/19	O	1	1	0.018	0.018	0.018	0.018	0	0.0	H
Total Pers (mg/L)	0.2	06/24/15-06/20/19	O	14	14	0.1	0.4	0.2	0.2	0.1	0.2	
Al (DIS) (mg/L)	< 0.009	06/20/19	O	1	0	< 0.009	< 0 .009					
Sb (TRC) (mg/L)	< 0.0005	06/20/19	O	1	0	< 0.0005	: 0 .0005					
As (TRC) (mg/L)	< 0.001	06/20/19	O	1	0	< 0.001	< 0 .001					
Ba (TRC) (mg/L)	0.11	06/20/19	O	1	1	0.11	0.11	0.11	0.11	0	0.0	H
Be (TRC) (mg/L)	< 0.0008	06/20/19	O	1	0	< 0.0008	: 0 .0008					
Cd (TRC) (mg/L)	< 0	06/20/19	O	1	0	< 0	: .00003					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Cr (TRC) (mg/L)	< 0.01	06/20/19	O	1	0	< 0.01	< 0 .01					
Co (TRC) (mg/L)	< 0.01	06/20/19	O	1	0	< 0.01	< 0 .01					
Cu (TRC) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					
Fe (TRC) (mg/L)	0.64	06/20/19	O	1	1	0.64	0.64	0.64	0.64	0	0.0	H
Pb (TRC) (mg/L)	0.0003	06/20/19	O	1	1	0.0003	0.0003	0.0003	0.0003	0	0.0	H
Mn (TRC) (mg/L)	0.043	06/20/19	O	1	1	0.043	0.043	0.043	0.043	0	0.0	H
Hg (TRC) (ug/L)	< 0.005	06/20/19	O	1	0	< 0.005	< 0 .005					
Mo (TRC) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					
Ni (TRC) (mg/L)	< 0.001	06/20/19	O	1	0	< 0.001	< 0 .001					
Se (TRC) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
Ag (TRC) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
Sr (TRC) (mg/L)	0.154	06/20/19	O	1	1	0.154	0.154	0.154	0.154	0	0.0	H
Tl (TRC) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
U (TRC) (mg/L)	0.0006	06/20/19	O	1	1	0.0006	0.0006	0.0006	0.0006	0	0.0	H
Zn (TRC) (mg/L)	0.006	06/20/19	O	1	1	0.006	0.006	0.006	0.006	0	0.0	H

SAMPLE NO BBC-1906-133 LAB NO: H19060535-012

STATION:SW-7

06/20/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	8.03	05/24/11-06/20/19	O	23	23	2.82	11.31	8.17	8.15	1.64	0.09	
pH Fld (s.u.)	7.76	05/24/11-06/20/19	O	23	23	6.22	7.99	7.65	7.75	0.35	0.32	
SC Fld (umhos/cm)	406	05/24/11-06/20/19	O	23	23	359.0	426.3	403.8	407	14.8	0.1	
Flow (Gallons Per Min)	9.43	05/24/11-06/20/19	O	21	21	0.04	128.36	4.82	8.08	28.55	0.16	
Water Temp (Deg C)	8.4	05/24/11-06/20/19	O	23	23	0.6	13.1	7.1	8.8	3.2	0.4	
TDS (mg/L)	228	11/26/12-06/20/19	O	21	21	201.0	241.0	223.7	225	10.8	0.4	
TSS (mg/L)	< 10	11/26/12-06/20/19	O	21	6	< 10	219.0					
Tot Alk (mg/L)	210	11/26/12-06/20/19	O	21	21	200.0	230.0	216.1	220	7.4	0.8	
Ca (mg/L)	60	05/29/19-06/20/19	O	2	2	55.0	60.0	57.4	57.5	3.5	0.7	H
Chloride (mg/L)	< 1	11/26/12-06/20/19	O	21	1	< 1	2.0					
F (mg/L)	< 0.1	11/26/12-06/20/19	O	21	16	< 0.1	< 0 .1	0.1	0.1	0	0.0	H
Tot Hard (mg/L)	227	11/26/12-06/20/19	O	21	21	193.0	242.0	221.5	222	12.4	0.4	
Mg (mg/L)	19	05/29/19-06/20/19	O	2	2	17.0	19.0	18.0	18	1.4	0.7	H
K (mg/L)	< 1	05/29/19-06/20/19	O	2	0	< 1	< 1					
Na (mg/L)	2	05/29/19-06/20/19	O	2	2	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	10	11/26/12-06/20/19	O	21	21	6.0	11.0	8.8	9.1	1.4	0.8	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Nitrate + (mg/L)	0.06	11/26/12-06/20/19	O	21	18	< 0.01	0.13	0.03	0.04	0.03	0.9	
Al (DIS) (mg/L)	< 0.009	05/29/19-06/20/19	O	2	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	05/29/19-06/20/19	O	2	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	05/29/19-06/20/19	O	2	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.05	05/29/19-06/20/19	O	2	2	0.05	0.05	0.05	0.05	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	05/29/19-06/20/19	O	2	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	05/29/19-06/20/19	O	2	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	05/29/19-06/20/19	O	2	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	05/29/19-06/20/19	O	2	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	05/29/19-06/20/19	O	2	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	05/29/19-06/20/19	O	2	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	05/29/19-06/20/19	O	2	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	05/29/19-06/20/19	O	2	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	05/29/19-06/20/19	O	2	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	05/29/19-06/20/19	O	2	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	05/29/19-06/20/19	O	2	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	05/29/19-06/20/19	O	2	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	05/29/19-06/20/19	O	2	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.132	05/29/19-06/20/19	O	2	2	0.131	0.132	0.131	0.132	0.001	0.501	H
Tl (DIS) (mg/L)	< 0.0002	05/29/19-06/20/19	O	2	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0006	05/29/19-06/20/19	O	2	2	0.0006	0.0006	0.0006	0.0006	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	05/29/19-06/20/19	O	2	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-111 LAB NO: H19060536-004

STATION:USGS-SC1

06/19/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	9.98	03/24/14-06/19/19	O	63	63	7.12	16.55	11.16	11.16	1.62	0.73	
pH Fld (s.u.)	8.35	03/24/14-06/19/19	O	62	62	6.67	8.67	7.98	8.17	0.45	0.82	
SC Fld (umhos/cm)	306	03/24/14-06/19/19	O	63	63	137.0	408.0	321.5	341	50.4	0.3	
Flow (Cubic Ft Sec)	62.28	05/05/14-06/19/19	O	40	40	0.0	111.32	7.89	18.73	29.16	1.87	
Water Temp (Deg C)	6.9	03/24/14-06/19/19	O	63	63	-1.0	13.1	0.4	2.9	4	1.6	
TDS (mg/L)	209	03/24/14-06/19/19	O	60	60	132.0	230.0	187.9	195	21.3	1.0	
TSS (mg/L)	10	03/24/14-06/19/19	O	60	17	< 4	38.0					
Tot Alk (mg/L)	150	03/24/14-06/19/19	O	60	60	120.0	220.0	174.9	180	22.8	1.1	
Ca (mg/L)	45	05/30/19-06/19/19	O	2	2	37.0	45.0	40.8	41	5.7	0.7	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Chloride (mg/L)	1	03/24/14-06/19/19	O	60	60	1.0	5.0	1.4	1	0.8	0.6	L
F (mg/L)	< 0.1	03/24/14-06/19/19	O	60	1	< 0.1	< 0 .1					
Tot Hard (mg/L)	158	03/24/14-06/19/19	O	60	59	< 7	214.0	166.9	185	31.4	0.3	
Mg (mg/L)	11	05/30/19-06/19/19	O	2	2	9.0	11.0	9.9	10	1.4	0.8	H
K (mg/L)	1	05/30/19-06/19/19	O	2	2	1.0	1.0	1.0	1	0	0.0	H
Na (mg/L)	2	05/30/19-06/19/19	O	2	2	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	5	03/24/14-06/19/19	O	60	60	3.0	8.0	5.7	6	1.4	0.5	
Nitrate + (mg/L)	0.01	03/24/14-06/19/19	O	60	41	< 0.01	0.13	0.03	0.03	0.04	0.46	L
P (mg/L)	0.009	05/30/19-06/19/19	O	2	2	0.009	0.018	0.013	0.014	0.006	0.621	L
Total Pers (mg/L)	0.1	04/29/15-06/19/19	O	46	36	< 0	1.1	0.1	0.1	0.2	0.1	
Al (DIS) (mg/L)	< 0.009	05/30/19-06/19/19	O	2	1	< 0.009	0.023					
Sb (TRC) (mg/L)	< 0.0005	05/30/19-06/19/19	O	2	0	< 0.0005	: 0 .0005					
As (TRC) (mg/L)	< 0.001	05/30/19-06/19/19	O	2	0	< 0.001	< 0 .001					
Ba (TRC) (mg/L)	0.068	05/30/19-06/19/19	O	2	2	0.061	0.068	0.064	0.065	0.005	0.719	H
Be (TRC) (mg/L)	< 0.0008	05/30/19-06/19/19	O	2	0	< 0.0008	: 0 .0008					
Cd (TRC) (mg/L)	< 0	05/30/19-06/19/19	O	2	0	< 0	: .00003					
Cr (TRC) (mg/L)	< 0.01	05/30/19-06/19/19	O	2	0	< 0.01	< 0 .01					
Co (TRC) (mg/L)	< 0.01	05/30/19-06/19/19	O	2	0	< 0.01	< 0 .01					
Cu (TRC) (mg/L)	< 0.002	05/30/19-06/19/19	O	2	0	< 0.002	< 0 .002					
Fe (TRC) (mg/L)	0.16	05/30/19-06/19/19	O	2	2	0.16	0.67	0.33	0.42	0.36	0.47	L
Pb (TRC) (mg/L)	< 0.0003	05/30/19-06/19/19	O	2	1	< 0.0003	: 0 .0003					
Mn (TRC) (mg/L)	0.008	05/30/19-06/19/19	O	2	2	0.008	0.013	0.01	0.011	0.004	0.55	L
Hg (TRC) (ug/L)	< 0.005	05/30/19-06/19/19	O	2	1	< 0.005	0.01					
Mo (TRC) (mg/L)	< 0.002	05/30/19-06/19/19	O	2	0	< 0.002	< 0 .002					
Ni (TRC) (mg/L)	< 0.001	05/30/19-06/19/19	O	2	1	< 0.001	0.002					
Se (TRC) (mg/L)	< 0.0002	05/30/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
Ag (TRC) (mg/L)	< 0.0002	05/30/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
Sr (TRC) (mg/L)	0.141	05/30/19-06/19/19	O	2	2	0.119	0.141	0.13	0.13	0.016	0.717	H
Tl (TRC) (mg/L)	< 0.0002	05/30/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
U (TRC) (mg/L)	0.0003	05/30/19-06/19/19	O	2	2	0.0003	0.0003	0.0003	0.0003	0	0.0	H
Zn (TRC) (mg/L)	0.002	05/30/19-06/19/19	O	2	2	0.002	0.002	0.002	0.002	0	0.0	H

SAMPLE NO BBC-1906-227 LAB NO: H19060562-007

STATION:MW-10

06/20/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Depth to W (Feet)	66.23	03/29/16-06/20/19	O	13	13	64.92	82.88	74.36	76.92	5.97	1.36	
DO (mg/L)	7.65	03/29/16-06/20/19	O	13	13	4.96	9.77	7.2	7.52	1.5	0.3	
EH (Millivolts)	272	03/21/18-06/20/19	O	5	5	253.7	297.4	278.2	276.3	17.7	0.3	
pH Fld (s.u.)	8.04	03/29/16-06/20/19	O	13	13	7.56	8.04	7.84	7.87	0.17	1.15	H
SC Fld (umhos/cm)	351	03/29/16-06/20/19	O	13	13	314.0	364.0	335.9	338	14.3	1.1	
Water Temp (Deg C)	6.5	03/29/16-06/20/19	O	13	13	5.9	9.7	7.7	7.9	1.1	1.1	
TDS (mg/L)	188	03/29/16-06/20/19	O	13	13	174.0	244.0	194.4	190	17.3	0.4	
TSS (mg/L)	< 10	03/29/16-06/20/19	O	13	11	< 10	2830.0	91.3	130	759.7	0.1	L
Tot Alk (mg/L)	180	03/29/16-06/20/19	O	13	13	170.0	210.0	179.8	180	10	0.0	
Ca (mg/L)	44	06/20/19	O	1	1	44.0	44.0	44.0	44	0	0.0	H
Chloride (mg/L)	< 1	03/29/16-06/20/19	O	13	3	< 1	4.0					
F (mg/L)	0.2	03/29/16-06/20/19	O	13	13	0.2	0.5	0.3	0.3	0.1	0.9	L
Tot Hard (mg/L)	184	03/29/16-06/20/19	O	13	13	156.0	185.0	170.1	167	10.6	1.3	
Mg (mg/L)	18	06/20/19	O	1	1	18.0	18.0	18.0	18	0	0.0	H
K (mg/L)	2	06/20/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
Na (mg/L)	6	06/20/19	O	1	1	6.0	6.0	6.0	6	0	0.0	H
SO4 (mg/L)	4	03/29/16-06/20/19	O	13	13	3.0	8.0	4.7	4.7	1.5	0.5	
Nitrate + (mg/L)	0.6	03/29/16-06/20/19	O	13	13	0.5	0.6	0.5	0.5	0	0.0	
Al (DIS) (mg/L)	0.027	06/20/19	O	1	1	0.027	0.027	0.027	0.027	0	0.0	H
Sb (DIS) (mg/L)	< 0.0005	06/20/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	06/20/19	O	1	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.211	06/20/19	O	1	1	0.211	0.211	0.211	0.211	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/20/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/20/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/20/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/20/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	0.02	06/20/19	O	1	1	0.02	0.02	0.02	0.02	0	0.0	H
Pb (DIS) (mg/L)	< 0.0003	06/20/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	06/20/19	O	1	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	06/20/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	0.004	06/20/19	O	1	1	0.004	0.004	0.004	0.004	0	0.0	H
Ni (DIS) (mg/L)	< 0.001	06/20/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Ag (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.893	06/20/19	O	1	1	0.893	0.893	0.893	0.893	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0051	06/20/19	O	1	1	0.0051	0.0051	0.0051	0.0051	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-228 LAB NO: H19060562-008 STATION:MW-11

06/21/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	25.75	03/29/16-06/21/19	O	13	13	23.38	37.08	31.44	33.41	4.23	1.34	
DO (mg/L)	9.57	03/29/16-06/21/19	O	13	13	5.09	9.57	7.4	7.86	1.32	1.64	H
EH (Millivolts)	281.21	03/20/18-06/21/19	O	5	5	255.64	293.82	274.68	280.32	15.13	0.43	
pH Fld (s.u.)	7.72	03/29/16-06/21/19	O	13	13	7.4	7.73	7.65	7.7	0.11	0.68	
SC Fld (umhos/cm)	296	03/29/16-06/21/19	O	13	13	295.0	393.0	319.6	309	27	0.9	
Water Temp (Deg C)	7.6	03/29/16-06/21/19	O	13	13	6.7	8.1	7.6	7.6	0.5	0.0	
TDS (mg/L)	160	03/29/16-06/21/19	O	13	13	160.0	238.0	183.0	180	18.1	1.3	L
TSS (mg/L)	25	03/29/16-06/21/19	O	13	12	< 10	501.0	61.5	58	166.2	0.2	
Tot Alk (mg/L)	150	03/29/16-06/21/19	O	13	13	150.0	180.0	165.2	160	8.8	1.7	L
Ca (mg/L)	43	06/21/19	O	1	1	43.0	43.0	43.0	43	0	0.0	H
Chloride (mg/L)	< 1	03/29/16-06/21/19	O	13	1	< 1	2.0					
F (mg/L)	< 0.1	03/29/16-06/21/19	O	13	8	< 0.1	< 0 .1	0.1	0.1	0	0.0	H
Tot Hard (mg/L)	151	03/29/16-06/21/19	O	13	13	148.0	163.0	156.8	159	5.5	1.1	
Mg (mg/L)	11	06/21/19	O	1	1	11.0	11.0	11.0	11	0	0.0	H
K (mg/L)	2	06/21/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
Na (mg/L)	4	06/21/19	O	1	1	4.0	4.0	4.0	4	0	0.0	H
SO4 (mg/L)	5	03/29/16-06/21/19	O	13	13	4.0	31.0	6.6	5	7.3	0.2	
Nitrate + (mg/L)	0.47	03/29/16-06/21/19	O	13	13	0.37	0.53	0.44	0.45	0.05	0.56	
Al (DIS) (mg/L)	< 0.009	06/21/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	06/21/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	06/21/19	O	1	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.149	06/21/19	O	1	1	0.149	0.149	0.149	0.149	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/21/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/21/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/21/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/21/19	O	1	0	< 0.01	< 0 .01					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Cu (DIS) (mg/L)	< 0.002	06/21/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	06/21/19	O	1	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	06/21/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	06/21/19	O	1	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	06/21/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	06/21/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	06/21/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	06/21/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	06/21/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.322	06/21/19	O	1	1	0.322	0.322	0.322	0.322	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	06/21/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0015	06/21/19	O	1	1	0.0015	0.0015	0.0015	0.0015	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	06/21/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-229 LAB NO: H19060562-009 STATION:MW-12

06/21/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	22.54	03/29/16-06/21/19	O	13	13	21.19	31.17	26.37	27.44	3.2	1.2	
DO (mg/L)	9.35	03/29/16-06/21/19	O	13	13	6.27	9.88	8.36	8.43	1.19	0.83	
EH (Millivolts)	283.58	03/20/18-06/21/19	O	5	5	265.01	304.8	288.6	288.61	16.17	0.31	
pH Fld (s.u.)	7.6	03/29/16-06/21/19	O	13	13	7.2	7.6	7.5	7.6	0.1	1.0	
SC Fld (umhos/cm)	342	03/29/16-06/21/19	O	13	13	342.0	437.0	404.5	409	24.5	2.6	L
Water Temp (Deg C)	6	03/29/16-06/21/19	O	13	13	5.4	7.0	6.3	6.4	0.4	0.8	
TDS (mg/L)	210	03/29/16-06/21/19	O	13	13	210.0	233.0	222.3	223	6.5	1.9	L
TSS (mg/L)	< 10	03/29/16-06/21/19	O	13	2	< 4	26.0					
Tot Alk (mg/L)	200	03/29/16-06/21/19	O	13	13	200.0	220.0	211.4	210	6.9	1.7	L
Ca (mg/L)	58	06/21/19	O	1	1	58.0	58.0	58.0	58	0	0.0	H
Chloride (mg/L)	< 1	03/29/16-06/21/19	O	13	0	< 1	< 1					
F (mg/L)	0.1	03/29/16-06/21/19	O	13	13	0.1	0.1	0.1	0.1	0	0.0	H
Tot Hard (mg/L)	223	03/29/16-06/21/19	O	13	13	212.0	239.0	225.0	223	6.7	0.3	
Mg (mg/L)	19	06/21/19	O	1	1	19.0	19.0	19.0	19	0	0.0	H
K (mg/L)	< 1	06/21/19	O	1	0	< 1	< 1					
Na (mg/L)	2	06/21/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	11	03/29/16-06/21/19	O	13	13	10.0	13.0	11.5	12	1	0.5	
Nitrate + (mg/L)	0.13	03/29/16-06/21/19	O	13	13	0.13	0.19	0.16	0.16	0.02	1.61	L

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Al (DIS) (mg/L)	< 0.009	06/21/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	06/21/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	06/21/19	O	1	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.051	06/21/19	O	1	1	0.051	0.051	0.051	0.051	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/21/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/21/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/21/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/21/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	06/21/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	06/21/19	O	1	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	06/21/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	06/21/19	O	1	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	06/21/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	06/21/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	06/21/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	06/21/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	06/21/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.136	06/21/19	O	1	1	0.136	0.136	0.136	0.136	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	06/21/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0007	06/21/19	O	1	1	0.0007	0.0007	0.0007	0.0007	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	06/21/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-230 LAB NO: H19060562-010 STATION:MW-13

06/21/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	17.54	03/29/16-06/21/19	O	13	13	16.68	22.5	20.32	21.16	1.92	1.45	
DO (mg/L)	8.97	03/29/16-06/21/19	O	13	13	6.32	9.05	7.58	7.64	0.93	1.5	
EH (Millivolts)	280.61	03/20/18-06/21/19	O	5	5	272.88	302.18	288.69	289.71	12.32	0.66	
pH Fld (s.u.)	7.6	03/29/16-06/21/19	O	13	13	6.3	7.7	7.4	7.6	0.4	0.6	
SC Fld (umhos/cm)	388	03/29/16-06/21/19	O	13	13	388.0	458.7	423.4	424	21.8	1.6	L
Water Temp (Deg C)	5.8	03/29/16-06/21/19	O	13	13	5.8	7.0	6.4	6.4	0.4	1.4	L
TDS (mg/L)	221	03/29/16-06/21/19	O	13	13	221.0	248.0	232.5	231	7.5	1.5	L
TSS (mg/L)	< 10	03/29/16-06/21/19	O	13	9	< 10	319.0	22.6	14	88.6	0.1	L
Tot Alk (mg/L)	210	03/29/16-06/21/19	O	13	13	210.0	220.0	216.1	220	5.1	1.2	L
Ca (mg/L)	57	06/21/19	O	1	1	57.0	57.0	57.0	57	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Chloride (mg/L)	< 1	03/29/16-06/21/19	O	13	1	< 1	< 1					
F (mg/L)	0.1	03/29/16-06/21/19	O	13	12	0.1	0.1	0.1	0.1	0	0.0	H
Tot Hard (mg/L)	222	03/29/16-06/21/19	O	13	13	222.0	245.0	235.0	236	6.9	1.9	L
Mg (mg/L)	20	06/21/19	O	1	1	20.0	20.0	20.0	20	0	0.0	H
K (mg/L)	< 1	06/21/19	O	1	0	< 1	< 1					
Na (mg/L)	2	06/21/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	14	03/29/16-06/21/19	O	13	13	12.0	18.0	15.3	16	1.6	0.8	
Nitrate + (mg/L)	0.15	03/29/16-06/21/19	O	13	13	0.15	0.27	0.19	0.19	0.03	1.47	L
Al (DIS) (mg/L)	< 0.009	06/21/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	06/21/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	06/21/19	O	1	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.054	06/21/19	O	1	1	0.054	0.054	0.054	0.054	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/21/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/21/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/21/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/21/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	06/21/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	06/21/19	O	1	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	06/21/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	06/21/19	O	1	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	06/21/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	06/21/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	06/21/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	06/21/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	06/21/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.0976	06/21/19	O	1	1	0.0976	0.0976	0.0976	0.0976	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	06/21/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0005	06/21/19	O	1	1	0.0005	0.0005	0.0005	0.0005	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	06/21/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-126 LAB NO: H19060536-007

STATION:SW-14

06/19/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	8.22	04/13/16-06/19/19	O	36	36	7.59	15.01	10.61	10.42	1.68	1.42	
pH Fld (s.u.)	7.99	04/13/16-06/19/19	O	35	35	6.07	8.48	7.93	8.05	0.46	0.14	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

SC Fld (umhos/cm)	392	04/13/16-06/19/19	O	36	36	263.0	439.0	379.6	393	42.4	0.3	
Flow (Cubic Ft Sec)	6.53	02/25/16-06/19/19	O	33	33	0.0	11.75	0.51	1.09	3.16	1.91	
Gauge (Feet)	0.8	04/13/16-06/19/19	O	19	19	0.3	0.8	0.5	0.5	0.1	3.2	*H
Water Temp (Deg C)	11.7	04/13/16-06/19/19	O	36	36	-0.9	14.7	2.5	7.1	4.6	2.0	
TDS (mg/L)	266	04/13/16-06/19/19	O	33	33	175.0	266.0	224.7	227	16.9	2.4	H
TSS (mg/L)	5	04/13/16-06/19/19	O	33	5	< 4	15.0					
Tot Alk (mg/L)	190	04/13/16-06/19/19	O	33	33	160.0	220.0	204.9	210	17.9	0.8	
Ca (mg/L)	53	05/30/19-06/19/19	O	2	2	53.0	53.0	53.0	53	0	0.0	H
Chloride (mg/L)	4	04/13/16-06/19/19	O	33	33	1.0	4.0	2.0	2	0.6	3.4	*H
F (mg/L)	0.1	04/13/16-06/19/19	O	33	33	0.1	0.2	0.2	0.2	0	0.0	L
Tot Hard (mg/L)	203	04/13/16-06/19/19	O	33	33	153.0	239.0	211.4	214	18.6	0.4	
Mg (mg/L)	17	05/30/19-06/19/19	O	2	2	17.0	19.0	18.0	18	1.4	0.7	L
K (mg/L)	1	05/30/19-06/19/19	O	2	2	1.0	1.0	1.0	1	0	0.0	H
Na (mg/L)	2	05/30/19-06/19/19	O	2	2	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	8	04/13/16-06/19/19	O	33	33	6.5	19.0	9.2	9	2.8	0.4	
Nitrate + (mg/L)	0.05	04/13/16-06/19/19	O	33	32	0.01	0.27	0.07	0.08	0.08	0.2	
P (mg/L)	0.011	05/30/19-06/19/19	O	2	2	0.008	0.011	0.009	0.01	0.002	0.81	H
Total Pers (mg/L)	0.2	04/13/16-06/19/19	O	30	29	< 0	1.3	0.2	0.2	0.2	0.1	
Al (DIS) (mg/L)	< 0.009	05/30/19-06/19/19	O	2	0	< 0.009	< 0 .009					
Sb (TRC) (mg/L)	< 0.0005	05/30/19-06/19/19	O	2	0	< 0.0005	: 0 .0005					
As (TRC) (mg/L)	< 0.001	05/30/19-06/19/19	O	2	0	< 0.001	< 0 .001					
Ba (TRC) (mg/L)	0.112	05/30/19-06/19/19	O	2	2	0.103	0.112	0.107	0.108	0.006	0.766	H
Be (TRC) (mg/L)	< 0.0008	05/30/19-06/19/19	O	2	0	< 0.0008	: 0 .0008					
Cd (TRC) (mg/L)	< 0	05/30/19-06/19/19	O	2	0	< 0	: .00003					
Cr (TRC) (mg/L)	< 0.01	05/30/19-06/19/19	O	2	0	< 0.01	< 0 .01					
Co (TRC) (mg/L)	< 0.01	05/30/19-06/19/19	O	2	0	< 0.01	< 0 .01					
Cu (TRC) (mg/L)	< 0.002	05/30/19-06/19/19	O	2	0	< 0.002	< 0 .002					
Fe (TRC) (mg/L)	0.11	05/30/19-06/19/19	O	2	2	0.06	0.11	0.08	0.09	0.04	0.72	H
Pb (TRC) (mg/L)	< 0.0003	05/30/19-06/19/19	O	2	0	< 0.0003	: 0 .0003					
Mn (TRC) (mg/L)	0.007	05/30/19-06/19/19	O	2	2	0.005	0.007	0.006	0.006	0.001	1.084	H
Hg (TRC) (ug/L)	< 0.005	05/30/19-06/19/19	O	2	1	< 0.005	< 0 .005					
Mo (TRC) (mg/L)	< 0.002	05/30/19-06/19/19	O	2	0	< 0.002	< 0 .002					
Ni (TRC) (mg/L)	< 0.001	05/30/19-06/19/19	O	2	0	< 0.001	< 0 .001					
Se (TRC) (mg/L)	< 0.0002	05/30/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Ag (TRC) (mg/L)	< 0.0002	05/30/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
Sr (TRC) (mg/L)	0.127	05/30/19-06/19/19	O	2	2	0.115	0.127	0.121	0.121	0.008	0.769	H
Tl (TRC) (mg/L)	< 0.0002	05/30/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
U (TRC) (mg/L)	0.0005	05/30/19-06/19/19	O	2	2	0.0005	0.0005	0.0005	0.0005	0	0.0	H
Zn (TRC) (mg/L)	< 0.002	05/30/19-06/19/19	O	2	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-122 LAB NO: H19060536-005 STATION:SW-17

PARAMETER	06/19/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	8.46	01/17/18-06/19/19	O	14	14	8.46	12.9	10.46	10.67	1.07	1.87	L
pH Fld (s.u.)	8.14	01/17/18-06/19/19	O	14	14	7.47	8.41	8.07	8.09	0.24	0.31	
SC Fld (umhos/cm)	458	01/17/18-06/19/19	O	14	14	319.0	487.0	425.7	436.5	43.5	0.7	
Flow (Cubic Ft Sec)	0.75	01/17/18-06/19/19	O	10	10	0.0	1.8	0.07	0.22	0.62	1.09	
Water Temp (Deg C)	13.9	01/17/18-06/19/19	O	14	14	0.0	13.9	2.0	6.2	5.2	2.3	H
TDS (mg/L)	314	01/17/18-06/19/19	O	15	15	197.0	314.0	252.7	254	31.7	1.9	H
TSS (mg/L)	6	01/17/18-06/19/19	O	15	6	< 4	14.0					
Tot Alk (mg/L)	190	01/17/18-06/19/19	O	15	15	150.0	210.0	199.8	210	17.9	0.5	
Ca (mg/L)	56	05/30/19-06/19/19	O	2	2	45.0	56.0	50.2	50.5	7.8	0.7	H
Chloride (mg/L)	14	01/17/18-06/19/19	O	15	15	3.0	14.0	4.4	4	2.7	3.5	*H
F (mg/L)	0.2	01/17/18-06/19/19	O	15	15	0.1	0.2	0.2	0.2	0	0.0	H
Tot Hard (mg/L)	234	01/17/18-06/19/19	O	15	15	167.0	262.0	230.8	240	24	0.1	
Mg (mg/L)	23	05/30/19-06/19/19	O	2	2	20.0	23.0	21.4	21.5	2.1	0.7	H
K (mg/L)	1	05/30/19-06/19/19	O	2	1	1.0	1.0					
Na (mg/L)	3	05/30/19-06/19/19	O	2	2	2.0	3.0	2.4	2.5	0.7	0.8	H
SO4 (mg/L)	23	01/17/18-06/19/19	O	15	15	12.0	44.0	27.4	33	8.5	0.5	
Nitrate + (mg/L)	0.03	01/17/18-06/19/19	O	15	14	< 0.01	0.19	0.07	0.07	0.06	0.62	
P (mg/L)	0.025	05/30/19-06/19/19	O	2	2	0.01	0.025	0.016	0.018	0.011	0.835	H
Total Pers (mg/L)	0.49	04/12/18-06/19/19	O	12	12	0.12	0.49	0.23	0.23	0.1	2.61	H
Al (DIS) (mg/L)	< 0.009	05/30/19-06/19/19	O	2	0	< 0.009	< 0 .009					
Sb (TRC) (mg/L)	< 0.0005	05/30/19-06/19/19	O	2	0	< 0.0005	: 0 .0005					
As (TRC) (mg/L)	< 0.001	05/30/19-06/19/19	O	2	0	< 0.001	< 0 .001					
Ba (TRC) (mg/L)	0.152	05/30/19-06/19/19	O	2	2	0.122	0.152	0.136	0.137	0.021	0.754	H
Be (TRC) (mg/L)	< 0.0008	05/30/19-06/19/19	O	2	0	< 0.0008	: 0 .0008					
Cd (TRC) (mg/L)	< 0	05/30/19-06/19/19	O	2	0	< 0	: .00003					
Cr (TRC) (mg/L)	< 0.01	05/30/19-06/19/19	O	2	0	< 0.01	< 0 .01					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Co (TRC) (mg/L)	< 0.01	05/30/19-06/19/19	O	2	0	< 0.01	< 0 .01					
Cu (TRC) (mg/L)	< 0.002	05/30/19-06/19/19	O	2	0	< 0.002	< 0 .002					
Fe (TRC) (mg/L)	0.31	05/30/19-06/19/19	O	2	2	0.16	0.31	0.22	0.24	0.11	0.79	H
Pb (TRC) (mg/L)	< 0.0003	05/30/19-06/19/19	O	2	0	< 0.0003	: 0 .0003					
Mn (TRC) (mg/L)	0.032	05/30/19-06/19/19	O	2	2	0.016	0.032	0.023	0.024	0.011	0.852	H
Hg (TRC) (ug/L)	0.007	05/30/19-06/19/19	O	2	2	0.007	0.007	0.007	0.007	0	0.0	H
Mo (TRC) (mg/L)	< 0.002	05/30/19-06/19/19	O	2	0	< 0.002	< 0 .002					
Ni (TRC) (mg/L)	< 0.001	05/30/19-06/19/19	O	2	0	< 0.001	< 0 .001					
Se (TRC) (mg/L)	< 0.0002	05/30/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
Ag (TRC) (mg/L)	< 0.0002	05/30/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
Sr (TRC) (mg/L)	0.145	05/30/19-06/19/19	O	2	2	0.111	0.145	0.127	0.128	0.024	0.756	H
Tl (TRC) (mg/L)	< 0.0002	05/30/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
U (TRC) (mg/L)	0.0008	05/30/19-06/19/19	O	2	2	0.0005	0.0008	0.0006	0.0007	0.0002	0.8377	H
Zn (TRC) (mg/L)	0.004	05/30/19-06/19/19	O	2	1	< 0.002	0.004					

SAMPLE NO BBC-1906-220 LAB NO: H19060528-021

STATION:MW-16

06/20/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	5.4	01/24/18-06/20/19	O	6	6	5.4	8.8	7.2	8	1.5	1.2	L
DO (mg/L)	0.2	01/24/18-06/20/19	O	6	6	0.0	0.3	0.1	0.2	0.1	0.8	
EH (Millivolts)	155.61	03/21/18-06/20/19	O	5	5	155.61	187.23	171.55	172.38	13.41	1.19	L
pH Fld (s.u.)	7.32	01/24/18-06/20/19	O	6	6	7.14	7.33	7.28	7.3	0.07	0.6	
SC Fld (umhos/cm)	581	01/24/18-06/20/19	O	6	6	568.0	653.0	614.0	620	34.4	1.0	
Water Temp (Deg C)	6.4	01/24/18-06/20/19	O	6	6	6.4	6.9	6.6	6.6	0.2	1.2	L
TDS (mg/L)	342	01/24/18-06/20/19	O	6	6	329.0	395.0	369.1	382	27.5	1.0	
TSS (mg/L)	< 10	01/24/18-06/20/19	O	6	4	< 10	82.0	20.4	18	27.4	0.4	L
Tot Alk (mg/L)	230	01/24/18-06/20/19	O	6	6	220.0	250.0	239.7	245	12.6	0.8	
Ca (mg/L)	71	06/20/19	O	1	1	71.0	71.0	71.0	71	0	0.0	H
Chloride (mg/L)	2	01/24/18-06/20/19	O	6	6	1.0	2.0	1.3	1	0.5	1.5	H
F (mg/L)	0.5	01/24/18-06/20/19	O	6	6	0.5	0.5	0.5	0.5	0	0.0	H
Tot Hard (mg/L)	326	01/24/18-06/20/19	O	6	6	326.0	368.0	343.3	340	18.3	0.9	L
Mg (mg/L)	36	06/20/19	O	1	1	36.0	36.0	36.0	36	0	0.0	H
K (mg/L)	3	06/20/19	O	1	1	3.0	3.0	3.0	3	0	0.0	H
Na (mg/L)	4	06/20/19	O	1	1	4.0	4.0	4.0	4	0	0.0	H
SO4 (mg/L)	88	01/24/18-06/20/19	O	6	6	72.0	107.0	95.9	103.5	14.1	0.6	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Nitrate + (mg/L)	< 0.01	01/24/18-06/20/19	O	6	1	< 0.01	< 0 .01					
Al (DIS) (mg/L)	< 0.009	06/20/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	06/20/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	0.005	06/20/19	O	1	1	0.005	0.005	0.005	0.005	0	0.0	H
Ba (DIS) (mg/L)	0.018	06/20/19	O	1	1	0.018	0.018	0.018	0.018	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/20/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/20/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/20/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/20/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	1.27	06/20/19	O	1	1	1.27	1.27	1.27	1.27	0	0.0	H
Pb (DIS) (mg/L)	< 0.0003	06/20/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	0.041	06/20/19	O	1	1	0.041	0.041	0.041	0.041	0	0.0	H
Hg (DIS) (ug/L)	< 0.005	06/20/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	06/20/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.276	06/20/19	O	1	1	0.276	0.276	0.276	0.276	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0017	06/20/19	O	1	1	0.0017	0.0017	0.0017	0.0017	0	0.0	H
Zn (DIS) (mg/L)	0.004	06/20/19	O	1	1	0.004	0.004	0.004	0.004	0	0.0	H

SAMPLE NO BBC-1906-232 LAB NO: H19060562-012

STATION:MW-17

06/21/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	46.6	06/14/18-06/21/19	O	4	4	44.9	52.0	48.4	48.5	3.3	0.5	
DO (mg/L)	6.62	06/14/18-06/21/19	O	4	4	5.82	6.62	6.31	6.42	0.38	0.82	H
EH (Millivolts)	278.54	06/14/18-06/21/19	O	4	4	241.75	285.01	265.89	269.49	19.47	0.65	
pH Fld (s.u.)	7.74	06/14/18-06/21/19	O	4	4	7.65	7.75	7.72	7.74	0.05	0.45	
SC Fld (umhos/cm)	358	06/14/18-06/21/19	O	4	4	358.0	386.0	377.1	382.5	13.1	1.5	L
Water Temp (Deg C)	6.8	06/14/18-06/21/19	O	4	4	6.2	7.4	6.8	6.9	0.5	0.1	
TDS (mg/L)	203	06/14/18-06/21/19	O	4	4	198.0	213.0	206.4	207.5	7.2	0.5	
TSS (mg/L)	< 10	06/14/18-06/21/19	O	4	0	< 10	< 10					
Tot Alk (mg/L)	190	06/14/18-06/21/19	O	4	4	190.0	200.0	197.5	200	5	1.5	L

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Ca (mg/L)	43	06/21/19	O	1	1	43.0	43.0	43.0	43	0	0.0	H
Chloride (mg/L)	1	06/14/18-06/21/19	O	4	4	1.0	2.0	1.7	2	0.5	1.4	L
F (mg/L)	0.2	06/14/18-06/21/19	O	4	4	0.2	0.3	0.3	0.3	0	0.0	L
Tot Hard (mg/L)	206	06/14/18-06/21/19	O	4	4	206.0	214.0	211.2	212.5	3.6	1.5	L
Mg (mg/L)	24	06/21/19	O	1	1	24.0	24.0	24.0	24	0	0.0	H
K (mg/L)	< 1	06/21/19	O	1	0	< 1	< 1					
Na (mg/L)	2	06/21/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	9	06/14/18-06/21/19	O	4	4	8.0	9.0	8.5	8.5	0.6	0.9	H
Nitrate + (mg/L)	0.41	06/14/18-06/21/19	O	4	4	0.41	0.5	0.46	0.47	0.04	1.21	L
Al (DIS) (mg/L)	< 0.009	06/21/19	O	1	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	06/21/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	06/21/19	O	1	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.253	06/21/19	O	1	1	0.253	0.253	0.253	0.253	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/21/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/21/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/21/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/21/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	06/21/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	06/21/19	O	1	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	06/21/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	06/21/19	O	1	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	06/21/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	06/21/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	06/21/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	0.001	06/21/19	O	1	1	0.001	0.001	0.001	0.001	0	0.0	H
Ag (DIS) (mg/L)	< 0.0002	06/21/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.105	06/21/19	O	1	1	0.105	0.105	0.105	0.105	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	06/21/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0009	06/21/19	O	1	1	0.0009	0.0009	0.0009	0.0009	0	0.0	H
Zn (DIS) (mg/L)	0.007	06/21/19	O	1	1	0.007	0.007	0.007	0.007	0	0.0	H

SAMPLE NO BBC-1906-231 LAB NO: H19060562-011 STATION:MW-19

06/21/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	8.97	01/24/18-06/21/19	O	6	6	8.51	15.54	12.3	13.83	3.13	1.06	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

DO (mg/L)	7.67	01/24/18-06/21/19	O	6	6	6.69	7.67	7.14	7.11	0.35	1.51	H
EH (Millivolts)	278.98	03/20/18-06/21/19	O	5	5	251.79	340.72	287.36	278.98	32.77	0.26	
pH Fld (s.u.)	7.57	01/24/18-06/21/19	O	6	6	7.47	7.79	7.57	7.54	0.11	0.02	
SC Fld (umhos/cm)	329	01/24/18-06/21/19	O	6	6	329.0	417.0	381.0	394	34.7	1.5	L
Water Temp (Deg C)	6	01/24/18-06/21/19	O	6	6	6.0	8.1	7.0	7	0.8	1.2	L
TDS (mg/L)	202	01/24/18-06/21/19	O	6	6	202.0	234.0	219.1	220.5	11.2	1.5	L
TSS (mg/L)	< 10	01/24/18-06/21/19	O	6	4	< 10	37.0	17.6	18	10.9	0.7	L
Tot Alk (mg/L)	180	01/24/18-06/21/19	O	6	6	180.0	210.0	199.7	205	12.6	1.6	L
Ca (mg/L)	48	06/21/19	O	1	1	48.0	48.0	48.0	48	0	0.0	H
Chloride (mg/L)	< 1	01/24/18-06/21/19	O	6	1	< 1	< 1					
F (mg/L)	0.1	01/24/18-06/21/19	O	6	6	0.1	0.1	0.1	0.1	0	0.0	H
Tot Hard (mg/L)	196	01/24/18-06/21/19	O	6	6	196.0	230.0	218.5	224.5	13.3	1.7	L
Mg (mg/L)	19	06/21/19	O	1	1	19.0	19.0	19.0	19	0	0.0	H
K (mg/L)	< 1	06/21/19	O	1	0	< 1	< 1					
Na (mg/L)	2	06/21/19	O	1	1	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	13	01/24/18-06/21/19	O	6	6	11.0	16.0	13.9	14.5	1.8	0.5	
Nitrate + (mg/L)	0.29	01/24/18-06/21/19	O	6	6	0.18	0.48	0.25	0.23	0.11	0.36	
Al (DIS) (mg/L)	0.018	06/21/19	O	1	1	0.018	0.018	0.018	0.018	0	0.0	H
Sb (DIS) (mg/L)	< 0.0005	06/21/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	06/21/19	O	1	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.077	06/21/19	O	1	1	0.077	0.077	0.077	0.077	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/21/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/21/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/21/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/21/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	06/21/19	O	1	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	0.02	06/21/19	O	1	1	0.02	0.02	0.02	0.02	0	0.0	H
Pb (DIS) (mg/L)	< 0.0003	06/21/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	06/21/19	O	1	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	06/21/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	06/21/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	06/21/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	06/21/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	06/21/19	O	1	0	< 0.0002	: 0 .0002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Sr (DIS) (mg/L)	0.148	06/21/19	O	1	1	0.148	0.148	0.148	0.148	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	06/21/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0007	06/21/19	O	1	1	0.0007	0.0007	0.0007	0.0007	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	06/21/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-222 LAB NO: H19060562-002 STATION:MW-20

06/20/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Depth to W (Feet)	21.9	01/24/18-06/20/19	O	6	6	18.1	25.9	22.4	22.3	2.9	0.2	
DO (mg/L)	9.25	01/24/18-06/20/19	O	6	6	7.06	9.51	8.55	9.11	1.1	0.63	
EH (Millivolts)	251.36	03/20/18-06/20/19	O	5	5	244.47	278.77	262.5	267.21	14.41	0.77	
pH Fld (s.u.)	7.81	01/24/18-06/20/19	O	6	6	7.4	7.81	7.69	7.75	0.15	0.79	H
SC Fld (umhos/cm)	364	01/24/18-06/20/19	O	6	6	364.0	410.0	389.2	391	16.9	1.5	L
Water Temp (Deg C)	6.7	01/24/18-06/20/19	O	6	6	6.7	8.1	7.5	7.7	0.5	1.6	L
TDS (mg/L)	205	01/24/18-06/20/19	O	6	6	198.0	225.0	212.5	215.5	9.6	0.8	
TSS (mg/L)	19	01/24/18-06/20/19	O	6	6	19.0	603.0	150.4	190.5	232.3	0.6	L
Tot Alk (mg/L)	190	01/24/18-06/20/19	O	6	6	190.0	290.0	225.4	210	41.2	0.9	L
Ca (mg/L)	43	06/20/19	O	1	1	43.0	43.0	43.0	43	0	0.0	H
Chloride (mg/L)	< 1	01/24/18-06/20/19	O	6	0	< 1	< 1					
F (mg/L)	0.1	01/24/18-06/20/19	O	6	3	0.1	0.1					
Tot Hard (mg/L)	194	01/24/18-06/20/19	O	6	6	194.0	229.0	212.8	217	13.6	1.4	L
Mg (mg/L)	21	06/20/19	O	1	1	21.0	21.0	21.0	21	0	0.0	H
K (mg/L)	< 1	06/20/19	O	1	0	< 1	< 1					
Na (mg/L)	1	06/20/19	O	1	1	1.0	1.0	1.0	1	0	0.0	H
SO4 (mg/L)	8	01/24/18-06/20/19	O	6	6	7.0	10.0	8.9	9.5	1.3	0.7	
Nitrate + (mg/L)	0.34	01/24/18-06/20/19	O	6	6	0.28	0.4	0.33	0.33	0.05	0.25	
Al (DIS) (mg/L)	0.013	06/20/19	O	1	1	0.013	0.013	0.013	0.013	0	0.0	H
Sb (DIS) (mg/L)	< 0.0005	06/20/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	06/20/19	O	1	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.176	06/20/19	O	1	1	0.176	0.176	0.176	0.176	0	0.0	H
Be (DIS) (mg/L)	< 0.0008	06/20/19	O	1	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	06/20/19	O	1	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	06/20/19	O	1	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	06/20/19	O	1	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Fe (DIS) (mg/L)	< 0.02	06/20/19	O	1	0	< 0.02	< 0 .02					
Pb (DIS) (mg/L)	< 0.0003	06/20/19	O	1	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	06/20/19	O	1	0	< 0.005	< 0 .005					
Hg (DIS) (ug/L)	< 0.005	06/20/19	O	1	0	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	06/20/19	O	1	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.0591	06/20/19	O	1	1	0.0591	0.0591	0.0591	0.0591	0	0.0	H
Tl (DIS) (mg/L)	< 0.0002	06/20/19	O	1	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0005	06/20/19	O	1	1	0.0005	0.0005	0.0005	0.0005	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	06/20/19	O	1	0	< 0.002	< 0 .002					

SAMPLE NO BBC-1906-112 LAB NO: H19060535-002

STATION:SP-11

06/19/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	6.89	04/18/18-06/19/19	O	11	11	6.09	8.36	7.17	7.03	0.66	0.43	
pH Fld (s.u.)	7.27	04/18/18-06/19/19	O	11	11	6.28	7.98	7.41	7.59	0.54	0.26	
SC Fld (umhos/cm)	192	04/18/18-06/19/19	O	11	11	171.0	195.0	185.3	186	8.2	0.8	
Water Temp (Deg C)	6.5	04/18/18-06/19/19	O	11	11	5.6	7.4	6.4	6.3	0.5	0.3	
TDS (mg/L)	127	04/18/18-06/19/19	O	11	11	99.0	133.0	116.9	116	11.1	0.9	
TSS (mg/L)	< 10	04/18/18-06/19/19	O	11	1	< 10	< 10					
Tot Alk (mg/L)	92	04/18/18-06/19/19	O	11	11	82.0	95.0	91.4	92	3.6	0.2	
Ca (mg/L)	23	06/19/19	O	1	1	23.0	23.0	23.0	23	0	0.0	H
Chloride (mg/L)	< 1	04/18/18-06/19/19	O	11	0	< 1	< 1					
F (mg/L)	0.1	04/18/18-06/19/19	O	11	11	0.1	0.2	0.2	0.2	0	0.0	L
Tot Hard (mg/L)	90	04/18/18-06/19/19	O	11	11	81.0	95.0	90.8	92	4	0.2	
Mg (mg/L)	8	06/19/19	O	1	1	8.0	8.0	8.0	8	0	0.0	H
K (mg/L)	1	06/19/19	O	1	1	1.0	1.0	1.0	1	0	0.0	H
Na (mg/L)	3	06/19/19	O	1	1	3.0	3.0	3.0	3	0	0.0	H
SO4 (mg/L)	7	04/18/18-06/19/19	O	11	11	5.0	8.0	6.8	7	0.9	0.3	
Nitrate + (mg/L)	0.25	04/18/18-06/19/19	O	11	11	0.22	0.31	0.25	0.25	0.03	0.04	
Al (DIS) (mg/L)	0.079	06/19/19	O	1	1	0.079	0.079	0.079	0.079	0	0.0	H
Sb (DIS) (mg/L)	< 0.0005	06/19/19	O	1	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	0.007	06/19/19	O	1	1	0.007	0.007	0.007	0.007	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Ba (DIS) (mg/L)	0.303	06/19/19	O	1	1	0.303	0.303	0.303	0.303	0	0.0 H
Be (DIS) (mg/L)	< 0.0008	06/19/19	O	1	0	< 0.0008	: 0 .0008				
Cd (DIS) (mg/L)	< 0	06/19/19	O	1	0	< 0	: .00003				
Cr (DIS) (mg/L)	< 0.01	06/19/19	O	1	0	< 0.01	< 0 .01				
Co (DIS) (mg/L)	< 0.01	06/19/19	O	1	0	< 0.01	< 0 .01				
Cu (DIS) (mg/L)	< 0.002	06/19/19	O	1	0	< 0.002	< 0 .002				
Fe (DIS) (mg/L)	0.04	06/19/19	O	1	1	0.04	0.04	0.04	0.04	0	0.0 H
Pb (DIS) (mg/L)	< 0.0003	06/19/19	O	1	0	< 0.0003	: 0 .0003				
Mn (DIS) (mg/L)	< 0.005	06/19/19	O	1	0	< 0.005	< 0 .005				
Hg (DIS) (ug/L)	< 0.005	06/19/19	O	1	0	< 0.005	< 0 .005				
Mo (DIS) (mg/L)	< 0.002	06/19/19	O	1	0	< 0.002	< 0 .002				
Ni (DIS) (mg/L)	< 0.001	06/19/19	O	1	0	< 0.001	< 0 .001				
Se (DIS) (mg/L)	< 0.0002	06/19/19	O	1	0	< 0.0002	: 0 .0002				
Ag (DIS) (mg/L)	< 0.0002	06/19/19	O	1	0	< 0.0002	: 0 .0002				
Sr (DIS) (mg/L)	0.104	06/19/19	O	1	1	0.104	0.104	0.104	0.104	0	0.0 H
Tl (DIS) (mg/L)	< 0.0002	06/19/19	O	1	0	< 0.0002	: 0 .0002				
U (DIS) (mg/L)	0.0005	06/19/19	O	1	1	0.0005	0.0005	0.0005	0.0005	0	0.0 H
Zn (DIS) (mg/L)	< 0.002	06/19/19	O	1	0	< 0.002	< 0 .002				

SAMPLE NO BBC-1906-124 LAB NO: H19060535-008

STATION:SP-12

PARAMETER	06/19/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	6.07	04/18/18-06/19/19	O	11	11	3.32	10.38	6.44	7.04	2.15	0.17	
pH Fld (s.u.)	7.71	04/18/18-06/19/19	O	11	11	6.76	7.95	7.57	7.71	0.34	0.42	
SC Fld (umhos/cm)	400	04/18/18-06/19/19	O	11	11	400.0	473.0	438.8	437	20.3	1.9	L
Water Temp (Deg C)	6.8	04/18/18-06/19/19	O	11	11	5.1	7.3	6.2	6.2	0.7	0.9	
TDS (mg/L)	230	04/18/18-06/19/19	O	12	12	230.0	262.0	245.6	247.5	10.2	1.5	L
TSS (mg/L)	< 10	04/18/18-06/19/19	O	12	7	< 10	187.0	26.8	22.5	55.1	0.3	L
Tot Alk (mg/L)	180	04/18/18-06/19/19	O	12	12	180.0	220.0	203.0	210	11.5	2.0	L
Ca (mg/L)	47	05/30/19-06/19/19	O	2	2	47.0	50.0	48.5	48.5	2.1	0.7	L
Chloride (mg/L)	7	04/18/18-06/19/19	O	12	12	5.0	10.0	7.5	8	1.6	0.3	
F (mg/L)	0.2	04/18/18-06/19/19	O	12	12	0.2	0.2	0.2	0.2	0	0.0	H
Tot Hard (mg/L)	200	04/18/18-06/19/19	O	12	12	200.0	258.0	232.2	235.5	15.7	2.0	L
Mg (mg/L)	20	05/30/19-06/19/19	O	2	2	20.0	21.0	20.5	20.5	0.7	0.7	L
K (mg/L)	1	05/30/19-06/19/19	O	2	2	1.0	1.0	1.0	1	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Na (mg/L)	2	05/30/19-06/19/19	O	2	2	2.0	2.0	2.0	2	0	0.0	H
SO4 (mg/L)	19	04/18/18-06/19/19	O	12	12	13.0	28.0	22.7	24	4.1	0.9	
Nitrate + (mg/L)	0.33	04/18/18-06/19/19	O	12	12	0.12	0.69	0.36	0.33	0.16	0.16	
Al (DIS) (mg/L)	< 0.009	05/30/19-06/19/19	O	2	0	< 0.009	< 0 .009					
Sb (DIS) (mg/L)	< 0.0005	05/30/19-06/19/19	O	2	0	< 0.0005	: 0 .0005					
As (DIS) (mg/L)	< 0.001	05/30/19-06/19/19	O	2	0	< 0.001	< 0 .001					
Ba (DIS) (mg/L)	0.157	05/30/19-06/19/19	O	2	2	0.157	0.16	0.158	0.159	0.002	0.746	L
Be (DIS) (mg/L)	< 0.0008	05/30/19-06/19/19	O	2	0	< 0.0008	: 0 .0008					
Cd (DIS) (mg/L)	< 0	05/30/19-06/19/19	O	2	0	< 0	: .00003					
Cr (DIS) (mg/L)	< 0.01	05/30/19-06/19/19	O	2	0	< 0.01	< 0 .01					
Co (DIS) (mg/L)	< 0.01	05/30/19-06/19/19	O	2	0	< 0.01	< 0 .01					
Cu (DIS) (mg/L)	< 0.002	05/30/19-06/19/19	O	2	0	< 0.002	< 0 .002					
Fe (DIS) (mg/L)	< 0.02	05/30/19-06/19/19	O	2	1	< 0.02	0.07					
Pb (DIS) (mg/L)	< 0.0003	05/30/19-06/19/19	O	2	0	< 0.0003	: 0 .0003					
Mn (DIS) (mg/L)	< 0.005	05/30/19-06/19/19	O	2	1	< 0.005	0.017					
Hg (DIS) (ug/L)	< 0.005	05/30/19-06/19/19	O	2	1	< 0.005	< 0 .005					
Mo (DIS) (mg/L)	< 0.002	05/30/19-06/19/19	O	2	0	< 0.002	< 0 .002					
Ni (DIS) (mg/L)	< 0.001	05/30/19-06/19/19	O	2	0	< 0.001	< 0 .001					
Se (DIS) (mg/L)	< 0.0002	05/30/19-06/19/19	O	2	1	< 0.0002	: 0 .0002					
Ag (DIS) (mg/L)	< 0.0002	05/30/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
Sr (DIS) (mg/L)	0.0968	05/30/19-06/19/19	O	2	2	0.0968	0.103	0.0999	0.0999	0.0044	0.6936	L
Tl (DIS) (mg/L)	< 0.0002	05/30/19-06/19/19	O	2	0	< 0.0002	: 0 .0002					
U (DIS) (mg/L)	0.0006	05/30/19-06/19/19	O	2	2	0.0006	0.0006	0.0006	0.0006	0	0.0	H
Zn (DIS) (mg/L)	< 0.002	05/30/19-06/19/19	O	2	0	< 0.002	< 0 .002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

APPENDIX 2

DATABASE

Analyses Summary Report

Site Name: Black Butte Mine 7/31/2019 1:55:00 PM

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DI-Blank	DS-1	DS-10	DS-10
Water	Sample Date	6/19/2019	6/19/2019	6/19/2019	6/20/2019	6/2/2019	6/18/2019
	Sample Time	6:25:00 PM	6:30:00 PM	7:00:00 PM	12:00:00 PM	6:40:00 AM	1:10:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro
	Lab Number	H19060536-008	H19060528-017	H19060535-010	H19060535-011	z	z
	Sample Number	BBC-1906-127	BBC-1906-216	BBC-1906-128	BBC-1906-132	BBC-1905-104	BBC-1906-102
	Remarks	DUPLICATE		DUPLICATE			
Field Parameters	Multiple Units						
Depth To Water							
Dissolved Oxygen					8.83	9.26	7.67
EH							
Field pH					7.73	7.52	7.36
Field Specific Conductivity					415	401	400
Flow							
Flow					22.67	6.8	5
Staff Gauge							
Water Temperature					7.1	5.9	7
Physical Parameters	mg/L						
Total Dissolved Solids	<10	<10	<10	231			
Total Suspended Solids	<4	<10	<10	<10			
Major Constituents - Commons Ions	mg/L						
Alkalinity as CaCO3	<4	<4	<4	210			
Calcium (DIS)	<1	<1	<1	57			
Chloride	<1	<1	<1	<1			
Fluoride	<0.1	<0.1	<0.1	<0.1			
Hardness as CaCO3	<1	<1	<1	227			
Magnesium (DIS)	<1	<1	<1	21			
Potassium (DIS)	<1	<1	<1	<1			
Sodium (DIS)	<1	<1	<1	2			
Sulfate	<1	<1	<1	15			
Nutrients	mg/L						
Nitrate + Nitrite as N	<0.01	<0.01	<0.01	0.16			
Phosphorus (TOT)	<0.003						
Total Nitrogen as N (Persulfate)	<0.04						
Metals - Trace Constituents	Multiple Units						
Aluminum (DIS)	<0.009	<0.009	<0.009	<0.009			
Antimony (DIS)		<0.0005	<0.0005	<0.0005			
Antimony (TRC)	<0.0005						
Arsenic (DIS)		<0.001	<0.001	<0.001			
Arsenic (TRC)	<0.001						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DI-Blank	DS-1	DS-10	DS-10
Water	Sample Date	6/19/2019	6/19/2019	6/19/2019	6/20/2019	6/2/2019	6/18/2019
	Sample Time	6:25:00 PM	6:30:00 PM	7:00:00 PM	12:00:00 PM	6:40:00 AM	1:10:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro
	Lab Number	H19060536-008	H19060528-017	H19060535-010	H19060535-011	z	z
	Sample Number	BBC-1906-127	BBC-1906-216	BBC-1906-128	BBC-1906-132	BBC-1905-104	BBC-1906-102
	Remarks	DUPLICATE		DUPLICATE			
Metals - Trace Constituents	Multiple Units						
Barium (DIS)			<0.003	<0.003	0.05		
Barium (TRC)		<0.003					
Beryllium (DIS)			<0.0008	<0.0008	<0.0008		
Beryllium (TRC)		<0.0008					
Cadmium (DIS)			<0.00003	<0.00003	<0.00003		
Cadmium (TRC)		<0.00003					
Chromium (DIS)			<0.01	<0.01	<0.01		
Chromium (TRC)		<0.01					
Cobalt (DIS)			<0.01	<0.01	<0.01		
Cobalt (TRC)		<0.01					
Copper (DIS)			<0.002	<0.002	<0.002		
Copper (TRC)		<0.002					
Iron (DIS)			<0.02	<0.02	<0.02		
Iron (TRC)		<0.02					
Lead (DIS)			<0.0003	<0.0003	<0.0003		
Lead (TRC)		<0.0003					
Manganese (DIS)			<0.005	<0.005	<0.005		
Manganese (TRC)		<0.005					
Mercury (DIS)			<0.005	<0.005	<0.005		
Mercury (TRC)		<0.005					
Molybdenum (DIS)			<0.002	<0.002	<0.002		
Molybdenum (TRC)		<0.002					
Nickel (DIS)			<0.001	<0.001	<0.001		
Nickel (TRC)		<0.001					
Selenium (DIS)			<0.0002	<0.0002	<0.0002		
Selenium (TRC)		<0.0002					
Silver (DIS)			<0.0002	<0.0002	<0.0002		
Silver (TRC)		<0.0002					
Strontium (DIS)			<0.0002	<0.0002	0.107		
Strontium (TRC)		<0.0003					
Thallium (DIS)			<0.0002	<0.0002	<0.0002		
Thallium (TRC)		<0.0002					
Uranium (DIS)			<0.0002	<0.0002	0.0006		

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	DI-Blank	DI-Blank	DI-Blank	DS-1	DS-10	DS-10
Water	Sample Date	6/19/2019	6/19/2019	6/19/2019	6/20/2019	6/2/2019	6/18/2019
	Sample Time	6:25:00 PM	6:30:00 PM	7:00:00 PM	12:00:00 PM	6:40:00 AM	1:10:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro
	Lab Number	H19060536-008	H19060528-017	H19060535-010	H19060535-011	z	z
	Sample Number	BBC-1906-127	BBC-1906-216	BBC-1906-128	BBC-1906-132	BBC-1905-104	BBC-1906-102
	Remarks	DUPLICATE		DUPLICATE			
Metals - Trace Constituents	Multiple Units						
	Uranium (TRC)	<0.0002					
	Zinc (DIS)		<0.002	<0.002	0.007		
	Zinc (TRC)	<0.002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DS-11	DS-2	DS-3	DS-4	DS-7	DS-8
Water	Sample Date	6/18/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019	6/18/2019
	Sample Time	3:05:00 PM	12:05:00 PM	1:00:00 PM	1:20:00 PM	2:10:00 PM	12:30:00 PM
	Lab	Hydro	Hydro	Energy Labs	Energy Labs	Hydro	Hydro
	Lab Number	z	z	H19060535-003	H19060535-004	z	z
	Sample Number	BBC-1906-105	BBC-1906-113	BBC-1906-116	BBC-1906-117	BBC-1906-119	BBC-1906-100
	Remarks						

Field Parameters	Multiple Units					
Depth To Water						
Dissolved Oxygen	978	7.69	6.43	7.78	9.3	9.71
EH						
Field pH	7.82	7.25	6.4	6.25	7.28	7.81
Field Specific Conductivity	429	259	45	90	228	420
Flow						
Flow	13.04	2.14	13.95	NM	7.79	8
Staff Gauge						
Water Temperature	5.2	8.5	7.3	6.9	7.6	5.4
Physical Parameters	mg/L					
Total Dissolved Solids			69	87		
Total Suspended Solids			<10	<10		
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3			20	40		
Calcium (DIS)			5	13		
Chloride			<1	<1		
Fluoride			<0.1	<0.1		
Hardness as CaCO3			20	42		
Magnesium (DIS)			2	3		
Potassium (DIS)			1	<1		
Sodium (DIS)			1	1		
Sulfate			1	3		
Nutrients	mg/L					
Nitrate + Nitrite as N			0.15	0.25		
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)			1.95	1.28		
Antimony (DIS)			<0.0005	<0.0005		
Antimony (TRC)						
Arsenic (DIS)			<0.001	0.001		
Arsenic (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DS-11	DS-2	DS-3	DS-4	DS-7	DS-8
Water	Sample Date	6/18/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019	6/18/2019
	Sample Time	3:05:00 PM	12:05:00 PM	1:00:00 PM	1:20:00 PM	2:10:00 PM	12:30:00 PM
	Lab	Hydro	Hydro	Energy Labs	Energy Labs	Hydro	Hydro
	Lab Number	z	z	H19060535-003	H19060535-004	z	z
	Sample Number	BBC-1906-105	BBC-1906-113	BBC-1906-116	BBC-1906-117	BBC-1906-119	BBC-1906-100
	Remarks						

Metals - Trace Constituents Multiple Units		
Barium (DIS)	0.245	0.309
Barium (TRC)		
Beryllium (DIS)	<0.0008	<0.0008
Beryllium (TRC)		
Cadmium (DIS)	<0.00003	<0.00003
Cadmium (TRC)		
Chromium (DIS)	<0.01	<0.01
Chromium (TRC)		
Cobalt (DIS)	<0.01	<0.01
Cobalt (TRC)		
Copper (DIS)	0.003	<0.002
Copper (TRC)		
Iron (DIS)	1.24	0.77
Iron (TRC)		
Lead (DIS)	0.0003	<0.0003
Lead (TRC)		
Manganese (DIS)	0.006	0.006
Manganese (TRC)		
Mercury (DIS)	0.01	0.006
Mercury (TRC)		
Molybdenum (DIS)	<0.002	<0.002
Molybdenum (TRC)		
Nickel (DIS)	0.004	0.002
Nickel (TRC)		
Selenium (DIS)	<0.0002	<0.0002
Selenium (TRC)		
Silver (DIS)	<0.0002	<0.0002
Silver (TRC)		
Strontium (DIS)	0.0244	0.0396
Strontium (TRC)		
Thallium (DIS)	<0.0002	<0.0002
Thallium (TRC)		
Uranium (DIS)	<0.0002	<0.0002

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DS-11	DS-2	DS-3	DS-4	DS-7	DS-8
Water	Sample Date	6/18/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019	6/18/2019
	Sample Time	3:05:00 PM	12:05:00 PM	1:00:00 PM	1:20:00 PM	2:10:00 PM	12:30:00 PM
	Lab	Hydro	Hydro	Energy Labs	Energy Labs	Hydro	Hydro
	Lab Number	z	z	H19060535-003	H19060535-004	z	z
	Sample Number	BBC-1906-105	BBC-1906-113	BBC-1906-116	BBC-1906-117	BBC-1906-119	BBC-1906-100
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Uranium (TRC)						
	Zinc (DIS)			0.006	0.006		
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 7/31/2019 1:55:00 PM

Sample Type:	Station (Site)	DS-9	DS-9	MW-10	MW-11	MW-12	MW-13
Water	Sample Date	6/2/2019	6/18/2019	6/20/2019	6/21/2019	6/21/2019	6/21/2019
	Sample Time	6:40:00 AM	12:50:00 PM	6:40:00 PM	9:20:00 AM	9:50:00 AM	10:25:00 AM
	Lab	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	z	z	H19060562-007	H19060562-008	H19060562-009	H19060562-010
	Sample Number	BBC-1905-103	BBC-1906-101	BBC-1906-227	BBC-1906-228	BBC-1906-229	BBC-1906-230
	Remarks						

Field Parameters	Multiple Units					
Depth To Water			66.23	25.75	22.54	17.54
Dissolved Oxygen	9.69	8.73	7.65	9.57	9.35	8.97
EH			272	281.21	283.58	280.61
Field pH	7.87	7.73	8.04	7.72	7.6	7.6
Field Specific Conductivity	358	360	351	296	342	388
Flow						
Flow	4	6.74				
Staff Gauge						
Water Temperature	6.1	7.5	6.5	7.6	6	5.8
Physical Parameters	mg/L					
Total Dissolved Solids			188	160	210	221
Total Suspended Solids			<10	25	<10	<10
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3			180	150	200	210
Calcium (DIS)			44	43	58	57
Chloride			<1	<1	<1	<1
Fluoride			0.2	<0.1	0.1	0.1
Hardness as CaCO3			184	151	223	222
Magnesium (DIS)			18	11	19	20
Potassium (DIS)			2	2	<1	<1
Sodium (DIS)			6	4	2	2
Sulfate			4	5	11	14
Nutrients	mg/L					
Nitrate + Nitrite as N			0.6	0.47	0.13	0.15
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)			0.027	<0.009	<0.009	<0.009
Antimony (DIS)			<0.0005	<0.0005	<0.0005	<0.0005
Antimony (TRC)						
Arsenic (DIS)			<0.001	<0.001	<0.001	<0.001
Arsenic (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- J: The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DS-9	DS-9	MW-10	MW-11	MW-12	MW-13
Water	Sample Date	6/2/2019	6/18/2019	6/20/2019	6/21/2019	6/21/2019	6/21/2019
	Sample Time	6:40:00 AM	12:50:00 PM	6:40:00 PM	9:20:00 AM	9:50:00 AM	10:25:00 AM
	Lab	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	z	z	H19060562-007	H19060562-008	H19060562-009	H19060562-010
	Sample Number	BBC-1905-103	BBC-1906-101	BBC-1906-227	BBC-1906-228	BBC-1906-229	BBC-1906-230
	Remarks						
	Metals - Trace Constituents Multiple Units						
	Barium (DIS)			0.211	0.149	0.051	0.054
	Barium (TRC)						
	Beryllium (DIS)			<0.0008	<0.0008	<0.0008	<0.0008
	Beryllium (TRC)						
	Cadmium (DIS)			<0.00003	<0.00003	<0.00003	<0.00003
	Cadmium (TRC)						
	Chromium (DIS)			<0.01	<0.01	<0.01	<0.01
	Chromium (TRC)						
	Cobalt (DIS)			<0.01	<0.01	<0.01	<0.01
	Cobalt (TRC)						
	Copper (DIS)			<0.002	<0.002	<0.002	<0.002
	Copper (TRC)						
	Iron (DIS)			0.02	<0.02	<0.02	<0.02
	Iron (TRC)						
	Lead (DIS)			<0.0003	<0.0003	<0.0003	<0.0003
	Lead (TRC)						
	Manganese (DIS)			<0.005	<0.005	<0.005	<0.005
	Manganese (TRC)						
	Mercury (DIS)			<0.005	<0.005	<0.005	<0.005
	Mercury (TRC)						
	Molybdenum (DIS)			0.004	<0.002	<0.002	<0.002
	Molybdenum (TRC)						
	Nickel (DIS)			<0.001	<0.001	<0.001	<0.001
	Nickel (TRC)						
	Selenium (DIS)			<0.0002	<0.0002	<0.0002	<0.0002
	Selenium (TRC)						
	Silver (DIS)			<0.0002	<0.0002	<0.0002	<0.0002
	Silver (TRC)						
	Strontium (DIS)			0.893	0.322	0.136	0.0976
	Strontium (TRC)						
	Thallium (DIS)			<0.0002	<0.0002	<0.0002	<0.0002
	Thallium (TRC)						
	Uranium (DIS)			0.0051	0.0015	0.0007	0.0005

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	DS-9	DS-9	MW-10	MW-11	MW-12	MW-13
Water	Sample Date	6/2/2019	6/18/2019	6/20/2019	6/21/2019	6/21/2019	6/21/2019
	Sample Time	6:40:00 AM	12:50:00 PM	6:40:00 PM	9:20:00 AM	9:50:00 AM	10:25:00 AM
	Lab	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	z	z	H19060562-007	H19060562-008	H19060562-009	H19060562-010
	Sample Number	BBC-1905-103	BBC-1906-101	BBC-1906-227	BBC-1906-228	BBC-1906-229	BBC-1906-230
	Remarks						
	Metals - Trace Constituents Multiple Units						
	Uranium (TRC)						
	Zinc (DIS)			<0.002	<0.002	<0.002	<0.002
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 7/31/2019 1:55:00 PM

Sample Type:	Station (Site)	MW-16	MW-17	MW-19	MW-1A	MW-1B	MW-1B
Water	Sample Date	6/20/2019	6/21/2019	6/21/2019	6/19/2019	6/19/2019	6/21/2019
	Sample Time	10:30:00 AM	12:35:00 PM	11:00:00 AM	5:35:00 PM	3:45:00 PM	11:45:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19060528-021	H19060562-012	H19060562-011	H19060528-016	H19060528-015	H19060562-001
	Sample Number	BBC-1906-220	BBC-1906-232	BBC-1906-231	BBC-1906-215	BBC-1906-214	BBC-1906-221
	Remarks						
Field Parameters	Multiple Units						
Depth To Water		5.4	46.6	8.97	2.91	22.29	11.95
Dissolved Oxygen		0.2	6.62	7.67	9.14	0.18	7.72
EH		155.61	278.54	278.98	191.44	182.84	271.05
Field pH		7.32	7.74	7.57	7.28	6.41	7.78
Field Specific Conductivity		581	358	329	335	555	337
Flow							
Flow							
Staff Gauge							
Water Temperature		6.4	6.8	6	8	8.6	4.4
Physical Parameters	mg/L						
Total Dissolved Solids		342	203	202	187	422	187
Total Suspended Solids		<10	<10	<10	52	<10	<10
Major Constituents - Commons Ions	mg/L						
Alkalinity as CaCO3		230	190	180	160	96	190 H
Calcium (DIS)		71	43	48	44	62	43
Chloride		2	1	<1	1	1	<1
Fluoride		0.5	0.2	0.1	0.2	0.2	<0.1
Hardness as CaCO3		326	206	196	184	287	176
Magnesium (DIS)		36	24	19	18	32	17
Potassium (DIS)		3	<1	<1	1	3	<1
Sodium (DIS)		4	2	2	2	3	2
Sulfate		88	9	13	15	225	6
Nutrients	mg/L						
Nitrate + Nitrite as N		<0.01	0.41	0.29	0.43	0.04	0.18
Phosphorus (TOT)							
Total Nitrogen as N (Persulfate)							
Metals - Trace Constituents	Multiple Units						
Aluminum (DIS)		<0.009	<0.009	0.018	0.023	<0.009	<0.009
Antimony (DIS)		<0.0005	<0.0005	<0.0005	<0.0005	0.0009	<0.0005
Antimony (TRC)							
Arsenic (DIS)		0.005	<0.001	<0.001	<0.001	0.067	<0.001
Arsenic (TRC)							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	MW-16	MW-17	MW-19	MW-1A	MW-1B	MW-1B
Water	Sample Date	6/20/2019	6/21/2019	6/21/2019	6/19/2019	6/19/2019	6/21/2019
	Sample Time	10:30:00 AM	12:35:00 PM	11:00:00 AM	5:35:00 PM	3:45:00 PM	11:45:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19060528-021	H19060562-012	H19060562-011	H19060528-016	H19060528-015	H19060562-001
	Sample Number	BBC-1906-220	BBC-1906-232	BBC-1906-231	BBC-1906-215	BBC-1906-214	BBC-1906-221
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Barium (DIS)	0.018	0.253	0.077	0.168	0.011	0.092
	Barium (TRC)						
	Beryllium (DIS)	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
	Beryllium (TRC)						
	Cadmium (DIS)	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
	Cadmium (TRC)						
	Chromium (DIS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Chromium (TRC)						
	Cobalt (DIS)	<0.01	<0.01	<0.01	<0.01	0.02	<0.01
	Cobalt (TRC)						
	Copper (DIS)	<0.002	<0.002	<0.002	0.007	<0.002	<0.002
	Copper (TRC)						
	Iron (DIS)	1.27	<0.02	0.02	<0.02	18.9	<0.02
	Iron (TRC)						
	Lead (DIS)	<0.0003	<0.0003	<0.0003	0.0004	<0.0003	<0.0003
	Lead (TRC)						
	Manganese (DIS)	0.041	<0.005	<0.005	<0.005	0.075	<0.005
	Manganese (TRC)						
	Mercury (DIS)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	Mercury (TRC)						
	Molybdenum (DIS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	Molybdenum (TRC)						
	Nickel (DIS)	<0.001	<0.001	<0.001	<0.001	0.011	<0.001
	Nickel (TRC)						
	Selenium (DIS)	<0.0002	0.001	<0.0002	<0.0002	<0.0002	<0.0002
	Selenium (TRC)						
	Silver (DIS)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
	Silver (TRC)						
	Strontium (DIS)	0.276	0.105	0.148	0.0996	1.87	0.0894
	Strontium (TRC)						
	Thallium (DIS)	<0.0002	<0.0002	<0.0002	0.0009	0.0113	<0.0002
	Thallium (TRC)						
	Uranium (DIS)	0.0017	0.0009	0.0007	0.0009	<0.0002	0.0004

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	MW-16	MW-17	MW-19	MW-1A	MW-1B	MW-1B
Water	Sample Date	6/20/2019	6/21/2019	6/21/2019	6/19/2019	6/19/2019	6/21/2019
	Sample Time	10:30:00 AM	12:35:00 PM	11:00:00 AM	5:35:00 PM	3:45:00 PM	11:45:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19060528-021	H19060562-012	H19060562-011	H19060528-016	H19060528-015	H19060562-001
	Sample Number	BBC-1906-220	BBC-1906-232	BBC-1906-231	BBC-1906-215	BBC-1906-214	BBC-1906-221
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Uranium (TRC)						
	Zinc (DIS)	0.004	0.007	<0.002	<0.002	0.012	<0.002
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 7/31/2019 1:55:01 PM

Sample Type:	Station (Site)	MW-20	MW-2A	MW-2B	MW-3	MW-4A	MW-4B
Water	Sample Date	6/20/2019	6/17/2019	6/17/2019	6/17/2019	6/20/2019	6/20/2019
	Sample Time	12:55:00 PM	5:55:00 PM	6:20:00 PM	4:55:00 PM	9:10:00 AM	9:50:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19060562-002	H19060528-002	H19060528-003	H19060528-001	H19060528-019	H19060528-020
	Sample Number	BBC-1906-222	BBC-1906-201	BBC-1906-202	BBC-1906-200	BBC-1906-218	BBC-1906-219
	Remarks						
Field Parameters	Multiple Units						
Depth To Water		21.9	41.7	41.54	37.63	3.9	3.45
Dissolved Oxygen		9.25	7.48	0.1	0.06	0.21	0.25
EH		251.36	283.77	299.79	166.47	287.43	223.6
Field pH		7.81	7.44	7.29	7.14	7.36	7.6
Field Specific Conductivity		364	360	418	728	484	431
Flow							
Flow							
Staff Gauge							
Water Temperature		6.7	7.8	7.7	9.6	5.1	6.5
Physical Parameters	mg/L						
Total Dissolved Solids		205	192	248	508	274	240
Total Suspended Solids		19	<10	<10	<10	<10	<10
Major Constituents - Commons Ions	mg/L						
Alkalinity as CaCO3		190	180	200	210	240	220
Calcium (DIS)		43	41	50	72	75	64
Chloride		<1	1	1	1	3	2
Fluoride		0.1	0.3	0.3	0.8	0.1	0.1
Hardness as CaCO3		194	193	235	378	271	241
Magnesium (DIS)		21	22	27	48	20	20
Potassium (DIS)		<1	1	2	4	1	2
Sodium (DIS)		1	3	3	16	3	2
Sulfate		8	21	41	221	15	15
Nutrients	mg/L						
Nitrate + Nitrite as N		0.34	0.22	<0.01	<0.01	<0.01	0.06
Phosphorus (TOT)							
Total Nitrogen as N (Persulfate)							
Metals - Trace Constituents	Multiple Units						
Aluminum (DIS)		0.013	<0.009	<0.009	<0.009	<0.009	<0.009
Antimony (DIS)		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Antimony (TRC)							
Arsenic (DIS)		<0.001	<0.001	0.003	0.068	<0.001	<0.001
Arsenic (TRC)							

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Sample Type:	Station (Site)	MW-20	MW-2A	MW-2B	MW-3	MW-4A	MW-4B
Water	Sample Date	6/20/2019	6/17/2019	6/17/2019	6/17/2019	6/20/2019	6/20/2019
	Sample Time	12:55:00 PM	5:55:00 PM	6:20:00 PM	4:55:00 PM	9:10:00 AM	9:50:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19060562-002	H19060528-002	H19060528-003	H19060528-001	H19060528-019	H19060528-020
	Sample Number	BBC-1906-222	BBC-1906-201	BBC-1906-202	BBC-1906-200	BBC-1906-218	BBC-1906-219
	Remarks						

Metals - Trace Constituents	Multiple Units					
Barium (DIS)	0.176	0.083	0.044	0.011	0.172	0.126
Barium (TRC)						
Beryllium (DIS)	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Beryllium (TRC)						
Cadmium (DIS)	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Cadmium (TRC)						
Chromium (DIS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (TRC)						
Cobalt (DIS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt (TRC)						
Copper (DIS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Copper (TRC)						
Iron (DIS)	<0.02	<0.02	0.04	1.01	<0.02	<0.02
Iron (TRC)						
Lead (DIS)	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Lead (TRC)						
Manganese (DIS)	<0.005	<0.005	0.009	0.015	0.249	<0.005
Manganese (TRC)						
Mercury (DIS)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Mercury (TRC)						
Molybdenum (DIS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Molybdenum (TRC)						
Nickel (DIS)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Nickel (TRC)						
Selenium (DIS)	<0.0002	0.0012	0.0051	<0.0002	<0.0002	<0.0002
Selenium (TRC)						
Silver (DIS)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Silver (TRC)						
Strontium (DIS)	0.0591	0.0919	0.0951	13.6	0.163	0.167
Strontium (TRC)						
Thallium (DIS)	<0.0002	<0.0002	0.0036	0.0003	<0.0002	<0.0002
Thallium (TRC)						
Uranium (DIS)	0.0005	0.0005	0.0022	0.0011	0.0004	0.0006

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	MW-20	MW-2A	MW-2B	MW-3	MW-4A	MW-4B
Water	Sample Date	6/20/2019	6/17/2019	6/17/2019	6/17/2019	6/20/2019	6/20/2019
	Sample Time	12:55:00 PM	5:55:00 PM	6:20:00 PM	4:55:00 PM	9:10:00 AM	9:50:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19060562-002	H19060528-002	H19060528-003	H19060528-001	H19060528-019	H19060528-020
	Sample Number	BBC-1906-222	BBC-1906-201	BBC-1906-202	BBC-1906-200	BBC-1906-218	BBC-1906-219
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Uranium (TRC)						
	Zinc (DIS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 7/31/2019 1:55:01 PM

Sample Type:	Station (Site)	MW-6A	MW-6B	MW-7	MW-8	MW-9	PW-10
Water	Sample Date	6/20/2019	6/20/2019	6/20/2019	6/20/2019	6/19/2019	6/18/2019
	Sample Time	1:35:00 PM	2:10:00 PM	2:40:00 PM	3:45:00 PM	5:00:00 PM	3:30:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19060562-003	H19060562-004	H19060562-005	H19060562-006	H19060528-014	H19060528-009
	Sample Number	BBC-1906-223	BBC-1906-224	BBC-1906-225	BBC-1906-226	BBC-1906-213	BBC-1906-208
	Remarks						
Field Parameters	Multiple Units						
Depth To Water		7.02	10.2	31.31	27.98	48.67	43.78
Dissolved Oxygen		6.73	4.4	0.51	0.03	0.04	0.77
EH		262.36	244.4	194.26	83.66	153.84	168.92
Field pH		7.73	7.75	7.6	8.06	7.05	7.34
Field Specific Conductivity		397	424	509	293	708	697
Flow							
Flow							
Staff Gauge							
Water Temperature		6.1	6.5	7.9	7.3	9.2	9.9
Physical Parameters	mg/L						
Total Dissolved Solids		223	238	308	151	505	501
Total Suspended Solids		36	25	34	<10	<10	<10
Major Constituents - Commons Ions	mg/L						
Alkalinity as CaCO3		210	210	220	140	230	210
Calcium (DIS)		47	41	50	23	92	77
Chloride		<1	<1	4	<1	1	<1
Fluoride		0.2	0.6	0.3	0.2	0.5	0.8
Hardness as CaCO3		207	190	266	146	451	394
Magnesium (DIS)		22	21	34	22	54	49
Potassium (DIS)		<1	1	1	<1	4	5
Sodium (DIS)		3	17	3	3	5	11
Sulfate		12	22	64	16	197	204
Nutrients	mg/L						
Nitrate + Nitrite as N		0.15	0.11	<0.01	<0.01	<0.01	<0.01
Phosphorus (TOT)							
Total Nitrogen as N (Persulfate)							
Metals - Trace Constituents	Multiple Units						
Aluminum (DIS)		<0.009	0.011	0.011	<0.009	<0.009	<0.009
Antimony (DIS)		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Antimony (TRC)							
Arsenic (DIS)		<0.001	<0.001	0.001	0.002	0.014	0.059
Arsenic (TRC)							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	MW-6A	MW-6B	MW-7	MW-8	MW-9	PW-10
Water	Sample Date	6/20/2019	6/20/2019	6/20/2019	6/20/2019	6/19/2019	6/18/2019
	Sample Time	1:35:00 PM	2:10:00 PM	2:40:00 PM	3:45:00 PM	5:00:00 PM	3:30:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19060562-003	H19060562-004	H19060562-005	H19060562-006	H19060528-014	H19060528-009
	Sample Number	BBC-1906-223	BBC-1906-224	BBC-1906-225	BBC-1906-226	BBC-1906-213	BBC-1906-208
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Barium (DIS)	0.164	0.094	0.04	0.077	0.014	0.036
	Barium (TRC)						
	Beryllium (DIS)	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
	Beryllium (TRC)						
	Cadmium (DIS)	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
	Cadmium (TRC)						
	Chromium (DIS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Chromium (TRC)						
	Cobalt (DIS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Cobalt (TRC)						
	Copper (DIS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	Copper (TRC)						
	Iron (DIS)	<0.02	<0.02	0.05	0.09	0.9	0.39
	Iron (TRC)						
	Lead (DIS)	<0.0003	<0.0003	0.0005	<0.0003	0.0014	<0.0003
	Lead (TRC)						
	Manganese (DIS)	<0.005	<0.005	0.007	0.018	0.083	0.143
	Manganese (TRC)						
	Mercury (DIS)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	Mercury (TRC)						
	Molybdenum (DIS)	<0.002	<0.002	0.004	<0.002	<0.002	<0.002
	Molybdenum (TRC)						
	Nickel (DIS)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Nickel (TRC)						
	Selenium (DIS)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
	Selenium (TRC)						
	Silver (DIS)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
	Silver (TRC)						
	Strontium (DIS)	0.14	0.217	0.148	0.0787	1.34	13.2
	Strontium (TRC)						
	Thallium (DIS)	<0.0002	<0.0002	<0.0002	<0.0002	0.0027	<0.0002
	Thallium (TRC)						
	Uranium (DIS)	0.0006	0.0006	0.0019	0.0008	0.0009	0.0009

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	MW-6A	MW-6B	MW-7	MW-8	MW-9	PW-10
Water	Sample Date	6/20/2019	6/20/2019	6/20/2019	6/20/2019	6/19/2019	6/18/2019
	Sample Time	1:35:00 PM	2:10:00 PM	2:40:00 PM	3:45:00 PM	5:00:00 PM	3:30:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19060562-003	H19060562-004	H19060562-005	H19060562-006	H19060528-014	H19060528-009
	Sample Number	BBC-1906-223	BBC-1906-224	BBC-1906-225	BBC-1906-226	BBC-1906-213	BBC-1906-208
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Uranium (TRC)						
	Zinc (DIS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 7/31/2019 1:55:01 PM

Sample Type:	Station (Site)	PW-2	PW-3	PW-4	PW-8	PW-8	PW-8
Water	Sample Date	6/18/2019	6/20/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019
	Sample Time	12:20:00 PM	10:55:00 AM	5:00:00 PM	10:05:00 AM	10:30:00 AM	10:30:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19060528-008	H19060528-018	H19060528-013	H19060528-011	H19060528-012	H19060528-012
	Sample Number	BBC-1906-207	BBC-1906-217	BBC-1906-212	BBC-1906-210	BBC-1906-211	BBC-1906-211
	Remarks						DUPLICATE
Field Parameters	Multiple Units						
Depth To Water		49.29	10.1	50.36	39.76		39.76
Dissolved Oxygen		0.04	0.02	0.26	0.03		0.03
EH		80.57	70.66	104.84	139.44		139.44
Field pH		7.37	7.35	7.01	7.16		7.16
Field Specific Conductivity		517	684	604	508		508
Flow							
Flow							
Staff Gauge							
Water Temperature		8.4	6.7	8.6	8		8
Physical Parameters	mg/L						
Total Dissolved Solids		299	463	405	322	325	
Total Suspended Solids		<10	10	<10	<10	<10	
Major Constituents - Commons Ions	mg/L						
Alkalinity as CaCO3		230	250	160	180	180	
Calcium (DIS)		57	89	74	65	68	
Chloride		1	1	1	<1	<1	
Fluoride		0.8	0.4	0.3	0.4	0.4	
Hardness as CaCO3		283	419	340	294	308	
Magnesium (DIS)		34	48	38	32	33	
Potassium (DIS)		5	4	2	2	2	
Sodium (DIS)		3	5	4	3	3	
Sulfate		55	149	163	100	101	
Nutrients	mg/L						
Nitrate + Nitrite as N		0.01	0.02	0.02	<0.01	<0.01	
Phosphorus (TOT)							
Total Nitrogen as N (Persulfate)							
Metals - Trace Constituents	Multiple Units						
Aluminum (DIS)		0.011	<0.009	<0.009	<0.009	<0.009	
Antimony (DIS)		<0.0005	<0.0005	<0.0005	0.0009	0.0008	
Antimony (TRC)							
Arsenic (DIS)		0.005	0.006	0.06	0.013	0.013	
Arsenic (TRC)							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	PW-2	PW-3	PW-4	PW-8	PW-8	PW-8
Water	Sample Date	6/18/2019	6/20/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019
	Sample Time	12:20:00 PM	10:55:00 AM	5:00:00 PM	10:05:00 AM	10:30:00 AM	10:30:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19060528-008	H19060528-018	H19060528-013	H19060528-011	H19060528-012	H19060528-012
	Sample Number	BBC-1906-207	BBC-1906-217	BBC-1906-212	BBC-1906-210	BBC-1906-211	BBC-1906-211
	Remarks						DUPLICATE
Metals - Trace Constituents	Multiple Units						
	Barium (DIS)	0.033	0.012	0.041	0.037	0.037	
	Barium (TRC)						
	Beryllium (DIS)	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	
	Beryllium (TRC)						
	Cadmium (DIS)	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	
	Cadmium (TRC)						
	Chromium (DIS)	<0.01	<0.01	<0.01	<0.01	<0.01	
	Chromium (TRC)						
	Cobalt (DIS)	<0.01	<0.01	<0.01	<0.01	<0.01	
	Cobalt (TRC)						
	Copper (DIS)	<0.002	<0.002	<0.002	<0.002	<0.002	
	Copper (TRC)						
	Iron (DIS)	3.28	5.9	11	0.87	0.89	
	Iron (TRC)						
	Lead (DIS)	<0.0003	<0.0003	<0.0003	0.0077	0.0076	
	Lead (TRC)						
	Manganese (DIS)	0.059	0.047	0.142	0.1	0.099	
	Manganese (TRC)						
	Mercury (DIS)	<0.005	<0.005	<0.005	<0.005	<0.005	
	Mercury (TRC)						
	Molybdenum (DIS)	<0.002	<0.002	<0.002	<0.002	<0.002	
	Molybdenum (TRC)						
	Nickel (DIS)	<0.001	<0.001	0.005 D	<0.001	<0.001	
	Nickel (TRC)						
	Selenium (DIS)	<0.0002	0.0008	<0.0002	<0.0002	<0.0002	
	Selenium (TRC)						
	Silver (DIS)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
	Silver (TRC)						
	Strontium (DIS)	0.0846	0.331	9.62	0.745	0.755	
	Strontium (TRC)						
	Thallium (DIS)	<0.0002	<0.0002	0.0005	0.0026	0.0026	
	Thallium (TRC)						
	Uranium (DIS)	0.0003	0.0013	0.0012	0.001	0.001	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	PW-2	PW-3	PW-4	PW-8	PW-8	PW-8
Water	Sample Date	6/18/2019	6/20/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019
	Sample Time	12:20:00 PM	10:55:00 AM	5:00:00 PM	10:05:00 AM	10:30:00 AM	10:30:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19060528-008	H19060528-018	H19060528-013	H19060528-011	H19060528-012	H19060528-012
	Sample Number	BBC-1906-207	BBC-1906-217	BBC-1906-212	BBC-1906-210	BBC-1906-211	BBC-1906-211
	Remarks						DUPLICATE
Metals - Trace Constituents	Multiple Units						
	Uranium (TRC)						
	Zinc (DIS)	<0.002	<0.002	0.005	<0.002	<0.002	
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 7/31/2019 1:55:01 PM

Sample Type:	Station (Site)	PW-9R	INSATE BLANK	SC15-184	SC15-185	SC15-194	SC15-198
Water	Sample Date	6/18/2019	6/21/2019	6/17/2019	6/18/2019	6/18/2019	6/18/2019
	Sample Time	6:30:00 PM	12:50:00 PM	5:50:00 PM	10:40:00 AM	11:50:00 AM	9:00:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19060528-010	H19060562-013	H19060528-004	H19060528-006	H19060528-007	H19060528-005
	Sample Number	BBC-1906-209	BBC-1906-233	BBC-1906-203	BBC-1906-205	BBC-1906-206	BBC-1906-204
	Remarks						

Field Parameters	Multiple Units					
Depth To Water	45.69		NM	24.18	18.22	34.64
Dissolved Oxygen	0.02		7.32	4.5	0.42	6.94
EH	147.72		507.88	479.88	240.79	464.96
Field pH	7.1		7.93	7.84	7.76	7.71
Field Specific Conductivity	751		365	395	379	421
Flow						
Flow						
Staff Gauge						
Water Temperature	8.7		6.6	6.6	7.7	6.7
Physical Parameters	mg/L					
Total Dissolved Solids	544	<10	194	217	207	231
Total Suspended Solids	<10	<10	<10	<10	<10	<10
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	210	<4	180	200	160	210
Calcium (DIS)	87	<1	41	47	44	48
Chloride	1	<1	<1	<1	<1	2
Fluoride	0.6	<0.1	0.2	0.1	0.3	0.1
Hardness as CaCO3	441	<1	206	208	211	227
Magnesium (DIS)	54	<1	25	22	25	26
Potassium (DIS)	3	<1	<1	2	<1	<1
Sodium (DIS)	13	<1	2	4	2	3
Sulfate	244	<1	15	12	32	8
Nutrients	mg/L					
Nitrate + Nitrite as N	<0.01	<0.01	0.28	0.25	<0.01	0.56
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009
Antimony (DIS)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Antimony (TRC)						
Arsenic (DIS)	0.086	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	PW-9	RINSATE BLANK	SC15-184	SC15-185	SC15-194	SC15-198
Water	Sample Date	6/18/2019	6/21/2019	6/17/2019	6/18/2019	6/18/2019	6/18/2019
	Sample Time	6:30:00 PM	12:50:00 PM	5:50:00 PM	10:40:00 AM	11:50:00 AM	9:00:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19060528-010	H19060562-013	H19060528-004	H19060528-006	H19060528-007	H19060528-005
	Sample Number	BBC-1906-209	BBC-1906-233	BBC-1906-203	BBC-1906-205	BBC-1906-206	BBC-1906-204
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Barium (DIS)	0.012	<0.003	0.086	0.065	0.034	0.307
	Barium (TRC)						
	Beryllium (DIS)	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
	Beryllium (TRC)						
	Cadmium (DIS)	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
	Cadmium (TRC)						
	Chromium (DIS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Chromium (TRC)						
	Cobalt (DIS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Cobalt (TRC)						
	Copper (DIS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	Copper (TRC)						
	Iron (DIS)	2.18	<0.02	<0.02	<0.02	0.03	<0.02
	Iron (TRC)						
	Lead (DIS)	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
	Lead (TRC)						
	Manganese (DIS)	0.04	<0.005	<0.005	<0.005	<0.005	<0.005
	Manganese (TRC)						
	Mercury (DIS)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	Mercury (TRC)						
	Molybdenum (DIS)	<0.002	<0.002	<0.002	0.004	<0.002	<0.002
	Molybdenum (TRC)						
	Nickel (DIS)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Nickel (TRC)						
	Selenium (DIS)	<0.0002	<0.0002	0.0011	<0.0002	<0.0002	0.0003
	Selenium (TRC)						
	Silver (DIS)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
	Silver (TRC)						
	Strontium (DIS)	9.29	<0.0002	0.116	0.234	0.0678	0.098
	Strontium (TRC)						
	Thallium (DIS)	0.0009	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
	Thallium (TRC)						
	Uranium (DIS)	0.0014	<0.0002	0.001	0.003	0.0008	0.0007

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	PW-9R	INSATE BLANK	SC15-184	SC15-185	SC15-194	SC15-198
Water	Sample Date	6/18/2019	6/21/2019	6/17/2019	6/18/2019	6/18/2019	6/18/2019
	Sample Time	6:30:00 PM	12:50:00 PM	5:50:00 PM	10:40:00 AM	11:50:00 AM	9:00:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19060528-010	H19060562-013	H19060528-004	H19060528-006	H19060528-007	H19060528-005
	Sample Number	BBC-1906-209	BBC-1906-233	BBC-1906-203	BBC-1906-205	BBC-1906-206	BBC-1906-204
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Uranium (TRC)						
	Zinc (DIS)	<0.002	<0.002	0.013	<0.002	<0.002	0.006
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 7/31/2019 1:55:01 PM

Sample Type:	Station (Site)	SP-10	SP-11	SP-12	SP-3	SP-4	SP-6
Water	Sample Date	6/18/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019
	Sample Time	4:30:00 PM	11:10:00 AM	3:55:00 PM	1:45:00 PM	2:40:00 PM	2:30:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19060535-001	H19060535-002	H19060535-008	H19060535-005	H19060535-007	H19060535-006
	Sample Number	BBC-1906-108	BBC-1906-112	BBC-1906-124	BBC-1906-118	BBC-1906-121	BBC-1906-120
	Remarks						

Field Parameters	Multiple Units					
Depth To Water						
Dissolved Oxygen	7.73	6.89	6.07	9.07	9.1	9.2
EH						
Field pH	7.69	7.27	7.71	7.26	7.7	7.67
Field Specific Conductivity	395	192	400	129	422	188
Flow						
Flow	25.13	NM	NM	2.6	25.13	3.36
Staff Gauge						
Water Temperature	6.2	6.5	6.8	7.3	7.2	7.2
Physical Parameters	mg/L					
Total Dissolved Solids	216	127	230	118	241	164
Total Suspended Solids	<10	<10	<10	<10	<10	<10
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	200	92	180	54	190	130
Calcium (DIS)	52	23	47	17	47	33
Chloride	<1	<1	7	<1	<1	<1
Fluoride	0.1	0.1	0.2	0.1	0.2	0.1
Hardness as CaCO3	204	90	200	58	216	133
Magnesium (DIS)	18	8	20	4	24	12
Potassium (DIS)	<1	1	1	2	2	<1
Sodium (DIS)	2	3	2	2	2	2
Sulfate	12	7	19	6	33	10
Nutrients	mg/L					
Nitrate + Nitrite as N	0.14	0.25	0.33	0.17	0.3	0.41
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009	0.079	<0.009	0.198	0.01	<0.009
Antimony (DIS)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Antimony (TRC)						
Arsenic (DIS)	<0.001	0.007	<0.001	0.002	<0.001	<0.001
Arsenic (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-10	SP-11	SP-12	SP-3	SP-4	SP-6
Water	Sample Date	6/18/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019
	Sample Time	4:30:00 PM	11:10:00 AM	3:55:00 PM	1:45:00 PM	2:40:00 PM	2:30:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19060535-001	H19060535-002	H19060535-008	H19060535-005	H19060535-007	H19060535-006
	Sample Number	BBC-1906-108	BBC-1906-112	BBC-1906-124	BBC-1906-118	BBC-1906-121	BBC-1906-120
	Remarks						

Metals - Trace Constituents	Multiple Units					
Barium (DIS)	0.05	0.303	0.157	0.229	0.109	0.192
Barium (TRC)						
Beryllium (DIS)	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Beryllium (TRC)						
Cadmium (DIS)	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Cadmium (TRC)						
Chromium (DIS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (TRC)						
Cobalt (DIS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt (TRC)						
Copper (DIS)	<0.002	<0.002	<0.002	0.003	<0.002	<0.002
Copper (TRC)						
Iron (DIS)	<0.02	0.04	<0.02	0.45	0.03	<0.02
Iron (TRC)						
Lead (DIS)	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Lead (TRC)						
Manganese (DIS)	<0.005	<0.005	<0.005	<0.005	0.007	<0.005
Manganese (TRC)						
Mercury (DIS)	<0.005	<0.005	<0.005	0.009	<0.005	<0.005
Mercury (TRC)						
Molybdenum (DIS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Molybdenum (TRC)						
Nickel (DIS)	<0.001	<0.001	<0.001	0.002	<0.001	<0.001
Nickel (TRC)						
Selenium (DIS)	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002
Selenium (TRC)						
Silver (DIS)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Silver (TRC)						
Strontium (DIS)	0.109	0.104	0.0968	0.0546	0.0704	0.0722
Strontium (TRC)						
Thallium (DIS)	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	0.0005
Thallium (TRC)						
Uranium (DIS)	0.0007	0.0005	0.0006	<0.0002	0.0005	0.0004

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-10	SP-11	SP-12	SP-3	SP-4	SP-6
Water	Sample Date	6/18/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019
	Sample Time	4:30:00 PM	11:10:00 AM	3:55:00 PM	1:45:00 PM	2:40:00 PM	2:30:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19060535-001	H19060535-002	H19060535-008	H19060535-005	H19060535-007	H19060535-006
	Sample Number	BBC-1906-108	BBC-1906-112	BBC-1906-124	BBC-1906-118	BBC-1906-121	BBC-1906-120
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Uranium (TRC)						
	Zinc (DIS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-7	SW-1	SW-10	SW-11	SW-14	SW-17
Water	Sample Date	6/19/2019	6/19/2019	6/18/2019	6/18/2019	6/19/2019	6/19/2019
	Sample Time	4:40:00 PM	8:45:00 AM	3:50:00 PM	1:40:00 PM	6:15:00 PM	3:10:00 PM
	Lab	Energy Labs	Energy Labs	Hydro	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19060535-009	H19060536-002	z	H19060536-001	H19060536-007	H19060536-005
	Sample Number	BBC-1906-125	BBC-1906-109	BBC-1906-107	BBC-1906-103	BBC-1906-126	BBC-1906-122
	Remarks						

Field Parameters	Multiple Units					
Depth To Water						
Dissolved Oxygen	2.7	9.83	7.63	8.31	8.22	8.46
EH						
Field pH	7.24	8.24	8.25	8.27	7.99	8.14
Field Specific Conductivity	329	286	414	392	392	458
Flow		91.93	1.66	2.68	6.53	0.75
Flow	50.27					
Staff Gauge		1.4		0.64	0.8	
Water Temperature	7	7.8	13.5	10.1	11.7	13.9
Physical Parameters	mg/L					
Total Dissolved Solids	196	186 D		226 D	266 D	314 D
Total Suspended Solids	<10	9		10	5	6
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	160	150		190	190	190
Calcium (DIS)	40	42		50	53	56
Chloride	2	1		<1	4	14
Fluoride	0.3	<0.1		0.1	0.1	0.2
Hardness as CaCO3	156	148		208	203	234
Magnesium (DIS)	13	10		20	17	23
Potassium (DIS)	3	1		1	1	1
Sodium (DIS)	5	2		2	2	3
Sulfate	12	5		16	8	23
Nutrients	mg/L					
Nitrate + Nitrite as N	0.33	0.01		0.09	0.05	0.03
Phosphorus (TOT)		0.018 J		0.03 J	0.011 J	0.025 J
Total Nitrogen as N (Persulfate)		0.17		0.26	0.2	0.49
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009	0.015		<0.009	<0.009	<0.009
Antimony (DIS)	<0.0005					
Antimony (TRC)		<0.0005		<0.0005	<0.0005	<0.0005
Arsenic (DIS)	0.004					
Arsenic (TRC)		<0.001		<0.001	<0.001	<0.001

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-7	SW-1	SW-10	SW-11	SW-14	SW-17
Water	Sample Date	6/19/2019	6/19/2019	6/18/2019	6/18/2019	6/19/2019	6/19/2019
	Sample Time	4:40:00 PM	8:45:00 AM	3:50:00 PM	1:40:00 PM	6:15:00 PM	3:10:00 PM
	Lab	Energy Labs	Energy Labs	Hydro	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19060535-009	H19060536-002	z	H19060536-001	H19060536-007	H19060536-005
	Sample Number	BBC-1906-125	BBC-1906-109	BBC-1906-107	BBC-1906-103	BBC-1906-126	BBC-1906-122
	Remarks						

Metals - Trace Constituents	Multiple Units				
Barium (DIS)	0.118				
Barium (TRC)		0.095	0.095	0.112	0.152
Beryllium (DIS)	<0.0008				
Beryllium (TRC)		<0.0008	<0.0008	<0.0008	<0.0008
Cadmium (DIS)	<0.00003				
Cadmium (TRC)		<0.00003	<0.00003	<0.00003	<0.00003
Chromium (DIS)	<0.01				
Chromium (TRC)		<0.01	<0.01	<0.01	<0.01
Cobalt (DIS)	<0.01				
Cobalt (TRC)		<0.01	<0.01	<0.01	<0.01
Copper (DIS)	<0.002				
Copper (TRC)		<0.002	<0.002	<0.002	<0.002
Iron (DIS)	<0.02				
Iron (TRC)		0.26	0.44	0.11	0.31
Lead (DIS)	<0.0003				
Lead (TRC)		<0.0003	0.0004	<0.0003	<0.0003
Manganese (DIS)	<0.005				
Manganese (TRC)		0.017	0.027	0.007	0.032
Mercury (DIS)	<0.005				
Mercury (TRC)		<0.005	<0.005	<0.005	0.007
Molybdenum (DIS)	<0.002				
Molybdenum (TRC)		<0.002	<0.002	<0.002	<0.002
Nickel (DIS)	<0.001				
Nickel (TRC)		<0.001	<0.001	<0.001	<0.001
Selenium (DIS)	0.0003				
Selenium (TRC)		<0.0002	<0.0002	<0.0002	<0.0002
Silver (DIS)	<0.0002				
Silver (TRC)		<0.0002	<0.0002	<0.0002	<0.0002
Strontium (DIS)	0.171				
Strontium (TRC)		0.124 L	0.178 L	0.127 L	0.145 L
Thallium (DIS)	0.001				
Thallium (TRC)		<0.0002	<0.0002	<0.0002	<0.0002
Uranium (DIS)	0.0009				

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Sample Type:	Station (Site)	SP-7	SW-1	SW-10	SW-11	SW-14	SW-17
Water	Sample Date	6/19/2019	6/19/2019	6/18/2019	6/18/2019	6/19/2019	6/19/2019
	Sample Time	4:40:00 PM	8:45:00 AM	3:50:00 PM	1:40:00 PM	6:15:00 PM	3:10:00 PM
	Lab	Energy Labs	Energy Labs	Hydro	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19060535-009	H19060536-002	z	H19060536-001	H19060536-007	H19060536-005
	Sample Number	BBC-1906-125	BBC-1906-109	BBC-1906-107	BBC-1906-103	BBC-1906-126	BBC-1906-122
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Uranium (TRC)		0.0003		0.0009	0.0005	0.0008
	Zinc (DIS)	<0.002					
	Zinc (TRC)		0.003 J		0.004 J	<0.002	0.004 J

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-18	SW-19	SW-2	SW-3	SW-4	SW-5
Water	Sample Date	6/20/2019	6/18/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019
	Sample Time	11:45:00 AM	3:35:00 PM	9:30:00 AM	3:25:00 PM	12:30:00 PM	12:50:00 PM
	Lab	Hydro	Hydro	Energy Labs	Energy Labs	Hydro	Hydro
	Lab Number	z	z	H19060536-003	H19060536-006	z	z
	Sample Number	BBC-1906-131	BBC-1906-106	BBC-1906-110	BBC-1906-123	BBC-1906-114	BBC-1906-115
	Remarks						

Field Parameters	Multiple Units					
Depth To Water						
Dissolved Oxygen		7.99	9.96	9.28	7.7	
EH						
Field pH		8.23	8.3	8.46	7.94	
Field Specific Conductivity		381	280	379	376	
Flow	NF-DRY	0.79	71.76	0.089	0.127	NF
Flow						
Staff Gauge			1.05			
Water Temperature		12.4	7.3	11	10.1	
Physical Parameters	mg/L					
Total Dissolved Solids			183 D	247 D		
Total Suspended Solids			8	5		
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3			140	180		
Calcium (DIS)			41	44		
Chloride			1	2		
Fluoride			<0.1	0.2		
Hardness as CaCO3			143	198		
Magnesium (DIS)			10	21		
Potassium (DIS)			1	<1		
Sodium (DIS)			2	2		
Sulfate			5	17		
Nutrients	mg/L					
Nitrate + Nitrite as N			<0.01	<0.01		
Phosphorus (TOT)			0.013 J	0.009 J		
Total Nitrogen as N (Persulfate)			0.12	0.1		
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)			0.012	<0.009		
Antimony (DIS)						
Antimony (TRC)			<0.0005	<0.0005		
Arsenic (DIS)						
Arsenic (TRC)			<0.001	<0.001		

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-18	SW-19	SW-2	SW-3	SW-4	SW-5
Water	Sample Date	6/20/2019	6/18/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019
	Sample Time	11:45:00 AM	3:35:00 PM	9:30:00 AM	3:25:00 PM	12:30:00 PM	12:50:00 PM
	Lab	Hydro	Hydro	Energy Labs	Energy Labs	Hydro	Hydro
	Lab Number	z	z	H19060536-003	H19060536-006	z	z
	Sample Number	BBC-1906-131	BBC-1906-106	BBC-1906-110	BBC-1906-123	BBC-1906-114	BBC-1906-115
	Remarks						
Metals - Trace Constituents	Multiple Units						
Barium (DIS)							
Barium (TRC)				0.078	0.146		
Beryllium (DIS)							
Beryllium (TRC)				<0.0008	<0.0008		
Cadmium (DIS)							
Cadmium (TRC)				<0.00003	<0.00003		
Chromium (DIS)							
Chromium (TRC)				<0.01	<0.01		
Cobalt (DIS)							
Cobalt (TRC)				<0.01	<0.01		
Copper (DIS)							
Copper (TRC)				<0.002	<0.002		
Iron (DIS)							
Iron (TRC)				0.23	0.07		
Lead (DIS)							
Lead (TRC)				<0.0003	<0.0003		
Manganese (DIS)							
Manganese (TRC)				0.011	<0.005		
Mercury (DIS)							
Mercury (TRC)				<0.005	<0.005		
Molybdenum (DIS)							
Molybdenum (TRC)				<0.002	<0.002		
Nickel (DIS)							
Nickel (TRC)				<0.001	<0.001		
Selenium (DIS)							
Selenium (TRC)				<0.0002	<0.0002		
Silver (DIS)							
Silver (TRC)				<0.0002	<0.0002		
Strontium (DIS)							
Strontium (TRC)				0.126 L	0.11 L		
Thallium (DIS)							
Thallium (TRC)				<0.0002	<0.0002		
Uranium (DIS)							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-18	SW-19	SW-2	SW-3	SW-4	SW-5
Water	Sample Date	6/20/2019	6/18/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019
	Sample Time	11:45:00 AM	3:35:00 PM	9:30:00 AM	3:25:00 PM	12:30:00 PM	12:50:00 PM
	Lab	Hydro	Hydro	Energy Labs	Energy Labs	Hydro	Hydro
	Lab Number	z	z	H19060536-003	H19060536-006	z	z
	Sample Number	BBC-1906-131	BBC-1906-106	BBC-1906-110	BBC-1906-123	BBC-1906-114	BBC-1906-115
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Uranium (TRC)			0.0003	0.0006		
	Zinc (DIS)						
	Zinc (TRC)			0.002 J	0.002 J		

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-6	SW-6	SW-7	SW-7	SW-8	SW-9
Water	Sample Date	6/20/2019	6/20/2019	6/20/2019	6/20/2019	6/20/2019	6/18/2019
	Sample Time	11:15:00 AM	11:30:00 AM	12:25:00 PM	12:50:00 PM	1:15:00 PM	2:25:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro
	Lab Number	H19060536-009	H19060536-010	H19060535-012	H19060535-013	z	z
	Sample Number	BBC-1906-129	BBC-1906-130	BBC-1906-133	BBC-1906-134	BBC-1906-135	BBC-1906-104
	Remarks		DUPLICATE		DUPLICATE		
Field Parameters	Multiple Units						
Depth To Water							
Dissolved Oxygen		8.89		8.03		8.66	7.88
EH							
Field pH		8.05		7.76		7.95	8.14
Field Specific Conductivity		379		406		380	418
Flow		0.63				1.45	2.32
Flow				9.43			
Staff Gauge						0.28	
Water Temperature		7.5		8.4		9.1	11.1
Physical Parameters	mg/L						
Total Dissolved Solids		246 D	252 D	228	229		
Total Suspended Solids		13	13	<10	<10		
Major Constituents - Commons Ions	mg/L						
Alkalinity as CaCO3		190	190	210	210		
Calcium (DIS)		49	49	60	59		
Chloride		<1	<1	<1	<1		
Fluoride		0.1	0.1	<0.1	<0.1		
Hardness as CaCO3		205	205	227	221		
Magnesium (DIS)		20	20	19	18		
Potassium (DIS)		<1	<1	<1	<1		
Sodium (DIS)		3	3	2	2		
Sulfate		10	10	10	10		
Nutrients	mg/L						
Nitrate + Nitrite as N		0.03	0.03	0.06	0.06		
Phosphorus (TOT)		0.018 J	0.025 J				
Total Nitrogen as N (Persulfate)		0.2	0.19				
Metals - Trace Constituents	Multiple Units						
Aluminum (DIS)		<0.009	<0.009	<0.009	<0.009		
Antimony (DIS)				<0.0005	<0.0005		
Antimony (TRC)		<0.0005	<0.0005				
Arsenic (DIS)				<0.001	<0.001		
Arsenic (TRC)		<0.001	<0.001				

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-6	SW-6	SW-7	SW-7	SW-8	SW-9
Water	Sample Date	6/20/2019	6/20/2019	6/20/2019	6/20/2019	6/20/2019	6/18/2019
	Sample Time	11:15:00 AM	11:30:00 AM	12:25:00 PM	12:50:00 PM	1:15:00 PM	2:25:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro
	Lab Number	H19060536-009	H19060536-010	H19060535-012	H19060535-013	z	z
	Sample Number	BBC-1906-129	BBC-1906-130	BBC-1906-133	BBC-1906-134	BBC-1906-135	BBC-1906-104
	Remarks		DUPLICATE		DUPLICATE		
Metals - Trace Constituents	Multiple Units						
	Barium (DIS)			0.05	0.05		
	Barium (TRC)	0.11	0.111				
	Beryllium (DIS)			<0.0008	<0.0008		
	Beryllium (TRC)	<0.0008	<0.0008				
	Cadmium (DIS)			<0.00003	<0.00003		
	Cadmium (TRC)	<0.00003	<0.00003				
	Chromium (DIS)			<0.01	<0.01		
	Chromium (TRC)	<0.01	<0.01				
	Cobalt (DIS)			<0.01	<0.01		
	Cobalt (TRC)	<0.01	<0.01				
	Copper (DIS)			<0.002	<0.002		
	Copper (TRC)	<0.002	<0.002				
	Iron (DIS)			<0.02	<0.02		
	Iron (TRC)	0.64	0.63				
	Lead (DIS)			<0.0003	<0.0003		
	Lead (TRC)	0.0003	0.0003				
	Manganese (DIS)			<0.005	<0.005		
	Manganese (TRC)	0.043	0.046				
	Mercury (DIS)			<0.005	<0.005		
	Mercury (TRC)	<0.005	<0.005				
	Molybdenum (DIS)			<0.002	<0.002		
	Molybdenum (TRC)	<0.002	<0.002				
	Nickel (DIS)			<0.001	<0.001		
	Nickel (TRC)	<0.001	<0.001				
	Selenium (DIS)			<0.0002	<0.0002		
	Selenium (TRC)	<0.0002	<0.0002				
	Silver (DIS)			<0.0002	<0.0002		
	Silver (TRC)	<0.0002	<0.0002				
	Strontium (DIS)			0.132	0.133		
	Strontium (TRC)	0.154 L	0.156 L				
	Thallium (DIS)			<0.0002	<0.0002		
	Thallium (TRC)	<0.0002	<0.0002				
	Uranium (DIS)			0.0006	0.0006		

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-6	SW-6	SW-7	SW-7	SW-8	SW-9
Water	Sample Date	6/20/2019	6/20/2019	6/20/2019	6/20/2019	6/20/2019	6/18/2019
	Sample Time	11:15:00 AM	11:30:00 AM	12:25:00 PM	12:50:00 PM	1:15:00 PM	2:25:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro
	Lab Number	H19060536-009	H19060536-010	H19060535-012	H19060535-013	z	z
	Sample Number	BBC-1906-129	BBC-1906-130	BBC-1906-133	BBC-1906-134	BBC-1906-135	BBC-1906-104
	Remarks		DUPLICATE		DUPLICATE		
Metals - Trace Constituents	Multiple Units						
	Uranium (TRC)	0.0006	0.0006				
	Zinc (DIS)			<0.002	<0.002		
	Zinc (TRC)	0.006 J	0.003 J				

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	USGS-SC1
Water	Sample Date	6/19/2019
	Sample Time	10:30:00 AM
	Lab	Energy Labs
	Lab Number	H19060536-004
	Sample Number	BBC-1906-111
	Remarks	

Field Parameters	Multiple Units
Depth To Water	
Dissolved Oxygen	9.98
EH	
Field pH	8.35
Field Specific Conductivity	306
Flow	62.28
Flow	
Staff Gauge	
Water Temperature	6.9
Physical Parameters	mg/L
Total Dissolved Solids	209 D
Total Suspended Solids	10
Major Constituents - Commons Ions	mg/L
Alkalinity as CaCO3	150
Calcium (DIS)	45
Chloride	1
Fluoride	<0.1
Hardness as CaCO3	158
Magnesium (DIS)	11
Potassium (DIS)	1
Sodium (DIS)	2
Sulfate	5
Nutrients	mg/L
Nitrate + Nitrite as N	0.01
Phosphorus (TOT)	0.009 J
Total Nitrogen as N (Persulfate)	0.1
Metals - Trace Constituents	Multiple Units
Aluminum (DIS)	<0.009
Antimony (DIS)	
Antimony (TRC)	<0.0005
Arsenic (DIS)	
Arsenic (TRC)	<0.001

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	USGS-SC1
Water	Sample Date	6/19/2019
	Sample Time	10:30:00 AM
	Lab	Energy Labs
	Lab Number	H19060536-004
	Sample Number	BBC-1906-111
	Remarks	

Metals - Trace Constituents	Multiple Units
Barium (DIS)	
Barium (TRC)	0.068
Beryllium (DIS)	
Beryllium (TRC)	<0.0008
Cadmium (DIS)	
Cadmium (TRC)	<0.00003
Chromium (DIS)	
Chromium (TRC)	<0.01
Cobalt (DIS)	
Cobalt (TRC)	<0.01
Copper (DIS)	
Copper (TRC)	<0.002
Iron (DIS)	
Iron (TRC)	0.16
Lead (DIS)	
Lead (TRC)	<0.0003
Manganese (DIS)	
Manganese (TRC)	0.008
Mercury (DIS)	
Mercury (TRC)	<0.005
Molybdenum (DIS)	
Molybdenum (TRC)	<0.002
Nickel (DIS)	
Nickel (TRC)	<0.001
Selenium (DIS)	
Selenium (TRC)	<0.0002
Silver (DIS)	
Silver (TRC)	<0.0002
Strontium (DIS)	
Strontium (TRC)	0.141 L
Thallium (DIS)	
Thallium (TRC)	<0.0002
Uranium (DIS)	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	USGS-SC1
Water	Sample Date	6/19/2019
	Sample Time	10:30:00 AM
	Lab	Energy Labs
	Lab Number	H19060536-004
	Sample Number	BBC-1906-111
	Remarks	

Metals - Trace Constituents	Multiple Units
Uranium (TRC)	0.0003
Zinc (DIS)	
Zinc (TRC)	0.002 J

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

QUALITY CONTROL / QUALITY ASSURANCE
DATA VERIFICATION REPORT

BLACK BUTTE COPPER
WATER RESOURCE MONITORING

JULY 2019

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SEPTEMBER 2019

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APPENDIX 2: DATABASE SUMMARY REPORT

GLOSSARY OF TERMS

CCB ..... Continuing Calibration Blank

CCV ..... Continuing Calibration Verification

CLP ..... Contract Laboratory Program

CRDL..... Contract Required Detection Limit

DIé é é é é Deionized Water

FAA ..... Flame Atomic Absorption

GFAA..... Graphite Furnace Atomic Absorption

HGAA ..... Hydride Generation Atomic Absorption

ICB..... Initial Calibration Blank

ICP ..... Inductively Coupled Plasma

ICV ..... Initial Calibration Verification

IDL..... Instrument Detection Limit

LCS ..... Laboratory Control Sample

MSA..... Method of Standard Additions

PB ..... Preparation Blank

PRDL ..... Project Required Detection Limit

QAPP ..... Quality Assurance Project Plan

QC..... Quality Control

RPD..... Relative Percent Difference

RSD..... Relative Standard Deviation

SOW..... Statement of Work

TDS..... Total Dissolved Solids

DATA VALIDATION REPORT

1. INTRODUCTION

This validation applies to 30 samples collected for the Black Butte Tintina surface water and groundwater monitoring program. All sampling occurred in July 2019. All samples were submitted to Energy Laboratories in Helena, Montana and were assigned Laboratory IDs: H19070585 and H19070583. The total number of samples included: 18 groundwater and surface water samples including 2 field duplicates, and 2 field deionized (DI and Rinsate) blanks and 8 field site observations.

- Validation procedures used are generally consistent with:
  (Check all that apply)
  _X_ EPA CLP National Functional Guidelines for Inorganics Data Review
  _X_ EPA CLP National Functional Guidelines for Organic Data Review
  _X_ Montana Department of Environmental Quality, Data Validation Guidelines for Evaluating Analytical Data, Hydrometrics, September 2010

2. DELIVERABLES

- All laboratory document deliverables were present as specified in the CLP-Statement of Work and/or the project contract
  _X_ Yes
  ___No

- All documentation of field procedures was provided as required
  _X_ Yes
  ___No

3. FIELD QUALITY CONTROL SAMPLES

- Field blanks
  Please note that the highest blank value associated with any particular analyte is the blank value used for the flagging process.
  DI, trip, rinsate, or any other field blanks have been carried out at the proper frequency
  _X_ Yes
  ___No

  Reported results on the field blanks are less than the contract required detection limits (CRDL) or the project required detection limits (PRDL) if project detection limits have been specified
  _X_ Yes
  ___No

  Field duplicates have been collected at the proper frequency
  _X_ Yes
  ___No

  Field duplicate relative percent differences (RPDs) were within the required control limits (25 percent or less for water matrix and 50 percent or less for soil matrix)
  ___Yes
  _X_ No ï see following table

Date	Site Code	Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Number of Flags
7/25/2019	SW-17	Total Suspended Solids	19	12	20
		Aluminum	0.021	<0.009	20

J ï Duplicate exceeded QA/QC comparison control limits.

- **NOTES**: It should be noted that the above listed analysis results exceeded the reporting limits and results were confirmed by duplicate analysis from the laboratory.

4. LABORATORY PROCEDURES

- Laboratory Case Narrative Notes any non conformance issues with the analytical data
  ___Yes
  ___No
  _X_NA

- Samples were received by the laboratory at the proper temperature
  _X_Yes
  ___No

- Holding times met
  _X_Yes
  ___No

- Consistency with project requirements
  _X_Yes
  ___No

- Sample Conditions met at Check-in
  _X_Yesï see following notes
  ___No

  NOTES: In the Energy Laboratory sample check-in receipt the following was noted:
  H19070585- Sample time on metals bottle in sample set BBC-1907-108 is missing. The Sample time from the chain of custody was used.

- Reporting units appropriate for the associated sample matrix and methods of analysis
  _X_Yes
  ___No

- Project specified methods were used
  _X_Yesï see following list of methods used
  ___No

  NOTES: It should be noted that parameters were analyzed using different methods than requested; however, all methods used by the laboratory are comparable. The following methods were used during analyses: A2540D, A2540C, A2320B, E300.0, A4500-F C, A2340B, E353.2, A4500-N C, E365.1, E200.8, and E200.7.

- Detection Limits met project required detection limits (PRDL)
  _X_Yesï see following notes
  ___No

  NOTES: It should be noted that total dissolved solids and zinc had a reporting limit increases due to sample matrix interference (D). TDS had a limit of 10 mg/l used not the requested 4 mg/l. Strontium had the 0.0003 mg/l reporting limit was used in place of the requested 0.0002 mg/l; and zinc had a varying reporting limit as high as 0.02 mg/L not the requested 0.002 mg/L. However, values were flagged with an L to indicate that the lowest available reporting limit was used per method used for analysis. In addition, a reporting limit of 0.01 mg/l was used for nitrate + nitrite as n as replacement of the 0.003 mg/l requested.

5. INITIAL OR CONTINUING CALIBRATION VERIFICATION RESULTS

- Initial or Continuing Calibration Verification samples were within acceptable limits
  _X_ Yes
  ___ No

6. LABORATORY BLANKS

- **PREPARATION/METHOD BLANKS**

  Preparation/Method blanks were prepared and analyzed at the required frequency
  _X_ Yes
  ___ No

  All analytes in the preparation blank were less than the CRDL (or PRDL if a project detection limit has been specified)
  _X_ Yes
  ___ No

7. MATRIX SPIKE /MATRIX SPIKE DUPLICATES (MS/MSD)

- Matrix spike samples were analyzed at the proper frequency
  _X_ Yes
  ____ No

- Matrix spike recoveries were within control limits
  _X_ Yes
  ___ No

- Matrix spike RPDôs were within control limits
  _X_ Yes
  ____ No

- Matrix spike duplicate samples were analyzed at the proper frequency
  _X_ Yes
  ____ No

- Matrix spike duplicate RPDôs were within control limits
  _X_ Yes
  ____ No

- Matrix spike duplicate recoveries were within the laboratory specified control limits.
  _X_ Yes
  ___ No

8. LABORATORY CONTROL SAMPLES

- LCS Samples

  Laboratory Control Samples used the correct matrix and concentrations
  ___ Yes
  ___ No
  _X_ NA

Laboratory Control Samples were prepared and analyzed at the required frequency
___Yes
___No
_X_NA

All analytes in the laboratory control samples were less than the control limits specified
_X_Yes
____No

9. DATA QUALITY OBJECTIVES

- Project data quality objectives (DQOs) met

_X_Yes
___No

Accuracy

Accuracy for this project is the degree of agreement between an analytical measurement and a reference accepted as a true value. The accuracy of a measurement system can be affected by errors introduced by field contamination, sample preservation, sample handling, sample preparation and analytical techniques. Analysis of MS/MSD samples, laboratory control spikes (LCS) or blank spikes, surrogate standards and method blanks are typically used to calculate the percent recovery for evaluating accuracy. Accuracy for this sampling event was 100 percent.

Precision

Precision for this project is the degree of mutual agreement between individual measurements of the same property under similar conditions. Combined field and laboratory precision is evaluated by collecting and analyzing field duplicate and then calculating the variance between the samples, typically as a relative percent difference (RPD). Laboratory analytical precision is evaluated by analyzing matrix spike/matrix spike duplicate samples and using the results to calculate an RPD. The combined precision was 98 percent for this sampling event for both laboratory and field.

Representativeness

Representativeness for this project is the degree to which sample data accurately and precisely represent the characteristics of a population, and variations in a parameter at a sampling point or an environmental condition that they are intended to represent. Typically representative data will be obtained through careful selection of sampling locations and analytical parameters; proper collection and handling of samples and through use and consistent application of established field and laboratory procedures. Evaluation of field and laboratory blank samples for presence of contaminants can be useful in evaluating representativeness of sample results. Both laboratory and field representativeness for this sampling event was 100 percent.

Completeness

The target completeness for this project is the percent of the measurements valid (not rejected). Valid data are obtained when samples are collected and analyzed in accordance with quality control procedures outlined in the SAP, and when none of the QC criteria that affect data usability are exceeded. Once data validation is complete the number of useable sample results is divided by the total number of sample results planned for the investigation to determine the percent completeness. Completeness for this sampling event was 100 percent.

Comparability

Comparability is the expression of the confidence with which one data set can be compared with another. Comparability of data is achieved by consistently following standard field and laboratory procedures and by using standard measurement units in reporting analytical data. This criterion was met.

REFERENCES

Montana Department of Environmental Quality, Data Validation Guidelines for Evaluating Analytical Data (Updated August 5, 2010)

EPA, 2017a. National Functional Guidelines for Organic Superfund Methods Data Review. EPA-540-R-2017-002. Office of Superfund Remediation and Technology Innovation. January 2017.

EPA, 2017b. National Functional Guidelines for Inorganic Superfund Methods Data Review. EPA-540-R-2017-001. Office of Superfund Remediation and Technology Innovation. January 2017.

Hem, J.D., 1992. Study and Interpretation of the Chemical Characteristics of Natural Water, 3rd edition. US Geological Survey Water Supply Paper 2254.

APPENDIX 1

TABLES

TABLE 1.

DATA VALIDATION CODES AND DEFINITIONS

CODE	DEFINITION
J	-The associated numerical value is an estimated quantity because quality control criteria were not met.
B	- Blank contamination. Indicates possible high bias and / or false positive. The associated value is an estimate.
R	- Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis is necessary for verification.
A	- Anomalous data. No apparent explanation for discrepancy in data. (Not an EPA code.)

Table 2. Summary of Flagged Data

StationName	Sample Date	Field Sample Id	Lab Name	Lab Sample Id	Parameter Name	Sample Result	Reporting Units	Validation Flag	Exceedance Type
SP-10	7/24/2019	BBC-1907-106	Energy Labs	H19070585-001	Aluminum (DIS)	<0.009	mg/L	J	Duplicate Exceedance
SP-10	7/24/2019	BBC-1907-106	Energy Labs	H19070585-001	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance
SW-4	7/24/2019	BBC-1907-107	Energy Labs	H19070583-001	Aluminum (DIS)	<0.009	mg/L	J	Duplicate Exceedance
SW-4	7/24/2019	BBC-1907-107	Energy Labs	H19070583-001	Total Suspended Solids	8	mg/L	J	Duplicate Exceedance
DS-1	7/24/2019	BBC-1907-108	Energy Labs	H19070585-002	Aluminum (DIS)	<0.009	mg/L	J	Duplicate Exceedance
DS-1	7/24/2019	BBC-1907-108	Energy Labs	H19070585-002	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance
SP-5	7/24/2019	BBC-1907-109	Energy Labs	H19070585-003	Aluminum (DIS)	<0.009	mg/L	J	Duplicate Exceedance
SP-5	7/24/2019	BBC-1907-109	Energy Labs	H19070585-003	Total Suspended Solids	52	mg/L	J	Duplicate Exceedance
SW-3	7/24/2019	BBC-1907-110	Energy Labs	H19070583-002	Aluminum (DIS)	0.018	mg/L	J	Duplicate Exceedance
SW-3	7/24/2019	BBC-1907-110	Energy Labs	H19070583-002	Total Suspended Solids	6	mg/L	J	Duplicate Exceedance
DS-3	7/24/2019	BBC-1907-112	Energy Labs	H19070585-004	Aluminum (DIS)	1.41	mg/L	J	Duplicate Exceedance
DS-3	7/24/2019	BBC-1907-112	Energy Labs	H19070585-004	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance
DS-3	7/24/2019	BBC-1907-113	Energy Labs	H19070585-005	Aluminum (DIS)	1.44	mg/L	J	Duplicate Exceedance
DS-3	7/24/2019	BBC-1907-113	Energy Labs	H19070585-005	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance
SP-3	7/24/2019	BBC-1907-114	Energy Labs	H19070585-006	Aluminum (DIS)	0.396	mg/L	J	Duplicate Exceedance
SP-3	7/24/2019	BBC-1907-114	Energy Labs	H19070585-006	Total Suspended Solids	20	mg/L	J	Duplicate Exceedance
DS-4	7/24/2019	BBC-1907-115	Energy Labs	H19070585-007	Aluminum (DIS)	0.71	mg/L	J	Duplicate Exceedance
DS-4	7/24/2019	BBC-1907-115	Energy Labs	H19070585-007	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance
SP-6	7/25/2019	BBC-1907-117	Energy Labs	H19070585-008	Aluminum (DIS)	<0.009	mg/L	J	Duplicate Exceedance
SP-6	7/25/2019	BBC-1907-117	Energy Labs	H19070585-008	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance
SP-4	7/25/2019	BBC-1907-118	Energy Labs	H19070585-009	Aluminum (DIS)	<0.009	mg/L	J	Duplicate Exceedance
SP-4	7/25/2019	BBC-1907-118	Energy Labs	H19070585-009	Total Suspended Solids	10	mg/L	J	Duplicate Exceedance
SP-7	7/25/2019	BBC-1907-119	Energy Labs	H19070585-010	Aluminum (DIS)	<0.009	mg/L	J	Duplicate Exceedance
SP-7	7/25/2019	BBC-1907-119	Energy Labs	H19070585-010	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance
SP-12	7/25/2019	BBC-1907-120	Energy Labs	H19070585-011	Aluminum (DIS)	<0.009	mg/L	J	Duplicate Exceedance
SP-12	7/25/2019	BBC-1907-120	Energy Labs	H19070585-011	Total Suspended Solids	10	mg/L	J	Duplicate Exceedance
SP-11	7/25/2019	BBC-1907-121	Energy Labs	H19070585-012	Aluminum (DIS)	0.065	mg/L	J	Duplicate Exceedance
SP-11	7/25/2019	BBC-1907-121	Energy Labs	H19070585-012	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance
SW-1	7/25/2019	BBC-1907-122	Energy Labs	H19070583-003	Aluminum (DIS)	<0.009	mg/L	J	Duplicate Exceedance
SW-1	7/25/2019	BBC-1907-122	Energy Labs	H19070583-003	Total Suspended Solids	4	mg/L	J	Duplicate Exceedance
SW-17	7/25/2019	BBC-1907-123	Energy Labs	H19070583-004	Aluminum (DIS)	0.021	mg/L	J	Duplicate Exceedance
SW-17	7/25/2019	BBC-1907-123	Energy Labs	H19070583-004	Total Suspended Solids	19	mg/L	J	Duplicate Exceedance
SW-17	7/25/2019	BBC-1907-124	Energy Labs	H19070583-005	Aluminum (DIS)	<0.009	mg/L	J	Duplicate Exceedance
SW-17	7/25/2019	BBC-1907-124	Energy Labs	H19070583-005	Total Suspended Solids	12	mg/L	J	Duplicate Exceedance
SW-14	7/25/2019	BBC-1907-125	Energy Labs	H19070583-006	Aluminum (DIS)	0.021	mg/L	J	Duplicate Exceedance
SW-14	7/25/2019	BBC-1907-125	Energy Labs	H19070583-006	Total Suspended Solids	<4	mg/L	J	Duplicate Exceedance
SW-2	7/25/2019	BBC-1907-126	Energy Labs	H19070583-007	Aluminum (DIS)	<0.009	mg/L	J	Duplicate Exceedance
SW-2	7/25/2019	BBC-1907-126	Energy Labs	H19070583-007	Total Suspended Solids	<4	mg/L	J	Duplicate Exceedance
USGS-SC1	7/25/2019	BBC-1907-127	Energy Labs	H19070583-008	Aluminum (DIS)	<0.009	mg/L	J	Duplicate Exceedance
USGS-SC1	7/25/2019	BBC-1907-127	Energy Labs	H19070583-008	Total Suspended Solids	<4	mg/L	J	Duplicate Exceedance

Black Butte Mine Data Comparison Summary

Report Date: September 13, 2019

SAMPLE NO BBC-1907-129 | LAB NO: H19070585-013 | STATION: DI-Blank

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
TDS (mg/L)	mg/L	<10	N/A	FB	0					0.002		0.005	0
TDS (mg/L)	mg/L	<10	N/A	FB	0					0.002		0.005	0
TSS (mg/L)	mg/L	<10	N/A	FB	0					0.002		0.005	0
TSS (mg/L)	mg/L	<4	N/A	FB	0					0.002		0.005	0
Alkalinity (mg/L)	mg/L	<4	N/A	FB	0					0.002		0.005	0
Alkalinity (mg/L)	mg/L	<4	N/A	FB	0					0.002		0.005	0
Calcium (mg/L)	mg/L	<1	N/A	FB	0					0.002		0.005	1
Calcium (mg/L)	mg/L	<1	N/A	FB	0					0.002		0.005	1
Chloride (mg/L)	mg/L	<1	N/A	FB	0					0.002		0.005	0
Chloride (mg/L)	mg/L	<1	N/A	FB	0					0.002		0.005	0
Fluoride (mg/L)	mg/L	<0.1	N/A	FB	0					0.002		0.005	4
Fluoride (mg/L)	mg/L	<0.1	N/A	FB	0					0.002		0.005	4
Hardness (mg/L)	mg/L	<1	N/A	FB	0					0.002		0.005	0
Hardness (mg/L)	mg/L	<1	N/A	FB	0					0.002		0.005	0
Magnesium (mg/L)	mg/L	<1	N/A	FB	0					0.002		0.005	1
Magnesium (mg/L)	mg/L	<1	N/A	FB	0					0.002		0.005	1
Potassium (mg/L)	mg/L	<1	N/A	FB	0					0.002		0.005	1
Potassium (mg/L)	mg/L	<1	N/A	FB	0					0.002		0.005	1
Sodium (mg/L)	mg/L	<1	N/A	FB	0					0.002		0.005	1
Sodium (mg/L)	mg/L	<1	N/A	FB	0					0.002		0.005	1
Sulfate (mg/L)	mg/L	<1	N/A	FB	0					0.002		0.005	0
Sulfate (mg/L)	mg/L	<1	N/A	FB	0					0.002		0.005	0
N+N (mg/L)	mg/L	<0.01	N/A	FB	0					0.002		0.005	10
N+N (mg/L)	mg/L	<0.01	N/A	FB	0					0.002		0.005	10
Phosphorus (mg/L)	mg/L	<0.003	N/A	FB	0					0.002		0.005	0.007
Total N Pers (mg/L)	mg/L	<0.04	N/A	FB	0					0.002		0.005	0
Aluminum (DIS) (mg/L)	mg/L	<0.009	N/A	FB	0					0.002		0.005	0.009
Aluminum (DIS) (mg/L)	mg/L	<0.009	N/A	FB	0					0.002		0.005	0.009
Antimony (DIS) (mg/L)	mg/L	<0.0005	N/A	FB	0					0.002		0.005	0.0005
Antimony (TRC) (mg/L)	mg/L	<0.0005	N/A	FB	0					0.002		0.005	0.0005
Arsenic (DIS) (mg/L)	mg/L	<0.001	N/A	FB	0					0.002		0.005	0.001
Arsenic (TRC) (mg/L)	mg/L	<0.001	N/A	FB	0					0.002		0.005	0.001
Barium (TRC) (mg/L)	mg/L	<0.003	N/A	FB	0					0.002		0.005	0.003
Barium (DIS) (mg/L)	mg/L	<0.003	N/A	FB	0					0.002		0.005	0.003
Beryllium (TRC) (mg/L)	mg/L	<0.0008	N/A	FB	0					0.002		0.005	0.0008
Beryllium (DIS) (mg/L)	mg/L	<0.0008	N/A	FB	0					0.002		0.005	0.0008
Cadmium (TRC) (mg/L)	mg/L	<0.00003	N/A	FB	0					0.002		0.005	0
Cadmium (DIS) (mg/L)	mg/L	<0.00003	N/A	FB	0					0.002		0.005	0
Chromium (DIS) (mg/L)	mg/L	<0.01	N/A	FB	0					0.002		0.005	0.01
Chromium (TRC) (mg/L)	mg/L	<0.01	N/A	FB	0					0.002		0.005	0.01
Cobalt (TRC) (mg/L)	mg/L	<0.01	N/A	FB	0					0.002		0.005	0.01
Cobalt (DIS) (mg/L)	mg/L	<0.01	N/A	FB	0					0.002		0.005	0.01
Copper (DIS) (mg/L)	mg/L	<0.002	N/A	FB	0					0.002		0.005	0.002
Copper (TRC) (mg/L)	mg/L	<0.002	N/A	FB	0					0.002		0.005	0.002
Iron (TRC) (mg/L)	mg/L	<0.02	N/A	FB	0					0.002		0.005	0
Iron (DIS) (mg/L)	mg/L	<0.02	N/A	FB	0					0.002		0.005	0
Lead (DIS) (mg/L)	mg/L	<0.0003	N/A	FB	0					0.002		0.005	0.0003

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Lead (TRC) (mg/L)	mg/L	<0.0003	N/A	FB	0	0.002	0.005	0.0003
Manganese (DIS) (mg/L)	mg/L	<0.005	N/A	FB	0	0.002	0.005	0.005
Manganese (TRC) (mg/L)	mg/L	<0.005	N/A	FB	0	0.002	0.005	0.005
Mercury (TRC) (ug/L)	ug/L	<0.005	N/A	FB	0	0.002	0.005	0.005
Mercury (DIS) (ug/L)	ug/L	<0.005	N/A	FB	0	0.002	0.005	0.005
Molybdenum (DIS) (mg/L)	mg/L	<0.002	N/A	FB	0	0.002	0.005	0.002
Molybdenum (TRC) (mg/L)	mg/L	<0.002	N/A	FB	0	0.002	0.005	0.002
Nickel (DIS) (mg/L)	mg/L	<0.001	N/A	FB	0	0.002	0.005	0.001
Nickel (TRC) (mg/L)	mg/L	<0.001	N/A	FB	0	0.002	0.005	0.001
Selenium (DIS) (mg/L)	mg/L	<0.0002	N/A	FB	0	0.002	0.005	0.0002
Selenium (TRC) (mg/L)	mg/L	<0.0002	N/A	FB	0	0.002	0.005	0.0002
Silver (DIS) (mg/L)	mg/L	<0.0002	N/A	FB	0	0.002	0.005	0.0002
Silver (TRC) (mg/L)	mg/L	<0.0002	N/A	FB	0	0.002	0.005	0.0002
Strontium (DIS) (mg/L)	mg/L	<0.0002	N/A	FB	0	0.002	0.005	0.0002
Strontium (TRC) (mg/L)	mg/L	<0.0003	N/A	FB	0	0.002	0.005	0.0002
Thallium (DIS) (mg/L)	mg/L	<0.0002	N/A	FB	0	0.002	0.005	0.0002
Thallium (TRC) (mg/L)	mg/L	<0.0002	N/A	FB	0	0.002	0.005	0.0002
Uranium (TRC) (mg/L)	mg/L	<0.0002	N/A	FB	0	0.002	0.005	0.008
Uranium (DIS) (mg/L)	mg/L	<0.0002	N/A	FB	0	0.002	0.005	0.008
Zinc (TRC) (mg/L)	mg/L	<0.008	N/A	FB	0	0.002	0.005	0.002
Zinc (DIS) (mg/L)	mg/L	<0.002	N/A	FB	0	0.002	0.005	0.002

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: September 13, 2019

SAMPLE NO BBC-1907-108 | LAB NO: H19070585-002 | STATION: DS-1

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	11.17	03/25/15-07/24/19	O	33	33	8.15	916.0	11.11	9.5	145.14	301.39	0
Field pH (s.u.)	s.u.	7.95	03/25/15-07/24/19	O	32	32	7.36	8.56	7.78	7.78	0.28	8.34	0
Field SC (umhos/cm)	umhos/cm	416	03/25/15-07/24/19	O	33	33	337.0	698.7	420.3	418	50.1	520.5	0
Flow (Gallons Per Min)	allons Per M	11.1	03/25/15-07/24/19	O	29	29	0.1	62.3	5.9	9	13.4	32.7	0
Water Temp (Deg C)	Deg C	11.4	03/25/15-07/24/19	O	33	33	0.5	18.3	5.6	7.1	3.6	12.8	0
TDS (mg/L)	mg/L	222	03/25/15-07/24/19	O	33	33	203.0	245.0	230.2	231	9.5	249.2	0
TSS (mg/L)	mg/L	<10	03/25/15-07/24/19	O	33	10	< 10	1130.0					0
Alkalinity (mg/L)	mg/L	210	03/25/15-07/24/19	O	33	33	180.0	220.0	214.7	220	8	230.7	0
Calcium (mg/L)	mg/L	60	05/29/19-07/24/19	O	3	3	55.0	60.0	57.3	57	2.1	61.5	60
Chloride (mg/L)	mg/L	<1	03/25/15-07/24/19	O	33	0	< 1	< 1					0
Fluoride (mg/L)	mg/L	0.1	03/25/15-07/24/19	O	33	30	0.1	0.1	0.1	0.1	0	0.1	4
Hardness (mg/L)	mg/L	238	03/25/15-07/24/19	O	33	33	185.0	249.0	228.6	229	11.3	251.2	0
Magnesium (mg/L)	mg/L	22	05/29/19-07/24/19	O	3	3	20.0	22.0	21.0	21	1	23.0	23
Potassium (mg/L)	mg/L	<1	05/29/19-07/24/19	O	3	0	< 1	< 1					1
Sodium (mg/L)	mg/L	2	05/29/19-07/24/19	O	3	3	2.0	2.0	2.0	2	0	2.0	2
Sulfate (mg/L)	mg/L	14	03/25/15-07/24/19	O	33	33	11.0	18.0	14.7	15	1.6	17.9	0
N+N (mg/L)	mg/L	0.18	03/25/15-07/24/19	O	33	33	0.03	0.26	0.17	0.19	0.05	0.27	10
Aluminum (DIS) (mg/L)	mg/L	<0.009	05/29/19-07/24/19	O	3	0	< 0.009	< 0 .009					0.009
Antimony (DIS) (mg/L)	mg/L	<0.0005	05/29/19-07/24/19	O	3	0	< 0.0005	< 0 .0005					0.0005
Arsenic (DIS) (mg/L)	mg/L	<0.001	05/29/19-07/24/19	O	3	0	< 0.001	< 0 .001					0.001
Barium (DIS) (mg/L)	mg/L	0.05	05/29/19-07/24/19	O	3	3	0.05	0.05	0.05	0.05	0	0.05	0.057
Beryllium (DIS) (mg/L)	mg/L	<0.0008	05/29/19-07/24/19	O	3	0	< 0.0008	< 0 .0008					0.0008
Cadmium (DIS) (mg/L)	mg/L	<0.00003	05/29/19-07/24/19	O	3	0	< 0	< .00003					0
Chromium (DIS) (mg/L)	mg/L	<0.01	05/29/19-07/24/19	O	3	0	< 0.01	< 0 .01					0.01
Cobalt (DIS) (mg/L)	mg/L	<0.01	05/29/19-07/24/19	O	3	0	< 0.01	< 0 .01					0.01
Copper (DIS) (mg/L)	mg/L	<0.002	05/29/19-07/24/19	O	3	0	< 0.002	< 0 .002					0.002
Iron (DIS) (mg/L)	mg/L	<0.02	05/29/19-07/24/19	O	3	0	< 0.02	< 0 .02					0.02
Lead (DIS) (mg/L)	mg/L	<0.0003	05/29/19-07/24/19	O	3	0	< 0.0003	< 0 .0003					0.0003
Manganese (DIS) (mg/L)	mg/L	<0.005	05/29/19-07/24/19	O	3	0	< 0.005	< 0 .005					0.005
Mercury (DIS) (ug/L)	ug/L	<0.005	05/29/19-07/24/19	O	3	0	< 0.005	< 0 .005					0.005
Molybdenum (DIS) (mg/L)	mg/L	<0.002	05/29/19-07/24/19	O	3	0	< 0.002	< 0 .002					0.002
Nickel (DIS) (mg/L)	mg/L	<0.001	05/29/19-07/24/19	O	3	0	< 0.001	< 0 .001					0.001
Selenium (DIS) (mg/L)	mg/L	<0.0002	05/29/19-07/24/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Silver (DIS) (mg/L)	mg/L	<0.0002	05/29/19-07/24/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Strontium (DIS) (mg/L)	mg/L	0.1	05/29/19-07/24/19	O	3	3	0.1	0.1	0.1	0.1	0	0.1	0.116
Thallium (DIS) (mg/L)	mg/L	<0.0002	05/29/19-07/24/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Uranium (DIS) (mg/L)	mg/L	0.0006	05/29/19-07/24/19	O	3	3	0.0006	0.0006	0.0006	0.0006	0	0.0006	0.008
Zinc (DIS) (mg/L)	mg/L	<0.002	05/29/19-07/24/19	O	3	2	< 0.002	0.009	0.005	0.007	0.003	0.011	0.02

SAMPLE NO BBC-1907-102 | LAB NO: z | STATION: DS-10

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	8.55	N/A	OBS	0					0.007		0.011	0
Field pH (s.u.)	s.u.	7.68	N/A	OBS	0					0.007		0.011	0
Field SC (umhos/cm)	umhos/cm	338	N/A	OBS	0					0.007		0.011	0
Flow (Gallons Per Min)	allons Per M	3.97	N/A	OBS	0					0.007		0.011	0
Water Temp (Deg C)	Deg C	9.7	N/A	OBS	0					0.007		0.011	0

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

SAMPLE NO BBC-1907-101 LAB NO: z | STATION: DS-11

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	10.09	N/A	OBS	0					0.007		0.011	0
Field pH (s.u.)	s.u.	7.74	N/A	OBS	0					0.007		0.011	0
Field SC (umhos/cm)	umhos/cm	427	N/A	OBS	0					0.007		0.011	0
Flow (Gallons Per Min)	allons Per M	7.38	N/A	OBS	0					0.007		0.011	0
Water Temp (Deg C)	Deg C	7.5	N/A	OBS	0					0.007		0.011	0

SAMPLE NO BBC-1907-100 LAB NO: z | STATION: DS-2

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	5.19	10/12/11-08/19/14	OBS	2	2	4.27	9.51	6.37	6.89	2.31	10.99	0
Field pH (s.u.)	s.u.	7.17	10/12/11-08/19/14	OBS	2	2	6.45	7.9	7.14	7.18	0.53	8.2	0
Field SC (umhos/cm)	umhos/cm	333	10/12/11-08/19/14	OBS	2	2	331.0	354.0	342.3	342.5	74.1	490.5	0
Flow (Gallons Per Min)	allons Per M	0.91	10/12/11-08/19/14	OBS	2	2	0.26	0.76	0.45	0.51	2.15	4.75	0
Water Temp (Deg C)	Deg C	13.5	10/12/11-08/19/14	OBS	2	2	5.7	13.3	8.7	9.5	4.2	17.1	0

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: September 13, 2019

SAMPLE NO BBC-1907-112 | LAB NO: H19070585-004 | STATION: DS-3

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	5.14	08/06/14-07/24/19	O	31	31	3.72	10.8	6.62	6.97	2.23	11.08	0
Field pH (s.u.)	s.u.	8.23	08/06/14-07/24/19	O	31	31	5.56	8.7	7.02	7.16	0.96	8.94	0
Field SC (umhos/cm)	umhos/cm	49	08/06/14-07/24/19	O	31	31	40.0	132.0	56.6	55.7	19	94.6	0
Flow (Gallons Per Min)	allons Per M	13.08	08/06/14-07/24/19	O	27	27	0.47	159.0	4.58	6.6	21.62	47.82	0
Water Temp (Deg C)	Deg C	9.5	08/06/14-07/24/19	O	31	31	3.8	15.1	8.2	9.2	2.9	14.0	0
TDS (mg/L)	mg/L	54	08/06/14-07/24/19	O	31	31	47.0	128.0	69.7	66	22.2	114.1	0
TDS (mg/L)	mg/L	60	08/06/14-07/24/19	DUP	31	31	47.0	128.0	69.7	66	22.2	114.1	0
TSS (mg/L)	mg/L	<10	08/06/14-07/24/19	DUP	31	4	< 4	95.0					0
TSS (mg/L)	mg/L	<10	08/06/14-07/24/19	O	31	4	< 4	95.0					0
Alkalinity (mg/L)	mg/L	22	08/06/14-07/24/19	O	31	31	17.0	29.0	22.1	23	2.7	27.5	0
Alkalinity (mg/L)	mg/L	22	08/06/14-07/24/19	DUP	31	31	17.0	29.0	22.1	23	2.7	27.5	0
Calcium (mg/L)	mg/L	5	05/29/19-07/24/19	O	3	3	5.0	5.0	5.0	5	0	5.0	7
Calcium (mg/L)	mg/L	5	05/29/19-07/24/19	DUP	3	3	5.0	5.0	5.0	5	0	5.0	7
Chloride (mg/L)	mg/L	<1	08/06/14-07/24/19	O	31	3	< 1	< 1					0
Chloride (mg/L)	mg/L	<1	08/06/14-07/24/19	DUP	31	3	< 1	< 1					0
Fluoride (mg/L)	mg/L	<0.1	08/06/14-07/24/19	DUP	31	2	0.0	< .1					4
Fluoride (mg/L)	mg/L	<0.1	08/06/14-07/24/19	O	31	2	0.0	< .1					4
Hardness (mg/L)	mg/L	23	08/06/14-07/24/19	DUP	31	31	19.0	26.0	22.7	23	1.7	26.1	0
Hardness (mg/L)	mg/L	22	08/06/14-07/24/19	O	31	31	19.0	26.0	22.7	23	1.7	26.1	0
Magnesium (mg/L)	mg/L	2	05/29/19-07/24/19	DUP	3	3	1.0	2.0	1.6	2	0.5	2.6	2
Magnesium (mg/L)	mg/L	2	05/29/19-07/24/19	O	3	3	1.0	2.0	1.6	2	0.5	2.6	2
Potassium (mg/L)	mg/L	1	05/29/19-07/24/19	DUP	3	2	1.0	1.0	1.0	1	0	1.0	1
Potassium (mg/L)	mg/L	1	05/29/19-07/24/19	O	3	2	1.0	1.0	1.0	1	0	1.0	1
Sodium (mg/L)	mg/L	1	05/29/19-07/24/19	DUP	3	3	1.0	1.0	1.0	1	0	1.0	2
Sodium (mg/L)	mg/L	1	05/29/19-07/24/19	O	3	3	1.0	1.0	1.0	1	0	1.0	2
Sulfate (mg/L)	mg/L	1	08/06/14-07/24/19	DUP	31	31	1.0	2.0	1.3	1	0.4	2.1	0
Sulfate (mg/L)	mg/L	1	08/06/14-07/24/19	O	31	31	1.0	2.0	1.3	1	0.4	2.1	0
N+N (mg/L)	mg/L	0.18	08/06/14-07/24/19	DUP	31	31	0.11	0.48	0.26	0.28	0.09	0.44	10
N+N (mg/L)	mg/L	0.19	08/06/14-07/24/19	O	31	31	0.11	0.48	0.26	0.28	0.09	0.44	10
Aluminum (DIS) (mg/L)	mg/L	1.44 J	05/29/19-07/24/19	DUP	3	3	1.41	2.0	1.77	1.95	0.32	2.41	4.88
Aluminum (DIS) (mg/L)	mg/L	1.41 J	05/29/19-07/24/19	O	3	3	1.41	2.0	1.77	1.95	0.32	2.41	4.88
Antimony (DIS) (mg/L)	mg/L	<0.0005	05/29/19-07/24/19	O	3	0	< 0.0005	< 0 .0005					0.0005
Antimony (DIS) (mg/L)	mg/L	<0.0005	05/29/19-07/24/19	DUP	3	0	< 0.0005	< 0 .0005					0.0005
Arsenic (DIS) (mg/L)	mg/L	<0.001	05/29/19-07/24/19	DUP	3	0	< 0.001	< 0 .001					0.002
Arsenic (DIS) (mg/L)	mg/L	<0.001	05/29/19-07/24/19	O	3	0	< 0.001	< 0 .001					0.002
Barium (DIS) (mg/L)	mg/L	0.255	05/29/19-07/24/19	DUP	3	3	0.229	0.25	0.241	0.245	0.011	0.263	0.311
Barium (DIS) (mg/L)	mg/L	0.25	05/29/19-07/24/19	O	3	3	0.23	0.25	0.24	0.25	0.01	0.26	0.311
Beryllium (DIS) (mg/L)	mg/L	<0.0008	05/29/19-07/24/19	DUP	3	0	< 0.0008	< 0 .0008					0.0008
Beryllium (DIS) (mg/L)	mg/L	<0.0008	05/29/19-07/24/19	O	3	0	< 0.0008	< 0 .0008					0.0008
Cadmium (DIS) (mg/L)	mg/L	<0.00003	05/29/19-07/24/19	O	3	0	< 0	< .00003					0
Cadmium (DIS) (mg/L)	mg/L	<0.00003	05/29/19-07/24/19	DUP	3	0	< 0	< .00003					0
Chromium (DIS) (mg/L)	mg/L	<0.01	05/29/19-07/24/19	DUP	3	0	< 0.01	< 0 .01					0.01
Chromium (DIS) (mg/L)	mg/L	<0.01	05/29/19-07/24/19	O	3	0	< 0.01	< 0 .01					0.01
Cobalt (DIS) (mg/L)	mg/L	<0.01	05/29/19-07/24/19	O	3	0	< 0.01	< 0 .01					0.01
Cobalt (DIS) (mg/L)	mg/L	<0.01	05/29/19-07/24/19	DUP	3	0	< 0.01	< 0 .01					0.01
Copper (DIS) (mg/L)	mg/L	0.002	05/29/19-07/24/19	O	3	3	0.002	0.004	0.003	0.003	0.001	0.005	0.005
Copper (DIS) (mg/L)	mg/L	0.002	05/29/19-07/24/19	DUP	3	3	0.002	0.004	0.003	0.003	0.001	0.005	0.005

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Iron (DIS) (mg/L)	mg/L	0.8	05/29/19-07/24/19	DUP	3	3	0.8	1.2	1.1	1.2	0.2	1.5	2.87
Iron (DIS) (mg/L)	mg/L	0.78	05/29/19-07/24/19	O	3	3	0.78	1.24	1.05	1.2	0.25	1.55	2.87
Lead (DIS) (mg/L)	mg/L	<0.0003	05/29/19-07/24/19	DUP	3	2	< 0.0003	< 0 .0003	0.0003	0.0003	0	0.0003	0.0009
Lead (DIS) (mg/L)	mg/L	<0.0003	05/29/19-07/24/19	O	3	2	< 0.0003	< 0 .0003	0.0003	0.0003	0	0.0003	0.0009
Manganese (DIS) (mg/L)	mg/L	<0.005	05/29/19-07/24/19	O	3	2	< 0.005	0.008	0.006	0.006	0.001	0.008	0.018
Manganese (DIS) (mg/L)	mg/L	<0.005	05/29/19-07/24/19	DUP	3	2	< 0.005	0.008	0.006	0.006	0.001	0.008	0.018
Mercury (DIS) (ug/L)	ug/L	0.006	05/29/19-07/24/19	O	3	3	0.006	0.02	0.011	0.01	0.007	0.025	0.01
Mercury (DIS) (ug/L)	ug/L	0.006	05/29/19-07/24/19	DUP	3	3	0.006	0.02	0.011	0.01	0.007	0.025	0.01
Molybdenum (DIS) (mg/L)	mg/L	<0.002	05/29/19-07/24/19	O	3	0	< 0.002	< 0 .002					0.002
Molybdenum (DIS) (mg/L)	mg/L	<0.002	05/29/19-07/24/19	DUP	3	0	< 0.002	< 0 .002					0.002
Nickel (DIS) (mg/L)	mg/L	0.003	05/29/19-07/24/19	O	3	3	0.003	0.004	0.004	0.004	0.001	0.006	0.006
Nickel (DIS) (mg/L)	mg/L	0.003	05/29/19-07/24/19	DUP	3	3	0.003	0.004	0.004	0.004	0.001	0.006	0.006
Selenium (DIS) (mg/L)	mg/L	<0.0002	05/29/19-07/24/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Selenium (DIS) (mg/L)	mg/L	<0.0002	05/29/19-07/24/19	DUP	3	0	< 0.0002	< 0 .0002					0.0002
Silver (DIS) (mg/L)	mg/L	<0.0002	05/29/19-07/24/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Silver (DIS) (mg/L)	mg/L	<0.0002	05/29/19-07/24/19	DUP	3	0	< 0.0002	< 0 .0002					0.0002
Strontium (DIS) (mg/L)	mg/L	0.0297 L	05/29/19-07/24/19	O	3	3	0.0231	0.0297	0.0256	0.0244	0.0035	0.0326	0.0313
Strontium (DIS) (mg/L)	mg/L	0.0299 L	05/29/19-07/24/19	DUP	3	3	0.0231	0.0297	0.0256	0.0244	0.0035	0.0326	0.0313
Thallium (DIS) (mg/L)	mg/L	<0.0002	05/29/19-07/24/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Thallium (DIS) (mg/L)	mg/L	<0.0002	05/29/19-07/24/19	DUP	3	0	< 0.0002	< 0 .0002					0.0002
Uranium (DIS) (mg/L)	mg/L	<0.0002	05/29/19-07/24/19	DUP	3	0	< 0.0002	< 0 .0002					0.008
Uranium (DIS) (mg/L)	mg/L	<0.0002	05/29/19-07/24/19	O	3	0	< 0.0002	< 0 .0002					0.008
Zinc (DIS) (mg/L)	mg/L	0.007 L	05/29/19-07/24/19	O	3	3	0.006	0.007	0.006	0.006	0.001	0.008	0.012
Zinc (DIS) (mg/L)	mg/L	0.007 L	05/29/19-07/24/19	DUP	3	3	0.006	0.007	0.006	0.006	0.001	0.008	0.012

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

SAMPLE NO BBC-1907-115 | LAB NO: H19070585-007 | STATION: DS-4

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	7.26	10/13/11-07/24/19	O	28	28	2.45	11.98	7.27	7.68	1.99	11.25	0
Field pH (s.u.)	s.u.	7.7	10/13/11-07/24/19	O	27	27	5.9	8.8	7.2	7.3	0.7	8.6	0
Field SC (umhos/cm)	umhos/cm	98	10/13/11-07/24/19	O	28	28	73.0	203.0	101.4	98.5	26.7	154.8	0
Water Temp (Deg C)	Deg C	12.3	10/13/11-07/24/19	O	28	28	0.2	20.2	7.5	8.5	4.2	15.9	0
TDS (mg/L)	mg/L	69	10/13/11-07/24/19	O	28	28	60.0	143.0	92.1	90	19.1	130.3	0
TSS (mg/L)	mg/L	<10	08/06/14-07/24/19	O	27	14	< 10	868.0	32.2	24	180.4	393.0	0
Alkalinity (mg/L)	mg/L	42	10/13/11-07/24/19	O	28	28	36.0	84.0	46.0	44	10.1	66.2	0
Calcium (mg/L)	mg/L	12	05/29/19-07/24/19	O	3	3	12.0	13.0	12.7	13	0.6	13.9	16.3
Chloride (mg/L)	mg/L	<1	10/13/11-07/24/19	O	28	4	< 1	2.0					0
Fluoride (mg/L)	mg/L	<0.1	10/13/11-07/24/19	O	28	10	0.1	0.1					4
Hardness (mg/L)	mg/L	45	10/13/11-07/24/19	O	28	28	38.0	71.0	47.0	47	6.8	60.6	0
Magnesium (mg/L)	mg/L	3	05/29/19-07/24/19	O	3	3	3.0	3.0	3.0	3	0	3.0	3.1
Potassium (mg/L)	mg/L	<1	05/29/19-07/24/19	O	3	0	< 1	< 1					2
Sodium (mg/L)	mg/L	1	05/29/19-07/24/19	O	3	3	1.0	1.0	1.0	1	0	1.0	2
Sulfate (mg/L)	mg/L	2	10/13/11-07/24/19	O	28	27	1.0	4.0	2.2	2	0.7	3.6	0
N+N (mg/L)	mg/L	0.31	10/13/11-07/24/19	O	28	23	0.01	0.47	0.12	0.26	0.15	0.42	10
Aluminum (DIS) (mg/L)	mg/L	0.71 J	05/29/19-07/24/19	O	3	3	0.71	1.35	1.07	1.28	0.35	1.77	3.66
Antimony (DIS) (mg/L)	mg/L	<0.0005	05/29/19-07/24/19	O	3	0	< 0.0005	< 0 .0005					0.001
Arsenic (DIS) (mg/L)	mg/L	0.001	05/29/19-07/24/19	O	3	3	0.001	0.001	0.001	0.001	0	0.001	0.003
Barium (DIS) (mg/L)	mg/L	0.315	05/29/19-07/24/19	O	3	3	0.309	0.327	0.317	0.315	0.009	0.335	0.36
Beryllium (DIS) (mg/L)	mg/L	<0.0008	05/29/19-07/24/19	O	3	0	< 0.0008	< 0 .0008					0.001
Cadmium (DIS) (mg/L)	mg/L	<0.00003	05/29/19-07/24/19	O	3	0	< 0	< .00003					0
Chromium (DIS) (mg/L)	mg/L	<0.01	05/29/19-07/24/19	O	3	0	< 0.01	< 0 .01					0.01
Cobalt (DIS) (mg/L)	mg/L	<0.01	05/29/19-07/24/19	O	3	0	< 0.01	< 0 .01					0.01
Copper (DIS) (mg/L)	mg/L	<0.002	05/29/19-07/24/19	O	3	1	< 0.002	< 0 .002					0.004
Iron (DIS) (mg/L)	mg/L	0.38	05/29/19-07/24/19	O	3	3	0.38	0.82	0.62	0.77	0.24	1.1	2.19
Lead (DIS) (mg/L)	mg/L	<0.0003	05/29/19-07/24/19	O	3	0	< 0.0003	< 0 .0003					0.0009
Manganese (DIS) (mg/L)	mg/L	<0.005	05/29/19-07/24/19	O	3	2	< 0.005	0.006	0.005	0.005	0.001	0.007	0.16
Mercury (DIS) (ug/L)	ug/L	<0.005	05/29/19-07/24/19	O	3	2	< 0.005	0.008	0.006	0.006	0.002	0.01	0.005
Molybdenum (DIS) (mg/L)	mg/L	<0.002	05/29/19-07/24/19	O	3	0	< 0.002	< 0 .002					0.002
Nickel (DIS) (mg/L)	mg/L	0.002	05/29/19-07/24/19	O	3	3	0.002	0.002	0.002	0.002	0	0.002	0
Selenium (DIS) (mg/L)	mg/L	<0.0002	05/29/19-07/24/19	O	3	0	< 0.0002	< 0 .0002					0
Silver (DIS) (mg/L)	mg/L	<0.0002	05/29/19-07/24/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Strontium (DIS) (mg/L)	mg/L	0.0456 L	05/29/19-07/24/19	O	3	3	0.0396	0.0456	0.0425	0.0425	0.003	0.0485	0.1
Thallium (DIS) (mg/L)	mg/L	<0.0002	05/29/19-07/24/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Uranium (DIS) (mg/L)	mg/L	<0.0002	05/29/19-07/24/19	O	3	0	< 0.0002	< 0 .0002					0.008
Zinc (DIS) (mg/L)	mg/L	<0.005	05/29/19-07/24/19	O	3	2	0.004	0.006	0.005	0.005	0.001	0.007	0.012

SAMPLE NO BBC-1907-116 | LAB NO: z | STATION: DS-7

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	8.81	N/A	OBS	0					0.005		0.007	0
Field pH (s.u.)	s.u.	6.81	N/A	OBS	0					0.005		0.007	0
Field SC (umhos/cm)	umhos/cm	260	N/A	OBS	0					0.005		0.007	0
Flow (Gallons Per Min)	allons Per M	10.51	N/A	OBS	0					0.005		0.007	0
Water Temp (Deg C)	Deg C	8.5	N/A	OBS	0					0.005		0.007	0

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

SAMPLE NO BBC-1907-104 LAB NO: z STATION: DS-8

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	9.19	N/A	OBS	0					0.005		0.007	0
Field pH (s.u.)	s.u.	7.73	N/A	OBS	0					0.005		0.007	0
Field SC (umhos/cm)	umhos/cm	439	N/A	OBS	0					0.005		0.007	0
Flow (Gallons Per Min)	allons Per M	5.44	N/A	OBS	0					0.005		0.007	0
Water Temp (Deg C)	Deg C	6.83	N/A	OBS	0					0.005		0.007	0

SAMPLE NO BBC-1907-103 LAB NO: z STATION: DS-9

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	8.1	N/A	OBS	0					0.005		0.007	0
Field pH (s.u.)	s.u.	7.84	N/A	OBS	0					0.005		0.007	0
Field SC (umhos/cm)	umhos/cm	355	N/A	OBS	0					0.005		0.007	0
Flow (Gallons Per Min)	allons Per M	10.88	N/A	OBS	0					0.005		0.007	0
Water Temp (Deg C)	Deg C	10.9	N/A	OBS	0					0.005		0.007	0

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: September 13, 2019

SAMPLE NO BBC-1907-106 | LAB NO: H19070585-001 | STATION: SP-10

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	7.83	05/23/18-07/24/19	O	11	11	6.76	8.93	7.99	8	1.05	10.09	0
Field pH (s.u.)	s.u.	7.8	05/23/18-07/24/19	O	11	11	6.9	8.1	7.6	7.6	0.3	8.2	0
Field SC (umhos/cm)	umhos/cm	394	05/23/18-07/24/19	O	11	11	305.0	434.0	393.9	395	32.4	458.7	0
Flow (Gallons Per Min)	allons Per M	6.73	05/23/18-07/24/19	O	10	10	0.58	59.69	6.99	8.98	17.99	42.97	0
Water Temp (Deg C)	Deg C	9.6	05/23/18-07/24/19	O	11	11	4.6	10.1	7.2	7.4	2.2	11.6	0
TDS (mg/L)	mg/L	208	05/23/18-07/24/19	O	11	11	196.0	234.0	219.5	225	13.6	246.7	0
TSS (mg/L)	mg/L	<10	05/23/18-07/24/19	O	11	3	< 10	68.0					0
Alkalinity (mg/L)	mg/L	210	05/23/18-07/24/19	O	11	11	180.0	220.0	208.7	210	12.7	234.1	0
Calcium (mg/L)	mg/L	58	05/29/19-07/24/19	O	3	3	51.0	58.0	53.6	52	3.8	61.2	60
Chloride (mg/L)	mg/L	<1	05/23/18-07/24/19	O	11	0	< 1	< 1					0
Fluoride (mg/L)	mg/L	0.1	05/23/18-07/24/19	O	11	11	0.1	0.1	0.1	0.1	0	0.1	4
Hardness (mg/L)	mg/L	228	05/23/18-07/24/19	O	11	11	193.0	245.0	220.8	220	16.2	253.2	0
Magnesium (mg/L)	mg/L	20	05/29/19-07/24/19	O	3	3	18.0	20.0	18.6	18	1.2	21.0	21.8
Potassium (mg/L)	mg/L	1	05/29/19-07/24/19	O	3	1	1.0	1.0					1
Sodium (mg/L)	mg/L	2	05/29/19-07/24/19	O	3	3	1.0	2.0	1.6	2	0.6	2.8	2
Sulfate (mg/L)	mg/L	12	05/23/18-07/24/19	O	11	11	8.0	17.0	12.8	13	2.9	18.6	0
N+N (mg/L)	mg/L	0.18	05/23/18-07/24/19	O	11	11	0.06	0.28	0.19	0.19	0.06	0.31	10
Aluminum (DIS) (mg/L)	mg/L	<0.009	05/29/19-07/24/19	O	3	0	< 0.009	< 0 .009					0.009
Antimony (DIS) (mg/L)	mg/L	<0.0005	05/29/19-07/24/19	O	3	0	< 0.0005	< 0 .0005					0.0005
Arsenic (DIS) (mg/L)	mg/L	<0.001	05/29/19-07/24/19	O	3	0	< 0.001	< 0 .001					0.001
Barium (DIS) (mg/L)	mg/L	0.052	05/29/19-07/24/19	O	3	3	0.046	0.052	0.049	0.05	0.003	0.055	0.055
Beryllium (DIS) (mg/L)	mg/L	<0.0008	05/29/19-07/24/19	O	3	0	< 0.0008	< 0 .0008					0.0008
Cadmium (DIS) (mg/L)	mg/L	<0.00003	05/29/19-07/24/19	O	3	0	< 0	< .00003					0
Chromium (DIS) (mg/L)	mg/L	<0.01	05/29/19-07/24/19	O	3	0	< 0.01	< 0 .01					0.01
Cobalt (DIS) (mg/L)	mg/L	<0.01	05/29/19-07/24/19	O	3	0	< 0.01	< 0 .01					0.01
Copper (DIS) (mg/L)	mg/L	<0.002	05/29/19-07/24/19	O	3	0	< 0.002	< 0 .002					0.002
Iron (DIS) (mg/L)	mg/L	<0.02	05/29/19-07/24/19	O	3	0	< 0.02	< 0 .02					0.02
Lead (DIS) (mg/L)	mg/L	<0.0003	05/29/19-07/24/19	O	3	0	< 0.0003	< 0 .0003					0.0003
Manganese (DIS) (mg/L)	mg/L	<0.005	05/29/19-07/24/19	O	3	0	< 0.005	< 0 .005					0.011
Mercury (DIS) (ug/L)	ug/L	<0.005	05/29/19-07/24/19	O	3	0	< 0.005	< 0 .005					0.005
Molybdenum (DIS) (mg/L)	mg/L	<0.002	05/29/19-07/24/19	O	3	0	< 0.002	< 0 .002					0.002
Nickel (DIS) (mg/L)	mg/L	<0.001	05/29/19-07/24/19	O	3	0	< 0.001	< 0 .001					0.001
Selenium (DIS) (mg/L)	mg/L	<0.0002	05/29/19-07/24/19	O	3	0	< 0.0002	< 0 .0002					0.0003
Silver (DIS) (mg/L)	mg/L	<0.0002	05/29/19-07/24/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Strontium (DIS) (mg/L)	mg/L	0.104	05/29/19-07/24/19	O	3	3	0.102	0.109	0.105	0.104	0.004	0.113	0.119
Thallium (DIS) (mg/L)	mg/L	<0.0002	05/29/19-07/24/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Uranium (DIS) (mg/L)	mg/L	0.0007	05/29/19-07/24/19	O	3	3	0.0007	0.0007	0.0007	0.0007	0	0.0007	0.008
Zinc (DIS) (mg/L)	mg/L	<0.002	05/29/19-07/24/19	O	3	0	< 0.002	< 0 .002					0.002

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: September 13, 2019

SAMPLE NO BBC-1907-121 | LAB NO: H19070585-012 | STATION: SP-11

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	6.61	04/18/18-07/25/19	O	12	12	6.09	8.36	7.12	7.01	0.65	8.42	0
Field pH (s.u.)	s.u.	7.65	04/18/18-07/25/19	O	12	12	6.28	7.98	7.43	7.62	0.51	8.45	0
Field SC (umhos/cm)	umhos/cm	196	04/18/18-07/25/19	O	12	12	171.0	196.0	186.2	187.5	8.4	203.0	0
Flow (Gallons Per Min)	llons Per M	NM	07/25/19	O	1	1	-9999.0	-9999.0	0.0	0	0	0.0	0
Water Temp (Deg C)	Deg C	6.8	04/18/18-07/25/19	O	12	12	5.6	7.4	6.4	6.4	0.5	7.4	0
TDS (mg/L)	mg/L	122	04/18/18-07/25/19	O	12	12	99.0	133.0	117.3	116	10.7	138.7	0
TSS (mg/L)	mg/L	<10	04/18/18-07/25/19	O	12	1	< 10	< 10					0
Alkalinity (mg/L)	mg/L	92	04/18/18-07/25/19	O	12	12	82.0	95.0	91.4	92	3.4	98.2	0
Calcium (mg/L)	mg/L	23	06/19/19-07/25/19	O	2	2	23.0	23.0	23.0	23	0	23.0	23.8
Chloride (mg/L)	mg/L	<1	04/18/18-07/25/19	O	12	0	< 1	< 1					0
Fluoride (mg/L)	mg/L	0.1	04/18/18-07/25/19	O	12	12	0.1	0.2	0.2	0.2	0	0.2	4
Hardness (mg/L)	mg/L	91	04/18/18-07/25/19	O	12	12	81.0	95.0	90.8	91.5	3.8	98.4	0
Magnesium (mg/L)	mg/L	8	06/19/19-07/25/19	O	2	2	8.0	8.0	8.0	8	0	8.0	9
Potassium (mg/L)	mg/L	1	06/19/19-07/25/19	O	2	2	1.0	1.0	1.0	1	0	1.0	1
Sodium (mg/L)	mg/L	3	06/19/19-07/25/19	O	2	2	3.0	3.0	3.0	3	0	3.0	4
Sulfate (mg/L)	mg/L	6	04/18/18-07/25/19	O	12	12	5.0	8.0	6.7	7	0.9	8.5	0
N+N (mg/L)	mg/L	0.22	04/18/18-07/25/19	O	12	12	0.22	0.31	0.25	0.25	0.03	0.31	10
Aluminum (DIS) (mg/L)	mg/L	0.065 J	06/19/19-07/25/19	O	2	2	0.065	0.079	0.072	0.072	0.01	0.092	0.167
Antimony (DIS) (mg/L)	mg/L	<0.0005	06/19/19-07/25/19	O	2	0	< 0.0005	< 0 .0005					0.0005
Arsenic (DIS) (mg/L)	mg/L	0.006	06/19/19-07/25/19	O	2	2	0.006	0.007	0.006	0.007	0.001	0.008	0.008
Barium (DIS) (mg/L)	mg/L	0.309	06/19/19-07/25/19	O	2	2	0.303	0.309	0.306	0.306	0.004	0.314	0.308
Beryllium (DIS) (mg/L)	mg/L	<0.0008	06/19/19-07/25/19	O	2	0	< 0.0008	< 0 .0008					0.0008
Cadmium (DIS) (mg/L)	mg/L	<0.00003	06/19/19-07/25/19	O	2	0	< 0	< .00003					0
Chromium (DIS) (mg/L)	mg/L	<0.01	06/19/19-07/25/19	O	2	0	< 0.01	< 0 .01					0.01
Cobalt (DIS) (mg/L)	mg/L	<0.01	06/19/19-07/25/19	O	2	0	< 0.01	< 0 .01					0.01
Copper (DIS) (mg/L)	mg/L	<0.002	06/19/19-07/25/19	O	2	0	< 0.002	< 0 .002					0.002
Iron (DIS) (mg/L)	mg/L	0.03	06/19/19-07/25/19	O	2	2	0.03	0.04	0.03	0.04	0.01	0.05	0.08
Lead (DIS) (mg/L)	mg/L	<0.0003	06/19/19-07/25/19	O	2	0	< 0.0003	< 0 .0003					0.0003
Manganese (DIS) (mg/L)	mg/L	<0.005	06/19/19-07/25/19	O	2	0	< 0.005	< 0 .005					0.005
Mercury (DIS) (ug/L)	ug/L	<0.005	06/19/19-07/25/19	O	2	0	< 0.005	< 0 .005					0.005
Molybdenum (DIS) (mg/L)	mg/L	<0.002	06/19/19-07/25/19	O	2	0	< 0.002	< 0 .002					0.002
Nickel (DIS) (mg/L)	mg/L	<0.001	06/19/19-07/25/19	O	2	0	< 0.001	< 0 .001					0.001
Selenium (DIS) (mg/L)	mg/L	<0.0002	06/19/19-07/25/19	O	2	0	< 0.0002	< 0 .0002					0.0002
Silver (DIS) (mg/L)	mg/L	<0.0002	06/19/19-07/25/19	O	2	0	< 0.0002	< 0 .0002					0.0002
Strontium (DIS) (mg/L)	mg/L	0.0951	06/19/19-07/25/19	O	2	2	0.0951	0.104	0.0995	0.0996	0.0063	0.1121	0.104
Thallium (DIS) (mg/L)	mg/L	<0.0002	06/19/19-07/25/19	O	2	0	< 0.0002	< 0 .0002					0.0002
Uranium (DIS) (mg/L)	mg/L	0.0004	06/19/19-07/25/19	O	2	2	0.0004	0.0005	0.0004	0.0005	0.0001	0.0006	0.008
Zinc (DIS) (mg/L)	mg/L	<0.002	06/19/19-07/25/19	O	2	0	< 0.002	< 0 .002					0.002

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: September 13, 2019

SAMPLE NO BBC-1907-120 | LAB NO: H19070585-011 | STATION: SP-12

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	4.6	04/18/18-07/25/19	O	12	12	3.3	10.4	6.3	6.6	2.1	10.5	0
Field pH (s.u.)	s.u.	7.76	04/18/18-07/25/19	O	12	12	6.76	7.95	7.58	7.71	0.33	8.24	0
Field SC (umhos/cm)	umhos/cm	415	04/18/18-07/25/19	O	12	12	400.0	473.0	436.7	436.5	20.6	477.9	0
Flow (Gallons Per Min)	allons Per M	NM	07/25/19	O	1	1	-9999.0	-9999.0	0.0	0	0	0.0	0
Water Temp (Deg C)	Deg C	8.4	04/18/18-07/25/19	O	12	12	5.1	8.4	6.4	6.2	0.9	8.2	0
TDS (mg/L)	mg/L	244	04/18/18-07/25/19	O	13	13	230.0	262.0	245.5	247	9.8	265.1	0
TSS (mg/L)	mg/L	10 J	04/18/18-07/25/19	O	13	8	10.0	187.0	24.8	22	53.7	132.2	0
Alkalinity (mg/L)	mg/L	190	04/18/18-07/25/19	O	13	13	180.0	220.0	202.0	210	11.7	225.4	0
Calcium (mg/L)	mg/L	52	05/30/19-07/25/19	O	3	3	47.0	52.0	49.6	50	2.5	54.6	57.7
Chloride (mg/L)	mg/L	8	04/18/18-07/25/19	O	13	13	5.0	10.0	7.6	8	1.5	10.6	0
Fluoride (mg/L)	mg/L	0.2	04/18/18-07/25/19	O	13	13	0.2	0.2	0.2	0.2	0	0.2	4
Hardness (mg/L)	mg/L	224	04/18/18-07/25/19	O	13	13	200.0	258.0	231.5	233	15.2	261.9	0
Magnesium (mg/L)	mg/L	23	05/30/19-07/25/19	O	3	3	20.0	23.0	21.3	21	1.5	24.3	25.7
Potassium (mg/L)	mg/L	2	05/30/19-07/25/19	O	3	3	1.0	2.0	1.3	1	0.6	2.5	2
Sodium (mg/L)	mg/L	2	05/30/19-07/25/19	O	3	3	2.0	2.0	2.0	2	0	2.0	2.7
Sulfate (mg/L)	mg/L	19	04/18/18-07/25/19	O	13	13	13.0	28.0	22.4	24	4.1	30.6	0
N+N (mg/L)	mg/L	0.42	04/18/18-07/25/19	O	13	13	0.12	0.69	0.36	0.33	0.15	0.66	10
Aluminum (DIS) (mg/L)	mg/L	<0.009	05/30/19-07/25/19	O	3	0	< 0.009	< 0 .009					0.009
Antimony (DIS) (mg/L)	mg/L	<0.0005	05/30/19-07/25/19	O	3	0	< 0.0005	< 0 .0005					0.0005
Arsenic (DIS) (mg/L)	mg/L	<0.001	05/30/19-07/25/19	O	3	0	< 0.001	< 0 .001					0.001
Barium (DIS) (mg/L)	mg/L	0.173	05/30/19-07/25/19	O	3	3	0.157	0.173	0.163	0.16	0.009	0.181	0.189
Beryllium (DIS) (mg/L)	mg/L	<0.0008	05/30/19-07/25/19	O	3	0	< 0.0008	< 0 .0008					0.0008
Cadmium (DIS) (mg/L)	mg/L	<0.00003	05/30/19-07/25/19	O	3	0	< 0	< .00003					0
Chromium (DIS) (mg/L)	mg/L	<0.01	05/30/19-07/25/19	O	3	0	< 0.01	< 0 .01					0.01
Cobalt (DIS) (mg/L)	mg/L	<0.01	05/30/19-07/25/19	O	3	0	< 0.01	< 0 .01					0.01
Copper (DIS) (mg/L)	mg/L	<0.002	05/30/19-07/25/19	O	3	0	< 0.002	< 0 .002					0.002
Iron (DIS) (mg/L)	mg/L	0.29	05/30/19-07/25/19	O	3	2	< 0.02	0.29	0.07	0.07	0.14	0.35	0.07
Lead (DIS) (mg/L)	mg/L	<0.0003	05/30/19-07/25/19	O	3	0	< 0.0003	< 0 .0003					0.0003
Manganese (DIS) (mg/L)	mg/L	0.02	05/30/19-07/25/19	O	3	2	< 0.01	0.02	0.01	0.02	0.01	0.03	0.01
Mercury (DIS) (ug/L)	ug/L	<0.005	05/30/19-07/25/19	O	3	1	< 0.005	< 0 .005					0.005
Molybdenum (DIS) (mg/L)	mg/L	<0.002	05/30/19-07/25/19	O	3	0	< 0.002	< 0 .002					0.002
Nickel (DIS) (mg/L)	mg/L	<0.001	05/30/19-07/25/19	O	3	0	< 0.001	< 0 .001					0.001
Selenium (DIS) (mg/L)	mg/L	<0.0002	05/30/19-07/25/19	O	3	1	< 0.0002	< 0 .0002					0.0002
Silver (DIS) (mg/L)	mg/L	<0.0002	05/30/19-07/25/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Strontium (DIS) (mg/L)	mg/L	0.101	05/30/19-07/25/19	O	3	3	0.097	0.103	0.1	0.101	0.003	0.106	0.114
Thallium (DIS) (mg/L)	mg/L	<0.0002	05/30/19-07/25/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Uranium (DIS) (mg/L)	mg/L	0.0006	05/30/19-07/25/19	O	3	3	0.0006	0.0006	0.0006	0.0006	0	0.0006	0.008
Zinc (DIS) (mg/L)	mg/L	<0.002	05/30/19-07/25/19	O	3	0	< 0.002	< 0 .002					0.003

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: September 13, 2019

SAMPLE NO BBC-1907-114 | LAB NO: H19070585-006 | STATION: SP-3

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	8.66	07/20/11-07/24/19	O	30	30	5.41	19.38	9.48	9.46	2.17	13.82	0
Field pH (s.u.)	s.u.	7.79	07/20/11-07/24/19	O	29	29	6.2	8.66	7.36	7.42	0.56	8.48	0
Field SC (umhos/cm)	umhos/cm	155	07/20/11-07/24/19	O	30	30	103.0	223.0	161.2	167	38.1	237.4	0
Flow (Gallons Per Min)	allons Per M	1.93	07/20/11-07/24/19	O	28	27	< 0.01	8.1	0.71	0.77	1.87	4.45	0
Water Temp (Deg C)	Deg C	9.9	07/20/11-07/24/19	O	30	30	1.7	15.8	6.8	7.6	3.7	14.2	0
TDS (mg/L)	mg/L	113	07/20/11-07/24/19	O	30	30	113.0	214.0	139.3	134	22	183.3	0
TSS (mg/L)	mg/L	20 J	08/28/13-07/24/19	O	28	16	< 10	191.0	23.7	14	115.4	254.5	0
Alkalinity (mg/L)	mg/L	69	07/20/11-07/24/19	O	30	30	44.0	100.0	74.2	75.5	20.3	114.8	0
Calcium (mg/L)	mg/L	22	05/29/19-07/24/19	O	3	3	17.0	22.0	18.5	17	2.9	24.3	30.8
Chloride (mg/L)	mg/L	<1	07/20/11-07/24/19	O	30	4	< 1	2.0					0
Fluoride (mg/L)	mg/L	0.1	07/20/11-07/24/19	O	30	30	0.1	0.1	0.1	0.1	0	0.1	4
Hardness (mg/L)	mg/L	75	07/20/11-07/24/19	O	30	30	48.0	109.0	78.5	80	18.4	115.3	0
Magnesium (mg/L)	mg/L	5	05/29/19-07/24/19	O	3	3	4.0	5.0	4.3	4	0.6	5.5	7
Potassium (mg/L)	mg/L	1	05/29/19-07/24/19	O	3	3	1.0	2.0	1.3	1	0.6	2.5	2.8
Sodium (mg/L)	mg/L	2	05/29/19-07/24/19	O	3	3	2.0	2.0	2.0	2	0	2.0	3
Sulfate (mg/L)	mg/L	6	07/20/11-07/24/19	O	30	30	3.0	7.0	5.1	5.4	1.2	7.5	0
N+N (mg/L)	mg/L	0.19	07/20/11-07/24/19	O	30	30	0.1	0.43	0.27	0.29	0.07	0.41	10
Aluminum (DIS) (mg/L)	mg/L	0.396 J	05/29/19-07/24/19	O	3	3	0.198	1.2	0.455	0.396	0.531	1.517	3.7
Antimony (DIS) (mg/L)	mg/L	<0.0005	05/29/19-07/24/19	O	3	0	< 0.0005	< 0 .0005					0.001
Arsenic (DIS) (mg/L)	mg/L	0.002	05/29/19-07/24/19	O	3	3	0.002	0.002	0.002	0.002	0	0.002	0.003
Barium (DIS) (mg/L)	mg/L	0.262	05/29/19-07/24/19	O	3	3	0.214	0.262	0.234	0.229	0.025	0.284	0.32
Beryllium (DIS) (mg/L)	mg/L	<0.0008	05/29/19-07/24/19	O	3	0	< 0.0008	< 0 .0008					0.001
Cadmium (DIS) (mg/L)	mg/L	<0.00003	05/29/19-07/24/19	O	3	1	< 0	< .00003					0.0001
Chromium (DIS) (mg/L)	mg/L	<0.01	05/29/19-07/24/19	O	3	0	< 0.01	< 0 .01					0.01
Cobalt (DIS) (mg/L)	mg/L	<0.01	05/29/19-07/24/19	O	3	0	< 0.01	< 0 .01					0.01
Copper (DIS) (mg/L)	mg/L	<0.002	05/29/19-07/24/19	O	3	2	< 0.002	0.004	0.003	0.003	0.001	0.005	0.007
Iron (DIS) (mg/L)	mg/L	0.06	05/29/19-07/24/19	O	3	3	0.06	0.81	0.28	0.45	0.38	1.04	2.39
Lead (DIS) (mg/L)	mg/L	<0.0003	05/29/19-07/24/19	O	3	1	< 0.0003	< 0 .0003					0.0008
Manganese (DIS) (mg/L)	mg/L	<0.005	05/29/19-07/24/19	O	3	1	< 0.005	< 0 .005					0.016
Mercury (DIS) (ug/L)	ug/L	0.006	05/29/19-07/24/19	O	3	3	0.006	0.02	0.01	0.009	0.007	0.024	0
Molybdenum (DIS) (mg/L)	mg/L	<0.002	05/29/19-07/24/19	O	3	0	< 0.002	< 0 .002					0.002
Nickel (DIS) (mg/L)	mg/L	0.001	05/29/19-07/24/19	O	3	3	0.001	0.003	0.002	0.002	0.001	0.004	0.009
Selenium (DIS) (mg/L)	mg/L	<0.0002	05/29/19-07/24/19	O	3	0	< 0.0002	< 0 .0002					0
Silver (DIS) (mg/L)	mg/L	<0.0002	05/29/19-07/24/19	O	3	0	< 0.0002	< 0 .0002					0.0003
Strontium (DIS) (mg/L)	mg/L	0.0602	05/29/19-07/24/19	O	3	3	0.0473	0.0602	0.0538	0.0546	0.0065	0.0668	0.1
Thallium (DIS) (mg/L)	mg/L	<0.0002	05/29/19-07/24/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Uranium (DIS) (mg/L)	mg/L	<0.0002	05/29/19-07/24/19	O	3	0	< 0.0002	< 0 .0002					0.008
Zinc (DIS) (mg/L)	mg/L	<0.002	05/29/19-07/24/19	O	3	1	< 0.002	0.004					0.01

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: September 13, 2019

SAMPLE NO BBC-1907-118 | LAB NO: H19070585-009 | STATION: SP-4

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	9.13	07/21/11-07/25/19	O	52	52	6.7	13.95	9.82	9.7	1.36	12.54	0
Field pH (s.u.)	s.u.	7.59	07/21/11-07/25/19	O	51	51	6.95	8.63	7.69	7.71	0.28	8.25	0
Field SC (umhos/cm)	umhos/cm	428	07/21/11-07/25/19	O	52	52	162.0	481.0	420.5	431.5	46	512.5	0
Flow (Gallons Per Min)	allons Per M	15.26	07/21/11-07/25/19	O	44	44	0.0	50.27	3.29	5.4	10.24	23.77	0
Water Temp (Deg C)	Deg C	6.7	07/21/11-07/25/19	O	51	51	0.1	12.2	5.6	6.5	2.1	9.8	0
TDS (mg/L)	mg/L	236	07/21/11-07/25/19	O	53	53	202.0	272.0	246.8	249	13.8	274.4	0
TSS (mg/L)	mg/L	10 J	08/28/13-07/25/19	O	50	31	5.0	890.0	20.6	11.5	123.6	267.8	0
Alkalinity (mg/L)	mg/L	190	07/21/11-07/25/19	O	53	53	190.0	210.0	200.7	200	4.9	210.5	0
Calcium (mg/L)	mg/L	47	05/30/19-07/25/19	O	3	3	46.0	47.0	46.7	47	0.6	47.9	54
Chloride (mg/L)	mg/L	<1	07/21/11-07/25/19	O	53	14	< 1	< 1					0
Fluoride (mg/L)	mg/L	0.2	07/21/11-07/25/19	O	53	53	0.2	0.3	0.2	0.2	0	0.2	4
Hardness (mg/L)	mg/L	219	07/21/11-07/25/19	O	52	52	208.0	255.0	235.4	237.5	11.7	258.8	0
Magnesium (mg/L)	mg/L	25	05/30/19-07/25/19	O	3	3	24.0	25.0	24.3	24	0.6	25.5	28
Potassium (mg/L)	mg/L	2	05/30/19-07/25/19	O	3	3	2.0	2.0	2.0	2	0	2.0	2
Sodium (mg/L)	mg/L	2	05/30/19-07/25/19	O	3	3	2.0	2.0	2.0	2	0	2.0	2
Sulfate (mg/L)	mg/L	26	07/21/11-07/25/19	O	53	53	10.0	45.0	35.0	38	6.6	48.2	0
N+N (mg/L)	mg/L	0.28	07/21/11-07/25/19	O	53	53	0.18	0.35	0.25	0.25	0.03	0.31	10
Aluminum (DIS) (mg/L)	mg/L	<0.009	05/30/19-07/25/19	O	3	1	< 0.009	0.01					0.025
Antimony (DIS) (mg/L)	mg/L	<0.0005	05/30/19-07/25/19	O	3	0	< 0.0005	< 0 .0005					0.001
Arsenic (DIS) (mg/L)	mg/L	<0.001	05/30/19-07/25/19	O	3	0	< 0.001	< 0 .001					0.001
Barium (DIS) (mg/L)	mg/L	0.113	05/30/19-07/25/19	O	3	3	0.108	0.113	0.11	0.109	0.003	0.116	0.119
Beryllium (DIS) (mg/L)	mg/L	<0.0008	05/30/19-07/25/19	O	3	0	< 0.0008	< 0 .0008					0.001
Cadmium (DIS) (mg/L)	mg/L	<0.00003	05/30/19-07/25/19	O	3	0	< 0	< .00003					0
Chromium (DIS) (mg/L)	mg/L	<0.01	05/30/19-07/25/19	O	3	0	< 0.01	< 0 .01					0.01
Cobalt (DIS) (mg/L)	mg/L	<0.01	05/30/19-07/25/19	O	3	0	< 0.01	< 0 .01					0.01
Copper (DIS) (mg/L)	mg/L	<0.002	05/30/19-07/25/19	O	3	0	< 0.002	< 0 .002					0.002
Iron (DIS) (mg/L)	mg/L	0.08	05/30/19-07/25/19	O	3	2	< 0.02	0.08	0.04	0.03	0.03	0.1	0.04
Lead (DIS) (mg/L)	mg/L	<0.0003	05/30/19-07/25/19	O	3	0	< 0.0003	< 0 .0003					0.0003
Manganese (DIS) (mg/L)	mg/L	0.018	05/30/19-07/25/19	O	3	2	< 0.005	0.018	0.009	0.007	0.007	0.023	0.014
Mercury (DIS) (ug/L)	ug/L	<0.005	05/30/19-07/25/19	O	3	0	< 0.005	< 0 .005					0.005
Molybdenum (DIS) (mg/L)	mg/L	<0.002	05/30/19-07/25/19	O	3	0	< 0.002	< 0 .002					0.002
Nickel (DIS) (mg/L)	mg/L	<0.001	05/30/19-07/25/19	O	3	0	< 0.001	< 0 .001					0
Selenium (DIS) (mg/L)	mg/L	0.0003	05/30/19-07/25/19	O	3	3	0.0003	0.0003	0.0003	0.0003	0	0.0003	0.001
Silver (DIS) (mg/L)	mg/L	<0.0002	05/30/19-07/25/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Strontium (DIS) (mg/L)	mg/L	0.0641	05/30/19-07/25/19	O	3	3	0.0641	0.0704	0.068	0.0698	0.0035	0.075	0.1
Thallium (DIS) (mg/L)	mg/L	0.0002	05/30/19-07/25/19	O	3	3	0.0002	0.0003	0.0003	0.0003	0.0001	0.0005	0.0004
Uranium (DIS) (mg/L)	mg/L	0.0005	05/30/19-07/25/19	O	3	3	0.0004	0.0005	0.0005	0.0005	0.0001	0.0007	0.008
Zinc (DIS) (mg/L)	mg/L	<0.002	05/30/19-07/25/19	O	3	0	< 0.002	< 0 .002					0

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: September 13, 2019

SAMPLE NO BBC-1907-109 | LAB NO: H19070585-003 | STATION: SP-5

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	6.5	08/28/18-07/24/19	O	3	3	6.2	7.4	6.7	6.5	0.6	7.9	0
Field pH (s.u.)	s.u.	8.09	08/28/18-07/24/19	O	3	3	7.28	8.09	7.67	7.67	0.41	8.49	0
Field SC (umhos/cm)	umhos/cm	391	08/28/18-07/24/19	O	3	3	389.0	414.0	397.8	391	13.9	425.6	0
Flow (Gallons Per Min)	allons Per M	2.6	08/28/18-07/24/19	O	3	3	0.6	2.6	1.1	0.9	1.1	3.3	0
Water Temp (Deg C)	Deg C	16.6	08/28/18-07/24/19	O	3	3	5.2	16.6	9.0	8.5	5.9	20.8	0
TDS (mg/L)	mg/L	223	08/28/18-07/24/19	O	3	3	223.0	228.0	225.0	224	2.6	230.2	0
TSS (mg/L)	mg/L	52 J	08/28/18-07/24/19	O	3	3	28.0	137.0	58.4	52	57.3	173.0	0
Alkalinity (mg/L)	mg/L	220	08/28/18-07/24/19	O	3	3	220.0	220.0	220.0	220	0	220.0	0
Calcium (mg/L)	mg/L	63	07/24/19	O	1	1	63.0	63.0	63.0	63	0	63.0	62.1
Chloride (mg/L)	mg/L	<1	08/28/18-07/24/19	O	3	0	< 1	< 1					0
Fluoride (mg/L)	mg/L	0.1	08/28/18-07/24/19	O	3	2	0.1	0.1	0.1	0.1	0	0.1	4
Hardness (mg/L)	mg/L	237	08/28/18-07/24/19	O	3	3	221.0	237.0	227.6	225	8.3	244.2	0
Magnesium (mg/L)	mg/L	19	07/24/19	O	1	1	19.0	19.0	19.0	19	0	19.0	19
Potassium (mg/L)	mg/L	<1	07/24/19	O	1	0	< 1	< 1					1
Sodium (mg/L)	mg/L	2	07/24/19	O	1	1	2.0	2.0	2.0	2	0	2.0	2
Sulfate (mg/L)	mg/L	9	08/28/18-07/24/19	O	3	3	9.0	11.0	10.0	10	1	12.0	0
N+N (mg/L)	mg/L	0.03	08/28/18-07/24/19	O	3	3	0.02	0.04	0.03	0.03	0.01	0.05	10
Aluminum (DIS) (mg/L)	mg/L	<0.009	07/24/19	O	1	0	< 0.009	< 0 .009					0.009
Antimony (DIS) (mg/L)	mg/L	<0.0005	07/24/19	O	1	0	< 0.0005	< 0 .0005					0.0005
Arsenic (DIS) (mg/L)	mg/L	<0.001	07/24/19	O	1	0	< 0.001	< 0 .001					0.001
Barium (DIS) (mg/L)	mg/L	0.057	07/24/19	O	1	1	0.057	0.057	0.057	0.057	0	0.057	0.058
Beryllium (DIS) (mg/L)	mg/L	<0.0008	07/24/19	O	1	0	< 0.0008	< 0 .0008					0.0008
Cadmium (DIS) (mg/L)	mg/L	<0.00003	07/24/19	O	1	0	< 0	< .00003					0
Chromium (DIS) (mg/L)	mg/L	<0.01	07/24/19	O	1	0	< 0.01	< 0 .01					0.01
Cobalt (DIS) (mg/L)	mg/L	<0.01	07/24/19	O	1	0	< 0.01	< 0 .01					0.01
Copper (DIS) (mg/L)	mg/L	<0.002	07/24/19	O	1	0	< 0.002	< 0 .002					0.002
Iron (DIS) (mg/L)	mg/L	<0.02	07/24/19	O	1	0	< 0.02	< 0 .02					0.02
Lead (DIS) (mg/L)	mg/L	<0.0003	07/24/19	O	1	0	< 0.0003	< 0 .0003					0.0003
Manganese (DIS) (mg/L)	mg/L	<0.005	07/24/19	O	1	0	< 0.005	< 0 .005					0.013
Mercury (DIS) (ug/L)	ug/L	<0.005	07/24/19	O	1	0	< 0.005	< 0 .005					0.004
Molybdenum (DIS) (mg/L)	mg/L	<0.002	07/24/19	O	1	0	< 0.002	< 0 .002					0.002
Nickel (DIS) (mg/L)	mg/L	<0.001	07/24/19	O	1	0	< 0.001	< 0 .001					0.001
Selenium (DIS) (mg/L)	mg/L	<0.0002	07/24/19	O	1	0	< 0.0002	< 0 .0002					0.0002
Silver (DIS) (mg/L)	mg/L	<0.0002	07/24/19	O	1	0	< 0.0002	< 0 .0002					0.0002
Strontium (DIS) (mg/L)	mg/L	0.126	07/24/19	O	1	1	0.126	0.126	0.126	0.126	0	0.126	0.138
Thallium (DIS) (mg/L)	mg/L	<0.0002	07/24/19	O	1	0	< 0.0002	< 0 .0002					0.0002
Uranium (DIS) (mg/L)	mg/L	0.0006	07/24/19	O	1	1	0.0006	0.0006	0.0006	0.0006	0	0.0006	0.008
Zinc (DIS) (mg/L)	mg/L	<0.002	07/24/19	O	1	0	< 0.002	< 0 .002					0.002

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: September 13, 2019

SAMPLE NO BBC-1907-117 | LAB NO: H19070585-008 | STATION: SP-6

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	8.75	10/12/11-07/25/19	O	45	45	6.7	282.0	10.52	9.57	39.73	89.98	0
Field pH (s.u.)	s.u.	7.1	10/12/11-07/25/19	O	44	44	5.8	8.7	7.3	7.4	0.6	8.5	0
Field SC (umhos/cm)	umhos/cm	279	10/12/11-07/25/19	O	45	45	188.0	327.0	266.7	269	18.8	304.3	0
Flow (Gallons Per Min)	allons Per M	2.46	10/12/11-07/25/19	O	43	35	0.27	3.5	1.08	1	0.94	2.96	0
Water Temp (Deg C)	Deg C	8	10/12/11-07/25/19	O	44	44	4.4	10.3	7.2	7.6	1.3	9.8	0
TDS (mg/L)	mg/L	160	10/12/11-07/25/19	O	45	45	145.0	188.0	160.9	160	8	176.9	0
TSS (mg/L)	mg/L	<10	08/28/13-07/25/19	O	43	13	< 4	216.0					0
Alkalinity (mg/L)	mg/L	130	10/12/11-07/25/19	O	45	45	120.0	160.0	134.3	130	6.9	148.1	0
Calcium (mg/L)	mg/L	36	05/30/19-07/25/19	O	3	3	32.0	36.0	33.6	33	2.1	37.8	37
Chloride (mg/L)	mg/L	<1	10/12/11-07/25/19	O	45	10	1.0	2.0					0
Fluoride (mg/L)	mg/L	0.2	10/12/11-07/25/19	O	45	45	0.1	0.2	0.2	0.2	0	0.2	4
Hardness (mg/L)	mg/L	146	10/12/11-07/25/19	O	45	45	129.0	160.0	140.4	141	6.7	153.8	0
Magnesium (mg/L)	mg/L	13	05/30/19-07/25/19	O	3	3	12.0	13.0	12.3	12	0.6	13.5	14
Potassium (mg/L)	mg/L	<1	05/30/19-07/25/19	O	3	0	< 1	< 1					1
Sodium (mg/L)	mg/L	2	05/30/19-07/25/19	O	3	3	2.0	2.0	2.0	2	0	2.0	2
Sulfate (mg/L)	mg/L	9	10/12/11-07/25/19	O	45	45	7.0	12.0	9.0	9.3	1.5	12.0	0
N+N (mg/L)	mg/L	0.36	10/12/11-07/25/19	O	45	45	0.31	0.68	0.38	0.37	0.07	0.52	10
Aluminum (DIS) (mg/L)	mg/L	<0.009	05/30/19-07/25/19	O	3	0	< 0.009	< 0 .009					0.03
Antimony (DIS) (mg/L)	mg/L	<0.0005	05/30/19-07/25/19	O	3	0	< 0.0005	< 0 .0005					0.001
Arsenic (DIS) (mg/L)	mg/L	<0.001	05/30/19-07/25/19	O	3	0	< 0.001	< 0 .001					0.001
Barium (DIS) (mg/L)	mg/L	0.208	05/30/19-07/25/19	O	3	3	0.185	0.208	0.195	0.192	0.012	0.219	0.202
Beryllium (DIS) (mg/L)	mg/L	<0.0008	05/30/19-07/25/19	O	3	0	< 0.0008	< 0 .0008					0.001
Cadmium (DIS) (mg/L)	mg/L	<0.00003	05/30/19-07/25/19	O	3	0	< 0	< .00003					0
Chromium (DIS) (mg/L)	mg/L	<0.01	05/30/19-07/25/19	O	3	0	< 0.01	< 0 .01					0.01
Cobalt (DIS) (mg/L)	mg/L	<0.01	05/30/19-07/25/19	O	3	0	< 0.01	< 0 .01					0.01
Copper (DIS) (mg/L)	mg/L	<0.002	05/30/19-07/25/19	O	3	0	< 0.002	< 0 .002					0.002
Iron (DIS) (mg/L)	mg/L	<0.02	05/30/19-07/25/19	O	3	0	< 0.02	< 0 .02					0.08
Lead (DIS) (mg/L)	mg/L	<0.0003	05/30/19-07/25/19	O	3	0	< 0.0003	< 0 .0003					0.0003
Manganese (DIS) (mg/L)	mg/L	<0.005	05/30/19-07/25/19	O	3	0	< 0.005	< 0 .005					0.015
Mercury (DIS) (ug/L)	ug/L	<0.005	05/30/19-07/25/19	O	3	0	< 0.005	< 0 .005					0.001
Molybdenum (DIS) (mg/L)	mg/L	<0.002	05/30/19-07/25/19	O	3	0	< 0.002	< 0 .002					0.002
Nickel (DIS) (mg/L)	mg/L	<0.001	05/30/19-07/25/19	O	3	0	< 0.001	< 0 .001					0
Selenium (DIS) (mg/L)	mg/L	<0.0002	05/30/19-07/25/19	O	3	0	< 0.0002	< 0 .0002					0
Silver (DIS) (mg/L)	mg/L	<0.0002	05/30/19-07/25/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Strontium (DIS) (mg/L)	mg/L	0.0696	05/30/19-07/25/19	O	3	3	0.0696	0.0722	0.0705	0.0697	0.0015	0.0735	0.1
Thallium (DIS) (mg/L)	mg/L	0.0005	05/30/19-07/25/19	O	3	3	0.0004	0.0005	0.0005	0.0005	0.0001	0.0007	0.0006
Uranium (DIS) (mg/L)	mg/L	0.0004	05/30/19-07/25/19	O	3	3	0.0004	0.0004	0.0004	0.0004	0	0.0004	0.008
Zinc (DIS) (mg/L)	mg/L	<0.002	05/30/19-07/25/19	O	3	0	< 0.002	< 0 .002					0

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: September 13, 2019

SAMPLE NO BBC-1907-119 | LAB NO: H19070585-010 | STATION: SP-7

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	2	03/26/15-07/25/19	O	49	49	2.0	11.0	3.7	3.5	1.6	6.9	0
Field pH (s.u.)	s.u.	7.43	03/26/15-07/25/19	O	48	48	6.17	8.18	7.38	7.38	0.32	8.02	0
Field SC (umhos/cm)	umhos/cm	336	03/26/15-07/25/19	O	49	49	196.0	354.0	321.0	330	28.2	377.4	0
Flow (Gallons Per Min)	allons Per M	99.64	03/26/15-07/25/19	O	42	42	6.7	136.0	19.29	16.2	27.21	73.71	0
Water Temp (Deg C)	Deg C	7.3	03/26/15-07/25/19	O	48	48	5.1	7.4	6.5	6.7	0.6	7.7	0
TDS (mg/L)	mg/L	188	03/26/15-07/25/19	O	49	49	173.0	200.0	187.1	187	6.8	200.7	0
TSS (mg/L)	mg/L	<10	03/26/15-07/25/19	O	49	7	< 4	146.0					0
Alkalinity (mg/L)	mg/L	160	03/26/15-07/25/19	O	49	49	160.0	170.0	166.1	170	4.8	175.7	0
Calcium (mg/L)	mg/L	42	05/30/19-07/25/19	O	3	3	40.0	42.0	41.0	41	1	43.0	45
Chloride (mg/L)	mg/L	2	03/26/15-07/25/19	O	49	49	1.0	2.0	1.8	2	0.3	2.4	0
Fluoride (mg/L)	mg/L	0.3	03/26/15-07/25/19	O	49	49	0.3	0.4	0.3	0.3	0	0.3	4
Hardness (mg/L)	mg/L	162	03/26/15-07/25/19	O	49	49	153.0	178.0	167.4	167	5.6	178.6	0
Magnesium (mg/L)	mg/L	14	05/30/19-07/25/19	O	3	3	13.0	14.0	13.7	14	0.6	14.9	16
Potassium (mg/L)	mg/L	3	05/30/19-07/25/19	O	3	3	3.0	3.0	3.0	3	0	3.0	3
Sodium (mg/L)	mg/L	5	05/30/19-07/25/19	O	3	3	5.0	5.0	5.0	5	0	5.0	5
Sulfate (mg/L)	mg/L	10	03/26/15-07/25/19	O	49	49	7.0	12.0	9.7	10	1.2	12.1	0
N+N (mg/L)	mg/L	0.3	03/26/15-07/25/19	O	49	49	0.3	0.4	0.3	0.3	0	0.3	10
Aluminum (DIS) (mg/L)	mg/L	<0.009	05/30/19-07/25/19	O	3	0	< 0.009	< 0 .009					0.009
Antimony (DIS) (mg/L)	mg/L	<0.0005	05/30/19-07/25/19	O	3	0	< 0.0005	< 0 .0005					0.0005
Arsenic (DIS) (mg/L)	mg/L	0.003	05/30/19-07/25/19	O	3	3	0.003	0.004	0.004	0.004	0.001	0.006	0.004
Barium (DIS) (mg/L)	mg/L	0.116	05/30/19-07/25/19	O	3	3	0.113	0.118	0.116	0.116	0.003	0.122	0.118
Beryllium (DIS) (mg/L)	mg/L	<0.0008	05/30/19-07/25/19	O	3	0	< 0.0008	< 0 .0008					0.0008
Cadmium (DIS) (mg/L)	mg/L	<0.00003	05/30/19-07/25/19	O	3	0	< 0	< .00003					0
Chromium (DIS) (mg/L)	mg/L	<0.01	05/30/19-07/25/19	O	3	0	< 0.01	< 0 .01					0.01
Cobalt (DIS) (mg/L)	mg/L	<0.01	05/30/19-07/25/19	O	3	0	< 0.01	< 0 .01					0.01
Copper (DIS) (mg/L)	mg/L	<0.002	05/30/19-07/25/19	O	3	0	< 0.002	< 0 .002					0.002
Iron (DIS) (mg/L)	mg/L	<0.02	05/30/19-07/25/19	O	3	0	< 0.02	< 0 .02					0.02
Lead (DIS) (mg/L)	mg/L	<0.0003	05/30/19-07/25/19	O	3	0	< 0.0003	< 0 .0003					0.0003
Manganese (DIS) (mg/L)	mg/L	<0.005	05/30/19-07/25/19	O	3	0	< 0.005	< 0 .005					0.005
Mercury (DIS) (ug/L)	ug/L	<0.005	05/30/19-07/25/19	O	3	0	< 0.005	< 0 .005					0.005
Molybdenum (DIS) (mg/L)	mg/L	<0.002	05/30/19-07/25/19	O	3	0	< 0.002	< 0 .002					0.002
Nickel (DIS) (mg/L)	mg/L	<0.001	05/30/19-07/25/19	O	3	0	< 0.001	< 0 .001					0.001
Selenium (DIS) (mg/L)	mg/L	0.0003	05/30/19-07/25/19	O	3	3	0.0003	0.0003	0.0003	0.0003	0	0.0003	0.0003
Silver (DIS) (mg/L)	mg/L	<0.0002	05/30/19-07/25/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Strontium (DIS) (mg/L)	mg/L	0.154	05/30/19-07/25/19	O	3	3	0.154	0.171	0.163	0.165	0.009	0.181	0.176
Thallium (DIS) (mg/L)	mg/L	0.001	05/30/19-07/25/19	O	3	3	0.001	0.001	0.001	0.001	0	0.001	0.001
Uranium (DIS) (mg/L)	mg/L	0.0009	05/30/19-07/25/19	O	3	3	0.0009	0.0009	0.0009	0.0009	0	0.0009	0.008
Zinc (DIS) (mg/L)	mg/L	<0.002	05/30/19-07/25/19	O	3	0	< 0.002	< 0 .002					0.002

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: September 13, 2019

SAMPLE NO BBC-1907-122 | LAB NO: H19070583-003 | STATION: SW-1

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	9.16	05/24/11-07/25/19	O	81	81	3.91	15.0	10.87	10.83	1.96	14.79	0
Field pH (s.u.)	s.u.	8.38	05/24/11-07/25/19	O	80	80	5.3	8.71	7.86	8.09	0.65	9.16	0
Field SC (umhos/cm)	umhos/cm	322	05/24/11-07/25/19	O	81	81	176.0	363.0	283.0	310	52.9	388.8	0
Flow (Cubic Ft Sec)	Cubic Ft Se	51.24	05/24/11-07/25/19	O	61	61	0.0	613.0	18.19	30.24	90.04	198.27	0
Staff Gauge (Feet)	Feet	1.2	05/24/11-07/25/19	O	47	47	0.5	13.3	1.1	1	1.7	4.5	0
Water Temp (Deg C)	Deg C	10.9	05/24/11-07/25/19	O	81	81	-1.0	15.5	0.6	4.2	4.7	10.0	0
TDS (mg/L)	mg/L	185 D	05/24/11-07/25/19	O	73	73	107.0	227.0	169.1	182	27.4	223.9	0
TSS (mg/L)	mg/L	4 J	05/30/12-07/25/19	O	69	27	< 4	43.0					0
Alkalinity (mg/L)	mg/L	170	05/24/11-07/25/19	O	73	73	87.0	200.0	152.8	170	30.5	213.8	0
Calcium (mg/L)	mg/L	48	05/30/19-07/25/19	O	3	3	28.0	48.0	38.4	42	10.3	59.0	50
Chloride (mg/L)	mg/L	1	05/24/11-07/25/19	O	73	72	< 1	5.0	1.3	1	0.7	2.7	0
Fluoride (mg/L)	mg/L	0.1	05/24/11-07/25/19	O	73	23	0.1	0.2					4
Hardness (mg/L)	mg/L	167	05/24/11-07/25/19	O	72	71	< 7	199.0	144.8	164	35	214.8	0
Magnesium (mg/L)	mg/L	12	05/30/19-07/25/19	O	3	3	7.0	12.0	9.4	10	2.5	14.4	13
Potassium (mg/L)	mg/L	1	05/30/19-07/25/19	O	3	2	1.0	1.0	1.0	1	0	1.0	2
Sodium (mg/L)	mg/L	2	05/30/19-07/25/19	O	3	3	1.0	2.0	1.6	2	0.6	2.8	3
Sulfate (mg/L)	mg/L	5	05/24/11-07/25/19	O	73	73	2.0	18.0	5.1	5	2.1	9.3	0
N+N (mg/L)	mg/L	<0.01	05/24/11-07/25/19	O	73	34	< 0.01	0.15					10
Phosphorus (mg/L)	mg/L	0.01	05/30/19-07/25/19	O	3	3	0.01	0.02	0.02	0.02	0.01	0.04	0.03
Total N Pers (mg/L)	mg/L	0.12	04/29/15-07/25/19	O	47	43	< 0	1.12	0.13	0.15	0.16	0.45	0
Aluminum (DIS) (mg/L)	mg/L	<0.009	05/30/19-07/25/19	O	3	2	< 0.009	0.062	0.02	0.015	0.029	0.078	0.22
Antimony (TRC) (mg/L)	mg/L	<0.0005	05/30/19-07/25/19	O	3	0	< 0.0005	< 0 .0005					0.003
Arsenic (TRC) (mg/L)	mg/L	<0.001	05/30/19-07/25/19	O	3	0	< 0.001	< 0 .001					0.003
Barium (TRC) (mg/L)	mg/L	0.102	05/30/19-07/25/19	O	3	3	0.081	0.102	0.092	0.095	0.011	0.114	0.118
Beryllium (TRC) (mg/L)	mg/L	<0.0008	05/30/19-07/25/19	O	3	0	< 0.0008	< 0 .0008					0.001
Cadmium (TRC) (mg/L)	mg/L	<0.00003	05/30/19-07/25/19	O	3	0	< 0	< .00003					0.0001
Chromium (TRC) (mg/L)	mg/L	<0.01	05/30/19-07/25/19	O	3	0	< 0.01	< 0 .01					0.01
Cobalt (TRC) (mg/L)	mg/L	<0.01	05/30/19-07/25/19	O	3	0	< 0.01	< 0 .01					0.01
Copper (TRC) (mg/L)	mg/L	<0.002	05/30/19-07/25/19	O	3	0	< 0.002	< 0 .002					0.002
Iron (TRC) (mg/L)	mg/L	0.13	05/30/19-07/25/19	O	3	3	0.13	0.6	0.27	0.26	0.24	0.75	0.86
Lead (TRC) (mg/L)	mg/L	<0.0003	05/30/19-07/25/19	O	3	1	< 0.0003	< 0 .0003					0.0005
Manganese (TRC) (mg/L)	mg/L	0.015	05/30/19-07/25/19	O	3	3	0.015	0.017	0.016	0.015	0.001	0.018	0.03
Mercury (TRC) (ug/L)	ug/L	<0.005	05/30/19-07/25/19	O	3	1	< 0.005	0.011					0
Molybdenum (TRC) (mg/L)	mg/L	<0.002	05/30/19-07/25/19	O	3	0	< 0.002	< 0 .002					0.005
Nickel (TRC) (mg/L)	mg/L	<0.001	05/30/19-07/25/19	O	3	1	< 0.001	< 0 .001					0.01
Selenium (TRC) (mg/L)	mg/L	<0.0002	05/30/19-07/25/19	O	3	0	< 0.0002	< 0 .0002					0.001
Silver (TRC) (mg/L)	mg/L	<0.0002	05/30/19-07/25/19	O	3	0	< 0.0002	< 0 .0002					0.0005
Strontium (TRC) (mg/L)	mg/L	0.136 L	05/30/19-07/25/19	O	3	3	0.09	0.136	0.115	0.124	0.024	0.163	0.131
Thallium (TRC) (mg/L)	mg/L	<0.0002	05/30/19-07/25/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Uranium (TRC) (mg/L)	mg/L	0.0003	05/30/19-07/25/19	O	3	3	0.0002	0.0003	0.0003	0.0003	0.0001	0.0005	0.008
Zinc (TRC) (mg/L)	mg/L	<0.004	05/30/19-07/25/19	O	3	2	0.002	< .004	0.003	0.003	0.001	0.005	0.01

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: September 13, 2019

SAMPLE NO BBC-1907-125 LAB NO: H19070583-006 STATION: SW-14

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
Flow (Cubic Ft Sec)	Cubic Ft Se	4.03	02/25/16-07/25/19	O	34	34	0.0	11.75	0.54	1.1	3.12	6.78	0
Staff Gauge (Feet)	Feet	0.7	04/13/16-07/25/19	O	20	20	0.3	0.8	0.5	0.5	0.2	0.9	0
TDS (mg/L)	mg/L	217 D	04/13/16-07/25/19	O	34	34	175.0	266.0	224.5	226.5	15.9	256.3	0
TSS (mg/L)	mg/L	<4	04/13/16-07/25/19	O	34	5	< 4	15.0					0
Alkalinity (mg/L)	mg/L	200	04/13/16-07/25/19	O	34	34	160.0	220.0	204.8	210	17.1	239.0	0
Calcium (mg/L)	mg/L	55	05/30/19-07/25/19	O	3	3	53.0	55.0	53.7	53	2.5	58.7	59
Chloride (mg/L)	mg/L	2	04/13/16-07/25/19	O	34	34	1.0	4.0	2.0	2	0.6	3.2	0
Fluoride (mg/L)	mg/L	0.2	04/13/16-07/25/19	O	34	34	0.1	0.2	0.2	0.2	0	0.2	4
Hardness (mg/L)	mg/L	206	04/13/16-07/25/19	O	34	34	153.0	239.0	211.2	213.5	17.7	246.6	0
Magnesium (mg/L)	mg/L	17	05/30/19-07/25/19	O	3	3	17.0	19.0	17.6	17	1	19.6	21
Potassium (mg/L)	mg/L	1	05/30/19-07/25/19	O	3	3	1.0	1.0	1.0	1	0	1.0	1
Sodium (mg/L)	mg/L	2	05/30/19-07/25/19	O	3	3	2.0	2.0	2.0	2	0	2.0	3
Sulfate (mg/L)	mg/L	6	04/13/16-07/25/19	O	34	34	6.0	19.0	9.0	8.9	2.8	14.6	0
N+N (mg/L)	mg/L	<0.01	04/13/16-07/25/19	O	34	32	0.01	0.27	0.06	0.08	0.08	0.22	10
Phosphorus (mg/L)	mg/L	0.005	05/30/19-07/25/19	O	3	3	0.005	0.011	0.008	0.008	0.002	0.012	0.012
Total N Pers (mg/L)	mg/L	0.11	04/13/16-07/25/19	O	31	30	< 0	1.25	0.18	0.2	0.22	0.62	0
Aluminum (DIS) (mg/L)	mg/L	0.021 J	05/30/19-07/25/19	O	3	1	< 0.009	0.021					0.015
Antimony (TRC) (mg/L)	mg/L	<0.0005	05/30/19-07/25/19	O	3	0	< 0.0005	< 0 .0005					0.0005
Arsenic (TRC) (mg/L)	mg/L	<0.001	05/30/19-07/25/19	O	3	0	< 0.001	< 0 .001					0.001
Barium (TRC) (mg/L)	mg/L	0.109	05/30/19-07/25/19	O	3	3	0.103	0.112	0.108	0.109	0.004	0.116	0.12
Beryllium (TRC) (mg/L)	mg/L	<0.0008	05/30/19-07/25/19	O	3	0	< 0.0008	< 0 .0008					0.0008
Cadmium (TRC) (mg/L)	mg/L	<0.00003	05/30/19-07/25/19	O	3	0	< 0	< .00003					0
Chromium (TRC) (mg/L)	mg/L	<0.01	05/30/19-07/25/19	O	3	0	< 0.01	< 0 .01					0.01
Cobalt (TRC) (mg/L)	mg/L	<0.01	05/30/19-07/25/19	O	3	0	< 0.01	< 0 .01					0.01
Copper (TRC) (mg/L)	mg/L	<0.002	05/30/19-07/25/19	O	3	0	< 0.002	< 0 .002					0.002
Iron (TRC) (mg/L)	mg/L	0.07	05/30/19-07/25/19	O	3	3	0.06	0.11	0.08	0.07	0.02	0.12	0.15
Lead (TRC) (mg/L)	mg/L	<0.0003	05/30/19-07/25/19	O	3	0	< 0.0003	< 0 .0003					0.0003
Manganese (TRC) (mg/L)	mg/L	0.007	05/30/19-07/25/19	O	3	3	0.005	0.007	0.006	0.007	0.001	0.008	0.007
Mercury (TRC) (ug/L)	ug/L	<0.005	05/30/19-07/25/19	O	3	1	< 0.005	< 0 .005					0.005
Molybdenum (TRC) (mg/L)	mg/L	<0.002	05/30/19-07/25/19	O	3	0	< 0.002	< 0 .002					0.002
Nickel (TRC) (mg/L)	mg/L	<0.001	05/30/19-07/25/19	O	3	0	< 0.001	< 0 .001					0.002
Selenium (TRC) (mg/L)	mg/L	<0.0002	05/30/19-07/25/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Silver (TRC) (mg/L)	mg/L	<0.0002	05/30/19-07/25/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Strontium (TRC) (mg/L)	mg/L	0.125 L	05/30/19-07/25/19	O	3	3	0.115	0.127	0.122	0.125	0.006	0.134	0.133
Thallium (TRC) (mg/L)	mg/L	<0.0002	05/30/19-07/25/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Uranium (TRC) (mg/L)	mg/L	0.0004	05/30/19-07/25/19	O	3	3	0.0004	0.0005	0.0005	0.0005	0.0001	0.0007	0.008
Zinc (TRC) (mg/L)	mg/L	<0.04	05/30/19-07/25/19	O	3	0	< 0	< .04					0

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: September 13, 2019

SAMPLE NO BBC-1907-123 | LAB NO: H19070583-004 | STATION: SW-17

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	8.71	01/17/18-07/25/19	O	15	15	8.46	12.9	10.33	10.56	1.11	12.55	0
Field pH (s.u.)	s.u.	8.09	01/17/18-07/25/19	O	15	15	7.47	8.41	8.07	8.09	0.23	8.53	0
Field SC (umhos/cm)	umhos/cm	462	01/17/18-07/25/19	O	15	15	319.0	487.0	428.0	437	41.5	511.0	0
Flow (Cubic Ft Sec)	Cubic Ft Se	0.15	01/17/18-07/25/19	O	11	11	0.0	1.8	0.08	0.19	0.56	1.2	0
Water Temp (Deg C)	Deg C	11.6	01/17/18-07/25/19	O	15	15	0.0	13.9	2.2	7	5	12.2	0
TDS (mg/L)	mg/L	266 D	01/17/18-07/25/19	O	16	16	197.0	314.0	253.5	257	27.8	309.1	0
TDS (mg/L)	mg/L	266 D	01/17/18-07/25/19	DUP	16	16	197.0	314.0	253.5	257	27.8	309.1	0
TSS (mg/L)	mg/L	19 J	01/17/18-07/25/19	O	16	7	< 4	19.0					0
TSS (mg/L)	mg/L	12 J	01/17/18-07/25/19	DUP	16	7	< 4	19.0					0
Alkalinity (mg/L)	mg/L	230	01/17/18-07/25/19	O	16	16	150.0	230.0	201.6	210	17.9	237.4	0
Alkalinity (mg/L)	mg/L	230	01/17/18-07/25/19	DUP	16	16	150.0	230.0	201.6	210	17.9	237.4	0
Calcium (mg/L)	mg/L	61	05/30/19-07/25/19	DUP	3	3	45.0	60.0	53.3	56	7.3	67.9	60.9
Calcium (mg/L)	mg/L	60	05/30/19-07/25/19	O	3	3	45.0	60.0	53.3	56	7.3	67.9	60.9
Chloride (mg/L)	mg/L	4	01/17/18-07/25/19	O	16	16	3.0	14.0	4.4	4	2.4	9.2	0
Chloride (mg/L)	mg/L	4	01/17/18-07/25/19	DUP	16	16	3.0	14.0	4.4	4	2.4	9.2	0
Fluoride (mg/L)	mg/L	0.2	01/17/18-07/25/19	O	16	16	0.1	0.2	0.2	0.2	0	0.2	4
Fluoride (mg/L)	mg/L	0.2	01/17/18-07/25/19	DUP	16	16	0.1	0.2	0.2	0.2	0	0.2	4
Hardness (mg/L)	mg/L	250	01/17/18-07/25/19	DUP	16	16	167.0	262.0	231.8	240.5	21.9	275.6	0
Hardness (mg/L)	mg/L	247	01/17/18-07/25/19	O	16	16	167.0	262.0	231.8	240.5	21.9	275.6	0
Magnesium (mg/L)	mg/L	24	05/30/19-07/25/19	DUP	3	3	20.0	23.0	22.0	23	1.7	25.4	25
Magnesium (mg/L)	mg/L	23	05/30/19-07/25/19	O	3	3	20.0	23.0	22.0	23	1.7	25.4	25
Potassium (mg/L)	mg/L	<1	05/30/19-07/25/19	DUP	3	2	1.0	1.0	1.0	1	0	1.0	1
Potassium (mg/L)	mg/L	1	05/30/19-07/25/19	O	3	2	1.0	1.0	1.0	1	0	1.0	1
Sodium (mg/L)	mg/L	3	05/30/19-07/25/19	DUP	3	3	2.0	3.0	2.6	3	0.5	3.6	3
Sodium (mg/L)	mg/L	3	05/30/19-07/25/19	O	3	3	2.0	3.0	2.6	3	0.5	3.6	3
Sulfate (mg/L)	mg/L	20	01/17/18-07/25/19	O	16	16	12.0	44.0	26.9	29.5	7.9	42.7	0
Sulfate (mg/L)	mg/L	20	01/17/18-07/25/19	DUP	16	16	12.0	44.0	26.9	29.5	7.9	42.7	0
N+N (mg/L)	mg/L	0.11	01/17/18-07/25/19	DUP	16	15	< 0.01	0.19	0.07	0.09	0.06	0.19	10
N+N (mg/L)	mg/L	0.11	01/17/18-07/25/19	O	16	15	< 0.01	0.19	0.07	0.09	0.06	0.19	10
Phosphorus (mg/L)	mg/L	0.013	05/30/19-07/25/19	DUP	3	3	0.01	0.025	0.014	0.011	0.007	0.028	0.024
Phosphorus (mg/L)	mg/L	0.011	05/30/19-07/25/19	O	3	3	0.01	0.025	0.014	0.011	0.007	0.028	0.024
Total N Pers (mg/L)	mg/L	0.35	04/12/18-07/25/19	DUP	13	13	0.12	0.49	0.24	0.24	0.11	0.46	0
Total N Pers (mg/L)	mg/L	0.37	04/12/18-07/25/19	O	13	13	0.12	0.49	0.24	0.24	0.11	0.46	0
Aluminum (DIS) (mg/L)	mg/L	0.021 J	05/30/19-07/25/19	O	3	1	< 0.009	0.021					0.015
Aluminum (DIS) (mg/L)	mg/L	<0.009	05/30/19-07/25/19	DUP	3	1	< 0.009	0.021					0.015
Antimony (TRC) (mg/L)	mg/L	<0.0005	05/30/19-07/25/19	DUP	3	0	< 0.0005	< 0 .0005					0.0005
Antimony (TRC) (mg/L)	mg/L	<0.0005	05/30/19-07/25/19	O	3	0	< 0.0005	< 0 .0005					0.0005
Arsenic (TRC) (mg/L)	mg/L	<0.001	05/30/19-07/25/19	DUP	3	0	< 0.001	< 0 .001					0.001
Arsenic (TRC) (mg/L)	mg/L	<0.001	05/30/19-07/25/19	O	3	0	< 0.001	< 0 .001					0.001
Barium (TRC) (mg/L)	mg/L	0.157	05/30/19-07/25/19	DUP	3	3	0.122	0.157	0.143	0.152	0.017	0.177	0.16
Barium (TRC) (mg/L)	mg/L	0.157	05/30/19-07/25/19	O	3	3	0.122	0.157	0.143	0.152	0.017	0.177	0.16
Beryllium (TRC) (mg/L)	mg/L	<0.0008	05/30/19-07/25/19	DUP	3	0	< 0.0008	< 0 .0008					0.0008
Beryllium (TRC) (mg/L)	mg/L	<0.0008	05/30/19-07/25/19	O	3	0	< 0.0008	< 0 .0008					0.0008
Cadmium (TRC) (mg/L)	mg/L	<0.00003	05/30/19-07/25/19	DUP	3	0	< 0	< .00003					0
Cadmium (TRC) (mg/L)	mg/L	<0.00003	05/30/19-07/25/19	O	3	0	< 0	< .00003					0
Chromium (TRC) (mg/L)	mg/L	<0.01	05/30/19-07/25/19	O	3	0	< 0.01	< 0 .01					0.01
Chromium (TRC) (mg/L)	mg/L	<0.01	05/30/19-07/25/19	DUP	3	0	< 0.01	< 0 .01					0.01

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Cobalt (TRC) (mg/L)	mg/L	<0.01	05/30/19-07/25/19	DUP	3	0	< 0.01	< 0 .01					0.01
Cobalt (TRC) (mg/L)	mg/L	<0.01	05/30/19-07/25/19	O	3	0	< 0.01	< 0 .01					0.01
Copper (TRC) (mg/L)	mg/L	<0.002	05/30/19-07/25/19	O	3	0	< 0.002	< 0 .002					0.002
Copper (TRC) (mg/L)	mg/L	<0.002	05/30/19-07/25/19	DUP	3	0	< 0.002	< 0 .002					0.002
Iron (TRC) (mg/L)	mg/L	0.37	05/30/19-07/25/19	O	3	3	0.16	0.37	0.26	0.31	0.1	0.46	0.36
Iron (TRC) (mg/L)	mg/L	0.36	05/30/19-07/25/19	DUP	3	3	0.16	0.37	0.26	0.31	0.1	0.46	0.36
Lead (TRC) (mg/L)	mg/L	<0.0003	05/30/19-07/25/19	O	3	0	< 0.0003	< 0 .0003					0.0003
Lead (TRC) (mg/L)	mg/L	<0.0003	05/30/19-07/25/19	DUP	3	0	< 0.0003	< 0 .0003					0.0003
Manganese (TRC) (mg/L)	mg/L	0.041	05/30/19-07/25/19	O	3	3	0.016	0.041	0.028	0.032	0.012	0.052	0.041
Manganese (TRC) (mg/L)	mg/L	0.041	05/30/19-07/25/19	DUP	3	3	0.016	0.041	0.028	0.032	0.012	0.052	0.041
Mercury (TRC) (ug/L)	ug/L	0.007	05/30/19-07/25/19	DUP	3	3	0.007	0.007	0.007	0.007	0	0.007	0.007
Mercury (TRC) (ug/L)	ug/L	0.007	05/30/19-07/25/19	O	3	3	0.007	0.007	0.007	0.007	0	0.007	0.007
Molybdenum (TRC) (mg/L)	mg/L	<0.002	05/30/19-07/25/19	O	3	0	< 0.002	< 0 .002					0.002
Molybdenum (TRC) (mg/L)	mg/L	<0.002	05/30/19-07/25/19	DUP	3	0	< 0.002	< 0 .002					0.002
Nickel (TRC) (mg/L)	mg/L	<0.001	05/30/19-07/25/19	DUP	3	0	< 0.001	< 0 .001					0.002
Nickel (TRC) (mg/L)	mg/L	<0.001	05/30/19-07/25/19	O	3	0	< 0.001	< 0 .001					0.002
Selenium (TRC) (mg/L)	mg/L	<0.0002	05/30/19-07/25/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Selenium (TRC) (mg/L)	mg/L	<0.0002	05/30/19-07/25/19	DUP	3	0	< 0.0002	< 0 .0002					0.0002
Silver (TRC) (mg/L)	mg/L	<0.0002	05/30/19-07/25/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Silver (TRC) (mg/L)	mg/L	<0.0002	05/30/19-07/25/19	DUP	3	0	< 0.0002	< 0 .0002					0.0002
Strontium (TRC) (mg/L)	mg/L	0.169 L	05/30/19-07/25/19	DUP	3	3	0.111	0.172	0.14	0.145	0.028	0.196	0.169
Strontium (TRC) (mg/L)	mg/L	0.172 L	05/30/19-07/25/19	O	3	3	0.111	0.172	0.14	0.145	0.028	0.196	0.169
Thallium (TRC) (mg/L)	mg/L	<0.0002	05/30/19-07/25/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Thallium (TRC) (mg/L)	mg/L	<0.0002	05/30/19-07/25/19	DUP	3	0	< 0.0002	< 0 .0002					0.0002
Uranium (TRC) (mg/L)	mg/L	0.0005	05/30/19-07/25/19	O	3	3	0.0005	0.0008	0.0006	0.0005	0.0001	0.0008	0.008
Uranium (TRC) (mg/L)	mg/L	0.0005	05/30/19-07/25/19	DUP	3	3	0.0005	0.0008	0.0006	0.0005	0.0001	0.0008	0.008
Zinc (TRC) (mg/L)	mg/L	0.005 L	05/30/19-07/25/19	DUP	3	2	< 0.002	0.005	0.003	0.004	0.001	0.005	0.006
Zinc (TRC) (mg/L)	mg/L	0.005 L	05/30/19-07/25/19	O	3	2	< 0.002	0.005	0.003	0.004	0.001	0.005	0.006

SAMPLE NO BBC-1907-111 LAB NO: z

STATION: SW-18

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
Flow (Cubic Ft Sec)	Cubic Ft Se	Dry	N/A	OBS	0					0.004		0.005	0

SAMPLE NO BBC-1907-105 LAB NO: z

STATION: SW-19

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	8.48	N/A	OBS	0					0.004		0.005	0
Field pH (s.u.)	s.u.	8.29	N/A	OBS	0					0.004		0.005	0
Field SC (umhos/cm)	umhos/cm	392	N/A	OBS	0					0.004		0.005	0
Flow (Cubic Ft Sec)	Cubic Ft Se	0.26	N/A	OBS	0					0.004		0.005	0
Water Temp (Deg C)	Deg C	13.5	N/A	OBS	0					0.004		0.005	0

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: September 13, 2019

SAMPLE NO BBC-1907-126 | LAB NO: H19070583-007 | STATION: SW-2

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
Flow (Cubic Ft Sec)	Cubic Ft Se	43.96	05/24/11-07/25/19	O	52	52	0.0	250.0	11.25	20.49	49.67	110.59	0
Staff Gauge (Feet)	Feet	0.75	05/24/11-07/25/19	O	42	42	0.21	1.75	0.66	0.68	0.44	1.54	0
TDS (mg/L)	mg/L	179 D	05/24/11-07/25/19	O	73	73	112.0	223.0	164.9	173	25.6	216.1	0
TSS (mg/L)	mg/L	<4	05/30/12-07/25/19	O	69	20	< 4	105.0					0
Alkalinity (mg/L)	mg/L	170	05/24/11-07/25/19	O	73	73	80.0	200.0	150.1	160	27.7	205.5	0
Calcium (mg/L)	mg/L	48	05/30/19-07/25/19	O	3	3	28.0	48.0	38.1	41	10.1	58.3	51
Chloride (mg/L)	mg/L	1	05/24/11-07/25/19	O	73	71	1.0	5.0	1.3	1	0.7	2.7	0
Fluoride (mg/L)	mg/L	<0.1	05/24/11-07/25/19	O	73	1	< 0.1	0.4					4
Hardness (mg/L)	mg/L	166	05/24/11-07/25/19	O	73	72	< 7	202.0	143.7	164	33	209.7	0
Magnesium (mg/L)	mg/L	11	05/30/19-07/25/19	O	3	3	7.0	11.0	9.2	10	2.1	13.4	13
Potassium (mg/L)	mg/L	1	05/30/19-07/25/19	O	3	2	1.0	1.0	1.0	1	0	1.0	1
Sodium (mg/L)	mg/L	2	05/30/19-07/25/19	O	3	3	2.0	2.0	2.0	2	0	2.0	2
Sulfate (mg/L)	mg/L	5	05/24/11-07/25/19	O	73	73	2.0	9.0	4.9	5	1.5	7.9	0
N+N (mg/L)	mg/L	<0.01	05/24/11-07/25/19	O	73	34	< 0.01	0.12					10
Phosphorus (mg/L)	mg/L	0.004	05/30/19-07/25/19	O	3	3	0.004	0.017	0.01	0.013	0.007	0.024	0.021
Total N Pers (mg/L)	mg/L	0.06	04/29/15-07/25/19	O	47	41	< 0	1.39	0.1	0.1	0.24	0.58	0
Aluminum (DIS) (mg/L)	mg/L	<0.009	05/30/19-07/25/19	O	3	2	< 0.009	0.051	0.018	0.012	0.023	0.064	0.14
Antimony (TRC) (mg/L)	mg/L	<0.0005	05/30/19-07/25/19	O	3	0	< 0.0005	< 0 .0005					0.003
Arsenic (TRC) (mg/L)	mg/L	<0.001	05/30/19-07/25/19	O	3	0	< 0.001	< 0 .001					0.003
Barium (TRC) (mg/L)	mg/L	0.086	05/30/19-07/25/19	O	3	3	0.073	0.086	0.079	0.078	0.007	0.093	0.107
Beryllium (TRC) (mg/L)	mg/L	<0.0008	05/30/19-07/25/19	O	3	0	< 0.0008	< 0 .0008					0.001
Cadmium (TRC) (mg/L)	mg/L	<0.00003	05/30/19-07/25/19	O	3	0	< 0	< .00003					0.0001
Chromium (TRC) (mg/L)	mg/L	<0.01	05/30/19-07/25/19	O	3	0	< 0.01	< 0 .01					0.01
Cobalt (TRC) (mg/L)	mg/L	<0.01	05/30/19-07/25/19	O	3	0	< 0.01	< 0 .01					0.01
Copper (TRC) (mg/L)	mg/L	<0.002	05/30/19-07/25/19	O	3	0	< 0.002	< 0 .002					0.002
Iron (TRC) (mg/L)	mg/L	0.09	05/30/19-07/25/19	O	3	3	0.09	0.55	0.22	0.23	0.24	0.7	0.6
Lead (TRC) (mg/L)	mg/L	<0.0003	05/30/19-07/25/19	O	3	0	< 0.0003	< 0 .0003					0.0005
Manganese (TRC) (mg/L)	mg/L	0.008	05/30/19-07/25/19	O	3	3	0.008	0.012	0.01	0.011	0.002	0.014	0.019
Mercury (TRC) (ug/L)	ug/L	<0.005	05/30/19-07/25/19	O	3	1	< 0.005	0.01					0
Molybdenum (TRC) (mg/L)	mg/L	<0.002	05/30/19-07/25/19	O	3	0	< 0.002	< 0 .002					0.005
Nickel (TRC) (mg/L)	mg/L	<0.001	05/30/19-07/25/19	O	3	1	< 0.001	< 0 .001					0.01
Selenium (TRC) (mg/L)	mg/L	<0.0002	05/30/19-07/25/19	O	3	0	< 0.0002	< 0 .0002					0.001
Silver (TRC) (mg/L)	mg/L	<0.0002	05/30/19-07/25/19	O	3	0	< 0.0002	< 0 .0002					0.0005
Strontium (TRC) (mg/L)	mg/L	0.139 L	05/30/19-07/25/19	O	3	3	0.095	0.139	0.118	0.126	0.023	0.164	0.138
Thallium (TRC) (mg/L)	mg/L	<0.0002	05/30/19-07/25/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Uranium (TRC) (mg/L)	mg/L	0.0003	05/30/19-07/25/19	O	3	3	0.0002	0.0003	0.0003	0.0003	0.0001	0.0005	0.008
Zinc (TRC) (mg/L)	mg/L	<0.004	05/30/19-07/25/19	O	3	2	0.002	< .004	0.003	0.004	0.001	0.005	0.01

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: September 13, 2019

SAMPLE NO BBC-1907-110 LAB NO: H19070583-002 STATION: SW-3

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	8.09	05/24/11-07/24/19	O	34	34	5.95	12.87	9.82	9.85	1.56	12.94	0
Field pH (s.u.)	s.u.	8.34	05/24/11-07/24/19	O	34	34	7.92	8.7	8.28	8.32	0.16	8.6	0
Field SC (umhos/cm)	umhos/cm	414	05/24/11-07/24/19	O	34	34	269.0	423.0	375.3	385	36	447.3	0
Flow (Cubic Ft Sec)	Cubic Ft Se	0.122	05/24/11-07/24/19	O	30	30	0.034	4.9	0.166	0.137	0.826	1.818	0
Staff Gauge (Feet)	Feet	0.12	08/25/11-07/24/19	O	18	18	0.11	0.96	0.34	0.44	0.22	0.78	0
Water Temp (Deg C)	Deg C	14.4	05/24/11-07/24/19	O	34	34	0.0	14.5	3.5	9.4	4.8	13.1	0
TDS (mg/L)	mg/L	236 D	05/24/11-07/24/19	O	32	32	152.0	255.0	217.7	222	17.7	253.1	0
TSS (mg/L)	mg/L	6 J	05/30/12-07/24/19	O	29	12	< 4	14.0					0
Alkalinity (mg/L)	mg/L	210	05/24/11-07/24/19	O	32	32	150.0	210.0	196.1	200	13.1	222.3	0
Calcium (mg/L)	mg/L	52	05/30/19-07/24/19	O	3	3	44.0	52.0	46.5	44	4.6	55.7	50
Chloride (mg/L)	mg/L	3	05/24/11-07/24/19	O	32	30	1.0	3.0	1.5	2	0.6	2.7	0
Fluoride (mg/L)	mg/L	0.2	05/24/11-07/24/19	O	32	32	0.1	0.2	0.2	0.2	0	0.2	4
Hardness (mg/L)	mg/L	228	05/24/11-07/24/19	O	32	32	139.0	234.0	206.7	214	18.7	244.1	0
Magnesium (mg/L)	mg/L	24	05/30/19-07/24/19	O	3	3	21.0	24.0	22.0	21	1.7	25.4	25
Potassium (mg/L)	mg/L	1	05/30/19-07/24/19	O	3	1	1.0	1.0					1
Sodium (mg/L)	mg/L	2	05/30/19-07/24/19	O	3	3	2.0	2.0	2.0	2	0	2.0	2
Sulfate (mg/L)	mg/L	18	05/24/11-07/24/19	O	32	32	5.0	26.0	15.7	17	5	25.7	0
N+N (mg/L)	mg/L	0.02	05/24/11-07/24/19	O	32	26	< 0.01	0.12	0.04	0.05	0.03	0.1	10
Phosphorus (mg/L)	mg/L	0.015	05/30/19-07/24/19	O	3	3	0.006	0.015	0.009	0.009	0.005	0.019	0.02
Total N Pers (mg/L)	mg/L	0.12	06/24/15-07/24/19	O	19	18	< 0.04	0.6	0.13	0.12	0.11	0.35	0
Aluminum (DIS) (mg/L)	mg/L	0.018 J	05/30/19-07/24/19	O	3	1	< 0.009	0.018					0.09
Antimony (TRC) (mg/L)	mg/L	<0.0005	05/30/19-07/24/19	O	3	0	< 0.0005	< 0 .0005					0.003
Arsenic (TRC) (mg/L)	mg/L	<0.001	05/30/19-07/24/19	O	3	0	< 0.001	< 0 .001					0.003
Barium (TRC) (mg/L)	mg/L	0.169	05/30/19-07/24/19	O	3	3	0.133	0.169	0.149	0.146	0.018	0.185	0.168
Beryllium (TRC) (mg/L)	mg/L	<0.0008	05/30/19-07/24/19	O	3	0	< 0.0008	< 0 .0008					0.001
Cadmium (TRC) (mg/L)	mg/L	<0.00003	05/30/19-07/24/19	O	3	0	< 0	< .00003					0.0001
Chromium (TRC) (mg/L)	mg/L	<0.01	05/30/19-07/24/19	O	3	0	< 0.01	< 0 .01					0.01
Cobalt (TRC) (mg/L)	mg/L	<0.01	05/30/19-07/24/19	O	3	0	< 0.01	< 0 .01					0.01
Copper (TRC) (mg/L)	mg/L	<0.002	05/30/19-07/24/19	O	3	0	< 0.002	< 0 .002					0.002
Iron (TRC) (mg/L)	mg/L	0.19	05/30/19-07/24/19	O	3	3	0.03	0.19	0.07	0.07	0.08	0.23	0.35
Lead (TRC) (mg/L)	mg/L	<0.0003	05/30/19-07/24/19	O	3	0	< 0.0003	< 0 .0003					0.0009
Manganese (TRC) (mg/L)	mg/L	<0.005	05/30/19-07/24/19	O	3	0	< 0.005	< 0 .005					0
Mercury (TRC) (ug/L)	ug/L	<0.005	05/30/19-07/24/19	O	3	0	< 0.005	< 0 .005					0
Molybdenum (TRC) (mg/L)	mg/L	<0.002	05/30/19-07/24/19	O	3	0	< 0.002	< 0 .002					0.005
Nickel (TRC) (mg/L)	mg/L	<0.001	05/30/19-07/24/19	O	3	0	< 0.001	< 0 .001					0.01
Selenium (TRC) (mg/L)	mg/L	<0.0002	05/30/19-07/24/19	O	3	0	< 0.0002	< 0 .0002					0.001
Silver (TRC) (mg/L)	mg/L	<0.0002	05/30/19-07/24/19	O	3	0	< 0.0002	< 0 .0002					0.0005
Strontium (TRC) (mg/L)	mg/L	0.122 L	05/30/19-07/24/19	O	3	3	0.1	0.122	0.11	0.11	0.011	0.132	0.12
Thallium (TRC) (mg/L)	mg/L	<0.0002	05/30/19-07/24/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Uranium (TRC) (mg/L)	mg/L	0.0006	05/30/19-07/24/19	O	3	3	0.0006	0.0006	0.0006	0.0006	0	0.0006	0.008
Zinc (TRC) (mg/L)	mg/L	0.009 L	05/30/19-07/24/19	O	3	2	0.002	0.009	0.003	0.002	0.004	0.011	0.01

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: September 13, 2019

SAMPLE NO BBC-1907-107 LAB NO: H19070583-001 STATION: SW-4

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	7.2	05/25/11-07/24/19	O	5	5	7.2	10.1	9.0	9.6	1.9	12.8	0
Field pH (s.u.)	s.u.	8	05/25/11-07/24/19	O	5	5	7.8	8.2	8.0	8	0.2	8.4	0
Field SC (umhos/cm)	umhos/cm	367	05/25/11-07/24/19	O	5	5	296.0	386.0	352.9	361.6	31.5	415.9	0
Flow (Cubic Ft Sec)	Cubic Ft Se	0.012	05/25/11-07/24/19	O	5	5	0.012	2.0	0.098	0.04	0.373	0.844	0
Water Temp (Deg C)	Deg C	14.1	05/25/11-07/24/19	O	5	5	1.0	14.1	7.0	10.4	5.2	17.4	0
TDS (mg/L)	mg/L	211 D	07/24/19	O	1	1	211.0	211.0	211.0	211	0	211.0	0
TSS (mg/L)	mg/L	8 J	07/24/19	O	1	1	8.0	8.0	8.0	8	0	8.0	0
Alkalinity (mg/L)	mg/L	190	07/24/19	O	1	1	190.0	190.0	190.0	190	0	190.0	0
Calcium (mg/L)	mg/L	47	07/24/19	O	1	1	47.0	47.0	47.0	47	0	47.0	-1
Chloride (mg/L)	mg/L	<1	07/24/19	O	1	0	< 1	< 1					0
Fluoride (mg/L)	mg/L	0.1	07/24/19	O	1	1	0.1	0.1	0.1	0.1	0	0.1	4
Hardness (mg/L)	mg/L	197	07/24/19	O	1	1	197.0	197.0	197.0	197	0	197.0	0
Magnesium (mg/L)	mg/L	19	07/24/19	O	1	1	19.0	19.0	19.0	19	0	19.0	-1
Potassium (mg/L)	mg/L	1	07/24/19	O	1	1	1.0	1.0	1.0	1	0	1.0	-1
Sodium (mg/L)	mg/L	3	07/24/19	O	1	1	3.0	3.0	3.0	3	0	3.0	-1
Sulfate (mg/L)	mg/L	9	07/24/19	O	1	1	9.0	9.0	9.0	9	0	9.0	0
N+N (mg/L)	mg/L	0.08	07/24/19	O	1	1	0.08	0.08	0.08	0.08	0	0.08	10
Phosphorus (mg/L)	mg/L	0.045	07/24/19	O	1	1	0.045	0.045	0.045	0.045	0	0.045	-1
Total N Pers (mg/L)	mg/L	0.22	07/24/19	O	1	1	0.22	0.22	0.22	0.22	0	0.22	0
Aluminum (DIS) (mg/L)	mg/L	<0.009	07/24/19	O	1	0	< 0.009	< 0 .009					-1
Antimony (TRC) (mg/L)	mg/L	<0.0005	07/24/19	O	1	0	< 0.0005	< 0 .0005					-1
Arsenic (TRC) (mg/L)	mg/L	<0.001	07/24/19	O	1	0	< 0.001	< 0 .001					-1
Barium (TRC) (mg/L)	mg/L	0.148	07/24/19	O	1	1	0.148	0.148	0.148	0.148	0	0.148	-1
Beryllium (TRC) (mg/L)	mg/L	<0.0008	07/24/19	O	1	0	< 0.0008	< 0 .0008					-1
Cadmium (TRC) (mg/L)	mg/L	<0.00003	07/24/19	O	1	0	< 0	< .00003					-1
Chromium (TRC) (mg/L)	mg/L	<0.01	07/24/19	O	1	0	< 0.01	< 0 .01					-1
Cobalt (TRC) (mg/L)	mg/L	<0.01	07/24/19	O	1	0	< 0.01	< 0 .01					-1
Copper (TRC) (mg/L)	mg/L	<0.002	07/24/19	O	1	0	< 0.002	< 0 .002					-1
Iron (TRC) (mg/L)	mg/L	0.39	07/24/19	O	1	1	0.39	0.39	0.39	0.39	0	0.39	-1
Lead (TRC) (mg/L)	mg/L	<0.0003	07/24/19	O	1	0	< 0.0003	< 0 .0003					-1
Manganese (TRC) (mg/L)	mg/L	0.027	07/24/19	O	1	1	0.027	0.027	0.027	0.027	0	0.027	-1
Mercury (TRC) (ug/L)	ug/L	<0.005	07/24/19	O	1	0	< 0.005	< 0 .005					-1
Molybdenum (TRC) (mg/L)	mg/L	<0.002	07/24/19	O	1	0	< 0.002	< 0 .002					-1
Nickel (TRC) (mg/L)	mg/L	<0.001	07/24/19	O	1	0	< 0.001	< 0 .001					-1
Selenium (TRC) (mg/L)	mg/L	<0.0002	07/24/19	O	1	0	< 0.0002	< 0 .0002					-1
Silver (TRC) (mg/L)	mg/L	<0.0002	07/24/19	O	1	0	< 0.0002	< 0 .0002					-1
Strontium (TRC) (mg/L)	mg/L	0.186 L	07/24/19	O	1	1	0.186	0.186	0.186	0.186	0	0.186	-1
Thallium (TRC) (mg/L)	mg/L	<0.0002	07/24/19	O	1	0	< 0.0002	< 0 .0002					-1
Uranium (TRC) (mg/L)	mg/L	0.0007	07/24/19	O	1	1	0.0007	0.0007	0.0007	0.0007	0	0.0007	-1
Zinc (TRC) (mg/L)	mg/L	<0.02	07/24/19	O	1	0	< 0.02	< 0 .02					-1

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: September 13, 2019

SAMPLE NO BBC-1907-127 | LAB NO: H19070583-008 | STATION: USGS-SC1

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
Flow (Cubic Ft Sec)	Cubic Ft Se	39.73	05/05/14-07/25/19	O	41	41	0.0	111.32	8.2	18.8	36.73	81.66	0
TDS (mg/L)	mg/L	188 D	03/24/14-07/25/19	O	61	61	132.0	230.0	187.9	195	19.9	227.7	0
TSS (mg/L)	mg/L	<4	03/24/14-07/25/19	O	61	17	< 4	38.0					0
Alkalinity (mg/L)	mg/L	180	03/24/14-07/25/19	O	61	61	120.0	220.0	175.0	180	21.4	217.8	0
Calcium (mg/L)	mg/L	50	05/30/19-07/25/19	O	3	3	37.0	50.0	43.7	45	6.6	56.9	56
Chloride (mg/L)	mg/L	1	03/24/14-07/25/19	O	61	61	1.0	5.0	1.4	1	0.9	3.2	0
Fluoride (mg/L)	mg/L	<0.1	03/24/14-07/25/19	O	61	1	< 0.1	< 0 .1					4
Hardness (mg/L)	mg/L	175	03/24/14-07/25/19	O	61	60	< 7	214.0	167.0	185	29.1	225.2	0
Magnesium (mg/L)	mg/L	12	05/30/19-07/25/19	O	3	3	9.0	12.0	10.6	11	1.5	13.6	14
Potassium (mg/L)	mg/L	1	05/30/19-07/25/19	O	3	3	1.0	1.0	1.0	1	0	1.0	1
Sodium (mg/L)	mg/L	2	05/30/19-07/25/19	O	3	3	2.0	2.0	2.0	2	0	2.0	2
Sulfate (mg/L)	mg/L	5	03/24/14-07/25/19	O	61	61	3.0	8.0	5.7	6	1.4	8.5	0
N+N (mg/L)	mg/L	0.01	03/24/14-07/25/19	O	61	42	< 0.01	0.13	0.03	0.02	0.04	0.11	10
Phosphorus (mg/L)	mg/L	0.004	05/30/19-07/25/19	O	3	3	0.004	0.018	0.009	0.009	0.007	0.023	0.02
Total N Pers (mg/L)	mg/L	0.05	04/29/15-07/25/19	O	47	37	< 0	1.1	0.08	0.09	0.16	0.4	0
Aluminum (DIS) (mg/L)	mg/L	<0.009	05/30/19-07/25/19	O	3	1	< 0.009	0.023					0.032
Antimony (TRC) (mg/L)	mg/L	<0.0005	05/30/19-07/25/19	O	3	0	< 0.0005	< 0 .0005					0.0005
Arsenic (TRC) (mg/L)	mg/L	<0.001	05/30/19-07/25/19	O	3	0	< 0.001	< 0 .001					0.001
Barium (TRC) (mg/L)	mg/L	0.08	05/30/19-07/25/19	O	3	3	0.06	0.08	0.07	0.07	0.01	0.09	0.078
Beryllium (TRC) (mg/L)	mg/L	<0.0008	05/30/19-07/25/19	O	3	0	< 0.0008	< 0 .0008					0.0008
Cadmium (TRC) (mg/L)	mg/L	<0.00003	05/30/19-07/25/19	O	3	0	< 0	< .00003					0
Chromium (TRC) (mg/L)	mg/L	<0.01	05/30/19-07/25/19	O	3	0	< 0.01	< 0 .01					0.01
Cobalt (TRC) (mg/L)	mg/L	<0.01	05/30/19-07/25/19	O	3	0	< 0.01	< 0 .01					0.01
Copper (TRC) (mg/L)	mg/L	<0.002	05/30/19-07/25/19	O	3	0	< 0.002	< 0 .002					0.002
Iron (TRC) (mg/L)	mg/L	0.07	05/30/19-07/25/19	O	3	3	0.07	0.67	0.2	0.16	0.32	0.84	0.56
Lead (TRC) (mg/L)	mg/L	<0.0003	05/30/19-07/25/19	O	3	1	< 0.0003	< 0 .0003					0.0003
Manganese (TRC) (mg/L)	mg/L	0.006	05/30/19-07/25/19	O	3	3	0.006	0.013	0.009	0.008	0.004	0.017	0.015
Mercury (TRC) (ug/L)	ug/L	<0.005	05/30/19-07/25/19	O	3	1	< 0.005	0.01					0
Molybdenum (TRC) (mg/L)	mg/L	<0.002	05/30/19-07/25/19	O	3	0	< 0.002	< 0 .002					0.002
Nickel (TRC) (mg/L)	mg/L	<0.001	05/30/19-07/25/19	O	3	1	< 0.001	0.002					0.002
Selenium (TRC) (mg/L)	mg/L	<0.0002	05/30/19-07/25/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Silver (TRC) (mg/L)	mg/L	<0.0002	05/30/19-07/25/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Strontium (TRC) (mg/L)	mg/L	0.15 L	05/30/19-07/25/19	O	3	3	0.12	0.15	0.14	0.14	0.02	0.18	0.154
Thallium (TRC) (mg/L)	mg/L	<0.0002	05/30/19-07/25/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Uranium (TRC) (mg/L)	mg/L	0.0003	05/30/19-07/25/19	O	3	3	0.0003	0.0003	0.0003	0.0003	0	0.0003	0.008
Zinc (TRC) (mg/L)	mg/L	<0.004	05/30/19-07/25/19	O	3	2	0.002	< .004	0.003	0.002	0.001	0.005	0.005

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

APPENDIX 2

DATABASE

Analyses Summary Report

Site Name: Black Butte Mine 9/13/2019 1:55:42 PM

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DS-1	DS-10	DS-11	DS-2
Water	Sample Date	7/25/2019	7/25/2019	7/24/2019	7/24/2019	7/24/2019	7/24/2019
	Sample Time	1:45:00 PM	2:30:00 PM	2:00:00 PM	11:15:00 AM	10:45:00 AM	10:05:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	H19070583-009	H19070585-013	H19070585-002	z	z	z
	Sample Number	BBC-1907-128	BBC-1907-129	BBC-1907-108	BBC-1907-102	BBC-1907-101	BBC-1907-100
	Remarks						
Field Parameters	Multiple Units						
Dissolved Oxygen				11.17	8.55	10.09	5.19
Field pH				7.95	7.68	7.74	7.17
Field Specific Conductivity				416	338	427	333
Flow							
Flow				11.1	3.97	7.38	0.91
Staff Gauge							
Water Temperature				11.4	9.7	7.5	13.5
Physical Parameters	mg/L						
Total Dissolved Solids	<10	<10		222			
Total Suspended Solids	<4	<10		<10			
Major Constituents - Commons Ions	mg/L						
Alkalinity as CaCO3	<4	<4		210			
Calcium (DIS)	<1	<1		60			
Chloride	<1	<1		<1			
Fluoride	<0.1	<0.1		0.1			
Hardness as CaCO3	<1	<1		238			
Magnesium (DIS)	<1	<1		22			
Potassium (DIS)	<1	<1		<1			
Sodium (DIS)	<1	<1		2			
Sulfate	<1	<1		14			
Nutrients	mg/L						
Nitrate + Nitrite as N	<0.01	<0.01		0.18			
Phosphorus (TOT)	<0.003						
Total Nitrogen as N (Persulfate)	<0.04						
Metals - Trace Constituents	Multiple Units						
Aluminum (DIS)	<0.009	<0.009		<0.009			
Antimony (DIS)		<0.0005		<0.0005			
Antimony (TRC)	<0.0005						
Arsenic (DIS)		<0.001		<0.001			
Arsenic (TRC)	<0.001						
Barium (DIS)		<0.003		0.05			
Barium (TRC)	<0.003						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- J: The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DS-1	DS-10	DS-11	DS-2
Water	Sample Date	7/25/2019	7/25/2019	7/24/2019	7/24/2019	7/24/2019	7/24/2019
	Sample Time	1:45:00 PM	2:30:00 PM	2:00:00 PM	11:15:00 AM	10:45:00 AM	10:05:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	H19070583-009	H19070585-013	H19070585-002	z	z	z
	Sample Number	BBC-1907-128	BBC-1907-129	BBC-1907-108	BBC-1907-102	BBC-1907-101	BBC-1907-100
	Remarks						
Metals - Trace Constituents	Multiple Units						
Beryllium (DIS)			<0.0008	<0.0008			
Beryllium (TRC)		<0.0008					
Cadmium (DIS)			<0.00003	<0.00003			
Cadmium (TRC)		<0.00003					
Chromium (DIS)			<0.01	<0.01			
Chromium (TRC)		<0.01					
Cobalt (DIS)			<0.01	<0.01			
Cobalt (TRC)		<0.01					
Copper (DIS)			<0.002	<0.002			
Copper (TRC)		<0.002					
Iron (DIS)			<0.02	<0.02			
Iron (TRC)		<0.02					
Lead (DIS)			<0.0003	<0.0003			
Lead (TRC)		<0.0003					
Manganese (DIS)			<0.005	<0.005			
Manganese (TRC)		<0.005					
Mercury (DIS)			<0.005	<0.005			
Mercury (TRC)		<0.005					
Molybdenum (DIS)			<0.002	<0.002			
Molybdenum (TRC)		<0.002					
Nickel (DIS)			<0.001	<0.001			
Nickel (TRC)		<0.001					
Selenium (DIS)			<0.0002	<0.0002			
Selenium (TRC)		<0.0002					
Silver (DIS)			<0.0002	<0.0002			
Silver (TRC)		<0.0002					
Strontium (DIS)			<0.0002	0.1			
Strontium (TRC)		<0.0003					
Thallium (DIS)			<0.0002	<0.0002			
Thallium (TRC)		<0.0002					
Uranium (DIS)			<0.0002	0.0006			
Uranium (TRC)		<0.0002					
Zinc (DIS)			<0.002	<0.002			

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DS-1	DS-10	DS-11	DS-2
Water	Sample Date	7/25/2019	7/25/2019	7/24/2019	7/24/2019	7/24/2019	7/24/2019
	Sample Time	1:45:00 PM	2:30:00 PM	2:00:00 PM	11:15:00 AM	10:45:00 AM	10:05:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	H19070583-009	H19070585-013	H19070585-002	z	z	z
	Sample Number	BBC-1907-128	BBC-1907-129	BBC-1907-108	BBC-1907-102	BBC-1907-101	BBC-1907-100
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Zinc (TRC)	<0.008					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DS-3	DS-3	DS-4	DS-7	DS-8	DS-9
Water	Sample Date	7/24/2019	7/24/2019	7/24/2019	7/25/2019	7/24/2019	7/24/2019
	Sample Time	3:35:00 PM	3:45:00 PM	4:45:00 PM	8:40:00 AM	11:50:00 AM	11:30:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	H19070585-004	H19070585-005	H19070585-007	z	z	z
	Sample Number	BBC-1907-112	BBC-1907-113	BBC-1907-115	BBC-1907-116	BBC-1907-104	BBC-1907-103
	Remarks		DUPLICATE				

Field Parameters	Multiple Units					
Dissolved Oxygen	5.14		7.26	8.81	9.19	8.1
Field pH	8.23		7.7	6.81	7.73	7.84
Field Specific Conductivity	49		98	260	439	355
Flow						
Flow	13.08			10.51	5.44	10.88
Staff Gauge						
Water Temperature	9.5		12.3	8.5	6.83	10.9
Physical Parameters	mg/L					
Total Dissolved Solids	54	60	69			
Total Suspended Solids	<10	<10	<10			
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	22	22	42			
Calcium (DIS)	5	5	12			
Chloride	<1	<1	<1			
Fluoride	<0.1	<0.1	<0.1			
Hardness as CaCO3	22	23	45			
Magnesium (DIS)	2	2	3			
Potassium (DIS)	1	1	<1			
Sodium (DIS)	1	1	1			
Sulfate	1	1	2			
Nutrients	mg/L					
Nitrate + Nitrite as N	0.19	0.18	0.31			
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	1.41 J	1.44 J	0.71 J			
Antimony (DIS)	<0.0005	<0.0005	<0.0005			
Antimony (TRC)						
Arsenic (DIS)	<0.001	<0.001	0.001			
Arsenic (TRC)						
Barium (DIS)	0.25	0.255	0.315			
Barium (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DS-3	DS-3	DS-4	DS-7	DS-8	DS-9
Water	Sample Date	7/24/2019	7/24/2019	7/24/2019	7/25/2019	7/24/2019	7/24/2019
	Sample Time	3:35:00 PM	3:45:00 PM	4:45:00 PM	8:40:00 AM	11:50:00 AM	11:30:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	H19070585-004	H19070585-005	H19070585-007	z	z	z
	Sample Number	BBC-1907-112	BBC-1907-113	BBC-1907-115	BBC-1907-116	BBC-1907-104	BBC-1907-103
	Remarks		DUPLICATE				

Metals - Trace Constituents	Multiple Units		
Beryllium (DIS)	<0.0008	<0.0008	<0.0008
Beryllium (TRC)			
Cadmium (DIS)	<0.00003	<0.00003	<0.00003
Cadmium (TRC)			
Chromium (DIS)	<0.01	<0.01	<0.01
Chromium (TRC)			
Cobalt (DIS)	<0.01	<0.01	<0.01
Cobalt (TRC)			
Copper (DIS)	0.002	0.002	<0.002
Copper (TRC)			
Iron (DIS)	0.78	0.8	0.38
Iron (TRC)			
Lead (DIS)	<0.0003	<0.0003	<0.0003
Lead (TRC)			
Manganese (DIS)	<0.005	<0.005	<0.005
Manganese (TRC)			
Mercury (DIS)	0.006	0.006	<0.005
Mercury (TRC)			
Molybdenum (DIS)	<0.002	<0.002	<0.002
Molybdenum (TRC)			
Nickel (DIS)	0.003	0.003	0.002
Nickel (TRC)			
Selenium (DIS)	<0.0002	<0.0002	<0.0002
Selenium (TRC)			
Silver (DIS)	<0.0002	<0.0002	<0.0002
Silver (TRC)			
Strontium (DIS)	0.0297 L	0.0299 L	0.0456 L
Strontium (TRC)			
Thallium (DIS)	<0.0002	<0.0002	<0.0002
Thallium (TRC)			
Uranium (DIS)	<0.0002	<0.0002	<0.0002
Uranium (TRC)			
Zinc (DIS)	0.007 L	0.007 L	<0.005

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DS-3	DS-3	DS-4	DS-7	DS-8	DS-9
Water	Sample Date	7/24/2019	7/24/2019	7/24/2019	7/25/2019	7/24/2019	7/24/2019
	Sample Time	3:35:00 PM	3:45:00 PM	4:45:00 PM	8:40:00 AM	11:50:00 AM	11:30:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	H19070585-004	H19070585-005	H19070585-007	z	z	z
	Sample Number	BBC-1907-112	BBC-1907-113	BBC-1907-115	BBC-1907-116	BBC-1907-104	BBC-1907-103
	Remarks		DUPLICATE				
Metals - Trace Constituents	Multiple Units						
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 9/13/2019 1:55:42 PM

Sample Type:	Station (Site)	SP-10	SP-11	SP-12	SP-3	SP-4	SP-5
Water	Sample Date	7/24/2019	7/25/2019	7/25/2019	7/24/2019	7/25/2019	7/24/2019
	Sample Time	1:10:00 PM	10:15:00 AM	10:00:00 AM	4:20:00 PM	9:15:00 AM	2:20:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19070585-001	H19070585-012	H19070585-011	H19070585-006	H19070585-009	H19070585-003
	Sample Number	BBC-1907-106	BBC-1907-121	BBC-1907-120	BBC-1907-114	BBC-1907-118	BBC-1907-109
	Remarks						

Field Parameters	Multiple Units					
Dissolved Oxygen	7.83	6.61	4.6	8.66	9.13	6.5
Field pH	7.8	7.65	7.76	7.79	7.59	8.09
Field Specific Conductivity	394	196	415	155	428	391
Flow						
Flow	6.73	NM	NM	1.93	15.26	2.6
Staff Gauge						
Water Temperature	9.6	6.8	8.4	9.9	6.7	16.6
Physical Parameters	mg/L					
Total Dissolved Solids	208	122	244	113	236	223
Total Suspended Solids	<10	<10	10 J	20 J	10 J	52 J
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	210	92	190	69	190	220
Calcium (DIS)	58	23	52	22	47	63
Chloride	<1	<1	8	<1	<1	<1
Fluoride	0.1	0.1	0.2	0.1	0.2	0.1
Hardness as CaCO3	228	91	224	75	219	237
Magnesium (DIS)	20	8	23	5	25	19
Potassium (DIS)	1	1	2	1	2	<1
Sodium (DIS)	2	3	2	2	2	2
Sulfate	12	6	19	6	26	9
Nutrients	mg/L					
Nitrate + Nitrite as N	0.18	0.22	0.42	0.19	0.28	0.03
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009	0.065 J	<0.009	0.396 J	<0.009	<0.009
Antimony (DIS)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Antimony (TRC)						
Arsenic (DIS)	<0.001	0.006	<0.001	0.002	<0.001	<0.001
Arsenic (TRC)						
Barium (DIS)	0.052	0.309	0.173	0.262	0.113	0.057
Barium (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- J: The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-10	SP-11	SP-12	SP-3	SP-4	SP-5
Water	Sample Date	7/24/2019	7/25/2019	7/25/2019	7/24/2019	7/25/2019	7/24/2019
	Sample Time	1:10:00 PM	10:15:00 AM	10:00:00 AM	4:20:00 PM	9:15:00 AM	2:20:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19070585-001	H19070585-012	H19070585-011	H19070585-006	H19070585-009	H19070585-003
	Sample Number	BBC-1907-106	BBC-1907-121	BBC-1907-120	BBC-1907-114	BBC-1907-118	BBC-1907-109
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Beryllium (DIS)	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
	Beryllium (TRC)						
	Cadmium (DIS)	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
	Cadmium (TRC)						
	Chromium (DIS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Chromium (TRC)						
	Cobalt (DIS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Cobalt (TRC)						
	Copper (DIS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	Copper (TRC)						
	Iron (DIS)	<0.02	0.03	0.29	0.06	0.08	<0.02
	Iron (TRC)						
	Lead (DIS)	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
	Lead (TRC)						
	Manganese (DIS)	<0.005	<0.005	0.02	<0.005	0.018	<0.005
	Manganese (TRC)						
	Mercury (DIS)	<0.005	<0.005	<0.005	0.006	<0.005	<0.005
	Mercury (TRC)						
	Molybdenum (DIS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	Molybdenum (TRC)						
	Nickel (DIS)	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
	Nickel (TRC)						
	Selenium (DIS)	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002
	Selenium (TRC)						
	Silver (DIS)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
	Silver (TRC)						
	Strontium (DIS)	0.104	0.0951	0.101	0.0602	0.0641	0.126
	Strontium (TRC)						
	Thallium (DIS)	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002
	Thallium (TRC)						
	Uranium (DIS)	0.0007	0.0004	0.0006	<0.0002	0.0005	0.0006
	Uranium (TRC)						
	Zinc (DIS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-10	SP-11	SP-12	SP-3	SP-4	SP-5
Water	Sample Date	7/24/2019	7/25/2019	7/25/2019	7/24/2019	7/25/2019	7/24/2019
	Sample Time	1:10:00 PM	10:15:00 AM	10:00:00 AM	4:20:00 PM	9:15:00 AM	2:20:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19070585-001	H19070585-012	H19070585-011	H19070585-006	H19070585-009	H19070585-003
	Sample Number	BBC-1907-106	BBC-1907-121	BBC-1907-120	BBC-1907-114	BBC-1907-118	BBC-1907-109
	Remarks						
	Metals - Trace Constituents Multiple Units						
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-6	SP-7	SW-1	SW-14	SW-17	SW-17
Water	Sample Date	7/25/2019	7/25/2019	7/25/2019	7/25/2019	7/25/2019	7/25/2019
	Sample Time	8:55:00 AM	9:35:00 AM	11:00:00 AM	12:10:00 PM	11:45:00 AM	12:00:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19070585-008	H19070585-010	H19070583-003	H19070583-006	H19070583-004	H19070583-005
	Sample Number	BBC-1907-117	BBC-1907-119	BBC-1907-122	BBC-1907-125	BBC-1907-123	BBC-1907-124
	Remarks						DUPLICATE
Field Parameters	Multiple Units						
Dissolved Oxygen		8.75	2	9.16		8.71	
Field pH		7.1	7.43	8.38		8.09	
Field Specific Conductivity		279	336	322		462	
Flow				51.24	4.03	0.15	
Flow		2.46	99.64				
Staff Gauge				1.2	0.7		
Water Temperature		8	7.3	10.9		11.6	
Physical Parameters	mg/L						
Total Dissolved Solids		160	188	185 D	217 D	266 D	266 D
Total Suspended Solids		<10	<10	4 J	<4	19 J	12 J
Major Constituents - Commons Ions	mg/L						
Alkalinity as CaCO3		130	160	170	200	230	230
Calcium (DIS)		36	42	48	55	60	61
Chloride		<1	2	1	2	4	4
Fluoride		0.2	0.3	0.1	0.2	0.2	0.2
Hardness as CaCO3		146	162	167	206	247	250
Magnesium (DIS)		13	14	12	17	23	24
Potassium (DIS)		<1	3	1	1	1	<1
Sodium (DIS)		2	5	2	2	3	3
Sulfate		9	10	5	6	20	20
Nutrients	mg/L						
Nitrate + Nitrite as N		0.36	0.3	<0.01	<0.01	0.11	0.11
Phosphorus (TOT)				0.01	0.005	0.011	0.013
Total Nitrogen as N (Persulfate)				0.12	0.11	0.37	0.35
Metals - Trace Constituents	Multiple Units						
Aluminum (DIS)		<0.009	<0.009	<0.009	0.021 J	0.021 J	<0.009
Antimony (DIS)		<0.0005	<0.0005				
Antimony (TRC)				<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (DIS)		<0.001	0.003				
Arsenic (TRC)				<0.001	<0.001	<0.001	<0.001
Barium (DIS)		0.208	0.116				
Barium (TRC)				0.102	0.109	0.157	0.157

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- J: The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-6	SP-7	SW-1	SW-14	SW-17	SW-17
Water	Sample Date	7/25/2019	7/25/2019	7/25/2019	7/25/2019	7/25/2019	7/25/2019
	Sample Time	8:55:00 AM	9:35:00 AM	11:00:00 AM	12:10:00 PM	11:45:00 AM	12:00:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19070585-008	H19070585-010	H19070583-003	H19070583-006	H19070583-004	H19070583-005
	Sample Number	BBC-1907-117	BBC-1907-119	BBC-1907-122	BBC-1907-125	BBC-1907-123	BBC-1907-124
	Remarks						DUPLICATE
Metals - Trace Constituents	Multiple Units						
	Beryllium (DIS)	<0.0008	<0.0008				
	Beryllium (TRC)			<0.0008	<0.0008	<0.0008	<0.0008
	Cadmium (DIS)	<0.00003	<0.00003				
	Cadmium (TRC)			<0.00003	<0.00003	<0.00003	<0.00003
	Chromium (DIS)	<0.01	<0.01				
	Chromium (TRC)			<0.01	<0.01	<0.01	<0.01
	Cobalt (DIS)	<0.01	<0.01				
	Cobalt (TRC)			<0.01	<0.01	<0.01	<0.01
	Copper (DIS)	<0.002	<0.002				
	Copper (TRC)			<0.002	<0.002	<0.002	<0.002
	Iron (DIS)	<0.02	<0.02				
	Iron (TRC)			0.13	0.07	0.37	0.36
	Lead (DIS)	<0.0003	<0.0003				
	Lead (TRC)			<0.0003	<0.0003	<0.0003	<0.0003
	Manganese (DIS)	<0.005	<0.005				
	Manganese (TRC)			0.015	0.007	0.041	0.041
	Mercury (DIS)	<0.005	<0.005				
	Mercury (TRC)			<0.005	<0.005	0.007	0.007
	Molybdenum (DIS)	<0.002	<0.002				
	Molybdenum (TRC)			<0.002	<0.002	<0.002	<0.002
	Nickel (DIS)	<0.001	<0.001				
	Nickel (TRC)			<0.001	<0.001	<0.001	<0.001
	Selenium (DIS)	<0.0002	0.0003				
	Selenium (TRC)			<0.0002	<0.0002	<0.0002	<0.0002
	Silver (DIS)	<0.0002	<0.0002				
	Silver (TRC)			<0.0002	<0.0002	<0.0002	<0.0002
	Strontium (DIS)	0.0696	0.154				
	Strontium (TRC)			0.136 L	0.125 L	0.172 L	0.169 L
	Thallium (DIS)	0.0005	0.001				
	Thallium (TRC)			<0.0002	<0.0002	<0.0002	<0.0002
	Uranium (DIS)	0.0004	0.0009				
	Uranium (TRC)			0.0003	0.0004	0.0005	0.0005
	Zinc (DIS)	<0.002	<0.002				

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-6	SP-7	SW-1	SW-14	SW-17	SW-17
Water	Sample Date	7/25/2019	7/25/2019	7/25/2019	7/25/2019	7/25/2019	7/25/2019
	Sample Time	8:55:00 AM	9:35:00 AM	11:00:00 AM	12:10:00 PM	11:45:00 AM	12:00:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19070585-008	H19070585-010	H19070583-003	H19070583-006	H19070583-004	H19070583-005
	Sample Number	BBC-1907-117	BBC-1907-119	BBC-1907-122	BBC-1907-125	BBC-1907-123	BBC-1907-124
	Remarks						DUPLICATE
	Metals - Trace Constituents Multiple Units						
	Zinc (TRC)			<0.004	<0.04	0.005 L	0.005 L

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 9/13/2019 1:55:42 PM

Sample Type:	Station (Site)	SW-18	SW-19	SW-2	SW-3	SW-4	USGS-SC1
Water	Sample Date	7/24/2019	7/24/2019	7/25/2019	7/24/2019	7/24/2019	7/25/2019
	Sample Time	2:55:00 PM	12:40:00 PM	12:45:00 PM	2:45:00 PM	1:40:00 PM	1:15:00 PM
	Lab	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	z	z	H19070583-007	H19070583-002	H19070583-001	H19070583-008
	Sample Number	BBC-1907-111	BBC-1907-105	BBC-1907-126	BBC-1907-110	BBC-1907-107	BBC-1907-127
	Remarks						

Field Parameters	Multiple Units					
Dissolved Oxygen		8.48		8.09	7.2	
Field pH		8.29		8.34	8	
Field Specific Conductivity		392		414	367	
Flow	Dry	0.26	43.96	0.122	0.012	39.73
Flow						
Staff Gauge			0.75	0.12		
Water Temperature		13.5		14.4	14.1	
Physical Parameters	mg/L					
Total Dissolved Solids			179 D	236 D	211 D	188 D
Total Suspended Solids			<4	6 J	8 J	<4
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3			170	210	190	180
Calcium (DIS)			48	52	47	50
Chloride			1	3	<1	1
Fluoride			<0.1	0.2	0.1	<0.1
Hardness as CaCO3			166	228	197	175
Magnesium (DIS)			11	24	19	12
Potassium (DIS)			1	1	1	1
Sodium (DIS)			2	2	3	2
Sulfate			5	18	9	5
Nutrients	mg/L					
Nitrate + Nitrite as N			<0.01	0.02	0.08	0.01
Phosphorus (TOT)			0.004	0.015	0.045	0.004
Total Nitrogen as N (Persulfate)			0.06	0.12	0.22	0.05
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)			<0.009	0.018 J	<0.009	<0.009
Antimony (DIS)						
Antimony (TRC)			<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (DIS)						
Arsenic (TRC)			<0.001	<0.001	<0.001	<0.001
Barium (DIS)						
Barium (TRC)			0.086	0.169	0.148	0.08

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-18	SW-19	SW-2	SW-3	SW-4	USGS-SC1
Water	Sample Date	7/24/2019	7/24/2019	7/25/2019	7/24/2019	7/24/2019	7/25/2019
	Sample Time	2:55:00 PM	12:40:00 PM	12:45:00 PM	2:45:00 PM	1:40:00 PM	1:15:00 PM
	Lab	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	z	z	H19070583-007	H19070583-002	H19070583-001	H19070583-008
	Sample Number	BBC-1907-111	BBC-1907-105	BBC-1907-126	BBC-1907-110	BBC-1907-107	BBC-1907-127
	Remarks						
	Metals - Trace Constituents Multiple Units						
	Beryllium (DIS)						
	Beryllium (TRC)			<0.0008	<0.0008	<0.0008	<0.0008
	Cadmium (DIS)						
	Cadmium (TRC)			<0.00003	<0.00003	<0.00003	<0.00003
	Chromium (DIS)						
	Chromium (TRC)			<0.01	<0.01	<0.01	<0.01
	Cobalt (DIS)						
	Cobalt (TRC)			<0.01	<0.01	<0.01	<0.01
	Copper (DIS)						
	Copper (TRC)			<0.002	<0.002	<0.002	<0.002
	Iron (DIS)						
	Iron (TRC)			0.09	0.19	0.39	0.07
	Lead (DIS)						
	Lead (TRC)			<0.0003	<0.0003	<0.0003	<0.0003
	Manganese (DIS)						
	Manganese (TRC)			0.008	<0.005	0.027	0.006
	Mercury (DIS)						
	Mercury (TRC)			<0.005	<0.005	<0.005	<0.005
	Molybdenum (DIS)						
	Molybdenum (TRC)			<0.002	<0.002	<0.002	<0.002
	Nickel (DIS)						
	Nickel (TRC)			<0.001	<0.001	<0.001	<0.001
	Selenium (DIS)						
	Selenium (TRC)			<0.0002	<0.0002	<0.0002	<0.0002
	Silver (DIS)						
	Silver (TRC)			<0.0002	<0.0002	<0.0002	<0.0002
	Strontium (DIS)						
	Strontium (TRC)			0.139 L	0.122 L	0.186 L	0.15 L
	Thallium (DIS)						
	Thallium (TRC)			<0.0002	<0.0002	<0.0002	<0.0002
	Uranium (DIS)						
	Uranium (TRC)			0.0003	0.0006	0.0007	0.0003
	Zinc (DIS)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-18	SW-19	SW-2	SW-3	SW-4	USGS-SC1
Water	Sample Date	7/24/2019	7/24/2019	7/25/2019	7/24/2019	7/24/2019	7/25/2019
	Sample Time	2:55:00 PM	12:40:00 PM	12:45:00 PM	2:45:00 PM	1:40:00 PM	1:15:00 PM
	Lab	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	z	z	H19070583-007	H19070583-002	H19070583-001	H19070583-008
	Sample Number	BBC-1907-111	BBC-1907-105	BBC-1907-126	BBC-1907-110	BBC-1907-107	BBC-1907-127
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Zinc (TRC)			<0.004	0.009 L	<0.02	<0.004

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

QUALITY CONTROL / QUALITY ASSURANCE
DATA VERIFICATION REPORT

BLACK BUTTE COPPER
WATER RESOURCE MONITORING

AUGUST 2019

Prepared by
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SEPTEMBER 2019

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APPENDIX 2: DATABASE SUMMARY REPORT

GLOSSARY OF TERMS

CCB ..... Continuing Calibration Blank

CCV ..... Continuing Calibration Verification

CLP ..... Contract Laboratory Program

CRDL..... Contract Required Detection Limit

DIé é é é é Deionized Water

FAA ..... Flame Atomic Absorption

GFAA..... Graphite Furnace Atomic Absorption

HGAA ..... Hydride Generation Atomic Absorption

ICB..... Initial Calibration Blank

ICP ..... Inductively Coupled Plasma

ICV ..... Initial Calibration Verification

IDL..... Instrument Detection Limit

LCS ..... Laboratory Control Sample

MSA..... Method of Standard Additions

PB ..... Preparation Blank

PRDL ..... Project Required Detection Limit

QAPP ..... Quality Assurance Project Plan

QC..... Quality Control

RPD..... Relative Percent Difference

RSD..... Relative Standard Deviation

SOW..... Statement of Work

TDS..... Total Dissolved Solids

DATA VALIDATION REPORT

1. INTRODUCTION

This validation applies to 30 samples collected for the Black Butte Tintina surface water and groundwater monitoring program. All sampling occurred in August 2019. All samples were submitted to Energy Laboratories in Helena, Montana and were assigned Laboratory IDs: H19080621 and H19080622. The total number of samples included: 17 groundwater and surface water samples including 2 field duplicates, and 2 field deionized (DI and Rinsate) blanks and 9 field site observations.

- Validation procedures used are generally consistent with:
  (Check all that apply)
  _X_ EPA CLP National Functional Guidelines for Inorganics Data Review
  _X_ EPA CLP National Functional Guidelines for Organic Data Review
  _X__ Montana Department of Environmental Quality, Data Validation Guidelines for Evaluating Analytical Data, Hydrometrics, September 2010

2. DELIVERABLES

- All laboratory document deliverables were present as specified in the CLP-Statement of Work and/or the project contract
  _X_ Yes
  ___No

- All documentation of field procedures was provided as required
  _X_ Yes
  ___No

3. FIELD QUALITY CONTROL SAMPLES

- Field blanks
  Please note that the highest blank value associated with any particular analyte is the blank value used for the flagging process.
  DI, trip, rinsate, or any other field blanks have been carried out at the proper frequency
  _X_ Yes
  ___No

  Reported results on the field blanks are less than the contract required detection limits (CRDL) or the project required detection limits (PRDL) if project detection limits have been specified
  _X_ Yes
  ___No

  Field duplicates have been collected at the proper frequency
  _X_ Yes
  ___No

  Field duplicate relative percent differences (RPDs) were within the required control limits (25 percent or less for water matrix and 50 percent or less for soil matrix)
  _X_ Yes
  ___No

4. LABORATORY PROCEDURES

- Laboratory Case Narrative Notes any non conformance issues with the analytical data
  ____Yes
  ____No

_X_ NA

- Samples were received by the laboratory at the proper temperature
  _X_ Yes
  ___ No

- Holding times met
  _X_ Yes
  ___ No

- Consistency with project requirements
  _X_ Yes
  ___ No

- Sample Conditions met at Check-in
  _X_ Yesï see following notes
  ___ No

  NOTES: In the Energy Laboratory sample check-in receipt the following was noted:
  H19070585- Sample time on metals bottle in sample set BBC-1908-1117was marked as non-filtered analysis but was preserved in field. Laboratory emailed to confirm filtered sample analyses was needed.

- Reporting units appropriate for the associated sample matrix and methods of analysis
  _X_ Yes
  ___ No

- Project specified methods were used
  _X_ Yesï see following list of methods used
  ___ No

  NOTES: It should be noted that parameters were analyzed using different methods than requested; however, all methods used by the laboratory are comparable. The following methods were used during analyses: A2540D, A2540C, A2320B, E300.0, A4500-F C, A2340B, E353.2, A4500-N C, E365.1, E200.8, and E200.7.

- Detection Limits met project required detection limits (PRDL)
  _X_ Yesï see following notes
  ___ No

  NOTES: It should be noted that total dissolved solids and zinc had a reporting limit increases due to sample matrix interference (D). TDS had a limit of 10 mg/l used not the requested 4 mg/l. Strontium had the 0.0003 mg/l reporting limit was used in place of the requested 0.0002 mg/l; and zinc had a varying reporting limit as high as 0.02 mg/L not the requested 0.002 mg/L. However, values were flagged with an L to indicate that the lowest available reporting limit was used per method used for analysis. In addition, a reporting limit of 0.01 mg/l was used for nitrate + nitrite as n as replacement of the 0.003 mg/l requested.

5. INITIAL OR CONTINUING CALIBRATION VERIFICATION RESULTS

- Initial or Continuing Calibration Verification samples were within acceptable limits
  _X_ Yes
  ___ No

6. LABORATORY BLANKS

- **PREPARATION/METHOD BLANKS**

Preparation/Method blanks were prepared and analyzed at the required frequency
_X_ Yes
___ No

All analytes in the preparation blank were less than the CRDL (or PRDL if a project detection limit has been specified)
_X_ Yes
___ No

7. MATRIX SPIKE /MATRIX SPIKE DUPLICATES (MS/MSD)

- Matrix spike samples were analyzed at the proper frequency
  _X_ Yes
  ____ No

- Matrix spike recoveries were within control limits
  ____ Yes
  _X_ No ï see following table

QC Sample ID	Parameter	% REC	Lab Flag	Lab Advisory Limits (% REC)
H19080622-010CMS	Nitrate + Nitrite as N	112	S	90-110

S ï Spike recovery outside of recovery limits

- Matrix spike RPDôs were within control limits
  _X_ Yes
  ____ No

- Matrix spike duplicate samples were analyzed at the proper frequency
  _X_ Yes
  ____ No

- Matrix spike duplicate RPDôs were within control limits
  _X_ Yes
  ____ No

- Matrix spike duplicate recoveries were within the laboratory specified control limits.
  _X_ Yes
  ___ No

8. LABORATORY CONTROL SAMPLES

- LCS Samples

  Laboratory Control Samples used the correct matrix and concentrations
  ___ Yes
  ___ No
  _X_ NA

  Laboratory Control Samples were prepared and analyzed at the required frequency
  ___ Yes
  ___ No
  _X_ NA

All analytes in the laboratory control samples were less than the control limits specified
_X_ Yes
___ No

9. DATA QUALITY OBJECTIVES

- Project data quality objectives (DQOs) met

_X_ Yes
___ No

Accuracy

Accuracy for this project is the degree of agreement between an analytical measurement and a reference accepted as a true value. The accuracy of a measurement system can be affected by errors introduced by field contamination, sample preservation, sample handling, sample preparation and analytical techniques. Analysis of MS/MSD samples, laboratory control spikes (LCS) or blank spikes, surrogate standards and method blanks are typically used to calculate the percent recovery for evaluating accuracy. Accuracy for this sampling event was 99 percent.

Precision

Precision for this project is the degree of mutual agreement between individual measurements of the same property under similar conditions. Combined field and laboratory precision is evaluated by collecting and analyzing field duplicate and then calculating the variance between the samples, typically as a relative percent difference (RPD). Laboratory analytical precision is evaluated by analyzing matrix spike/matrix spike duplicate samples and using the results to calculate an RPD. The combined precision was 99 percent for this sampling event for both laboratory and field.

Representativeness

Representativeness for this project is the degree to which sample data accurately and precisely represent the characteristics of a population, and variations in a parameter at a sampling point or an environmental condition that they are intended to represent. Typically representative data will be obtained through careful selection of sampling locations and analytical parameters; proper collection and handling of samples and through use and consistent application of established field and laboratory procedures. Evaluation of field and laboratory blank samples for presence of contaminants can be useful in evaluating representativeness of sample results. Both laboratory and field representativeness for this sampling event was 100 percent.

Completeness

The target completeness for this project is the percent of the measurements valid (not rejected). Valid data are obtained when samples are collected and analyzed in accordance with quality control procedures outlined in the SAP, and when none of the QC criteria that affect data usability are exceeded. Once data validation is complete the number of useable sample results is divided by the total number of sample results planned for the investigation to determine the percent completeness. Completeness for this sampling event was 100 percent.

Comparability

Comparability is the expression of the confidence with which one data set can be compared with another. Comparability of data is achieved by consistently following standard field and laboratory procedures and by using standard measurement units in reporting analytical data. This criterion was met.

REFERENCES

Montana Department of Environmental Quality, Data Validation Guidelines for Evaluating Analytical Data (Updated August 5, 2010)

EPA, 2017a. National Functional Guidelines for Organic Superfund Methods Data Review. EPA-540-R-2017-002. Office of Superfund Remediation and Technology Innovation. January 2017.

EPA, 2017b. National Functional Guidelines for Inorganic Superfund Methods Data Review. EPA-540-R-2017-001. Office of Superfund Remediation and Technology Innovation. January 2017.

Hem, J.D., 1992. Study and Interpretation of the Chemical Characteristics of Natural Water, 3rd edition. US Geological Survey Water Supply Paper 2254.

APPENDIX 1

TABLES

TABLE 1.

DATA VALIDATION CODES AND DEFINITIONS

CODE	DEFINITION
J	-The associated numerical value is an estimated quantity because quality control criteria were not met.
B	- Blank contamination. Indicates possible high bias and / or false positive. The associated value is an estimate.
R	- Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis is necessary for verification.
A	- Anomalous data. No apparent explanation for discrepancy in data. (Not an EPA code.)

Table 2. Summary of Flagged Data

StationName	Sample Date	Field Sample Id	Lab Name	Lab Sample Id	Parameter Name	Sample Result	Reporting Units	Validation Flag	Exceedance Type

Data Comparison Summary

Report Date: September 23, 2019

Quarterly Monitoring

STATION	SAMPLE DATE	RESULT mg/L	PARAMETER		QC Code	COMPARISON PERIOD	N	# OF DET	MIN mg/L	MEAN: mg/L	MAX mg/L	STDDARD DEVIATION	STD DEVS FROM MEAN	RELATION TO DATABASE PERIOD
DS-1	08/20/19	<0.000	Antimony (DIS)		O	03/25/15-08/20/19	33	0	<0.0005	0.0005	<0.0005	0		HIGHEST
DS-1	08/20/19	<0.000	Beryllium (DIS)		O	03/25/15-08/20/19	33	0	<0.0008	0.0008	<0.0008	0		HIGHEST
DS-1	08/20/19	<0.000	Cadmium (DIS)		O	03/25/15-08/20/19	33	0	<0.00003	0.00003	<0.00003	0		HIGHEST
DS-1	08/20/19	<0.01	Chromium (DIS)		O	03/25/15-08/20/19	33	0	<0.01	0.01	<0.01	0		HIGHEST
DS-1	08/20/19	<0.002	Copper (DIS)		O	03/25/15-08/20/19	33	1	<0.002	0.002	0.007	0.001	0.00	LOWEST
DS-1	08/20/19	<0.005	Mercury (DIS)	ug/L	O	03/25/15-08/20/19	32	0	<0.000005	0.001	<0.005	0.002	2.00	HIGHEST
DS-1	08/20/19	<0.002	Molybdenum (DIS)		O	03/25/15-08/20/19	33	0	<0.002	0.002	<0.002	0		HIGHEST
DS-1	08/20/19	<0.001	Nickel (DIS)		O	03/25/15-08/20/19	33	0	<0.001	0.001	<0.001	0		HIGHEST
DS-1	08/20/19	0.0002	Selenium (DIS)		O	03/25/15-08/20/19	33	9	0.0002	0.0002	0.0002	0		HIGHEST
DS-1	08/20/19	<0.000	Silver (DIS)		O	03/25/15-08/20/19	33	0	<0.0002	0.0002	<0.0002	0		HIGHEST
DS-1	08/20/19	<0.000	Thallium (DIS)		O	03/25/15-08/20/19	33	0	<0.0002	0.0002	<0.0002	0		HIGHEST
DS-1	08/20/19	<0.002	Zinc (DIS)		O	03/25/15-08/20/19	33	25	<0.002	0.008	0.03	0.007	0.86	LOWEST
DS-1	08/20/19	<0.001	Arsenic (DIS)		O	03/25/15-08/20/19	33	0	<0.001	0.001	<0.001	0		HIGHEST
DS-1	08/20/19	<0.000	Lead (DIS)		O	03/25/15-08/20/19	33	0	<0.0003	0.0003	<0.0003	0		HIGHEST
DS-1	08/20/19	0.0006	Uranium (DIS)		O	03/25/15-08/20/19	33	5	0.0006	0.0069	<0.008	0.0027	2.33	LOWEST
DS-1	08/20/19	<0.009	Aluminum (DIS)		O	03/25/15-08/20/19	34	1	<0.009	0.009	0.024	0.003	0.00	LOWEST
DS-1	08/20/19	<0.01	Cobalt (DIS)		O	03/25/15-08/20/19	33	0	<0.01	0.01	<0.01	0		HIGHEST
DS-1	08/20/19	54	Calcium		O	03/25/15-08/20/19	34	34	46	57	62	3	1.00	
DS-1	08/20/19	0.051	Barium (DIS)		O	03/25/15-08/20/19	33	33	0.041	0.051	0.074	0.007	0.00	
DS-1	08/20/19	<0.02	Iron (DIS)		O	03/25/15-08/20/19	33	2	<0.02	0.02	0.06	0.01	0.00	LOWEST
DS-1	08/20/19	20	Magnesium		O	03/25/15-08/20/19	34	34	17	21	23	1	1.00	
DS-1	08/20/19	<0.005	Manganese (DIS)		O	03/25/15-08/20/19	33	0	<0.005	0.005	<0.005	0		HIGHEST
DS-1	08/20/19	<1	Potassium		O	03/25/15-08/20/19	34	0	<1	1	<1	0		HIGHEST
DS-1	08/20/19	2	Sodium		O	03/25/15-08/20/19	34	34	1	2	2	0		HIGHEST
DS-1	08/20/19	0.108	Strontium (DIS)		O	03/25/15-08/20/19	33	33	0.0847	0.107	0.119	0.007	0.14	
DS-1	08/20/19	<1	Chloride		O	03/25/15-08/20/19	34	0	<1	1	<1	0		HIGHEST
DS-1	08/20/19	5.94	Flow	Gallo	O	03/25/15-08/20/19	30	30	0.05800	12.8	62.27	15.02	0.46	
DS-1	08/20/19	0.1	Fluoride		O	03/25/15-08/20/19	34	31	0.1	0.1	0.1	0		HIGHEST
DS-1	08/20/19	0.22	N+N		O	03/25/15-08/20/19	34	34	0.03	0.19	0.26	0.05	0.60	
DS-1	08/20/19	8.08	Field pH	s.u.	O	03/25/15-08/20/19	33	33	7.36	7.79	8.56	0.29	1.00	
DS-1	08/20/19	402	Field SC	umh	O	03/25/15-08/20/19	34	34	337	422	698.7	54	0.37	

NOTES: Summary of the comparison of Validation data to the Database Period Data, showing Parameters that are Three of more Standard Deviations from the Mean of the Database Period and the Relationship to these Data.

All results in mg/L unless otherwise noted. All results laboratory unless field (FLD) or Calculated (CALC). N: Number of samples in comparison data set; 50% of data must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Data Comparison Summary

Report Date: September 23, 2019

Quarterly Monitoring

STATION	SAMPLE DATE	RESULT mg/L	PARAMETER		QC Code	COMPARISON PERIOD	N	# OF DET	MIN mg/L	MEAN: mg/L	MAX mg/L	STDDARD DEVIATION	STD DEVS FROM MEAN	RELATION TO DATABASE PERIOD
DS-1	08/20/19	232	TDS		O	03/25/15-08/20/19	34	34	203	230	245	10	0.20	
DS-1	08/20/19	220	Alkalinity		O	03/25/15-08/20/19	34	34	180	215	220	8	0.62	HIGHEST
DS-1	08/20/19	219	Hardness		O	03/25/15-08/20/19	34	34	185	229	249	12	0.83	
DS-1	08/20/19	<10	TSS		O	03/25/15-08/20/19	34	10	<10	64	1130	201	0.27	LOWEST
DS-1	08/20/19	11	Water Temp	Deg	O	03/25/15-08/20/19	34	34	0.5	7	18.25	3	1.33	
DS-1	08/20/19	9.41	DO		O	03/25/15-08/20/19	34	34	8.15	36.39	916	155.43	0.17	
DS-1	08/20/19	16	Sulfate		O	03/25/15-08/20/19	34	34	11	15	18	2	0.50	
DS-3	08/20/19	<0.000	Antimony (DIS)		O	08/06/14-08/20/19	31	0	<0.0005	0.0005	<0.0005	0		HIGHEST
DS-3	08/20/19	<0.000	Beryllium (DIS)		O	08/06/14-08/20/19	31	0	<0.0008	0.0008	<0.0008	0		HIGHEST
DS-3	08/20/19	<0.000	Cadmium (DIS)		O	08/06/14-08/20/19	31	2	<0.00003	0.00003	<0.00003	0		HIGHEST
DS-3	08/20/19	<0.01	Chromium (DIS)		O	08/06/14-08/20/19	31	0	<0.005	0.01	<0.01	0		HIGHEST
DS-3	08/20/19	<0.002	Copper (DIS)		O	08/06/14-08/20/19	31	20	<0.002	0.003	0.005	0.001	1.00	LOWEST
DS-3	08/20/19	0.006	Mercury (DIS)	ug/L	O	08/06/14-08/20/19	31	20	0.000002	0.001	0.02 D	0.004	1.25	
DS-3	08/20/19	<0.002	Molybdenum (DIS)		O	08/06/14-08/20/19	31	0	<0.001	0.002	<0.002	0		HIGHEST
DS-3	08/20/19	0.003	Nickel (DIS)		O	08/06/14-08/20/19	31	30	<0.001	0.004	0.006	0.001	1.00	
DS-3	08/20/19	<0.000	Selenium (DIS)		O	08/06/14-08/20/19	31	5	0.0001	0.0002	<0.0002	0		HIGHEST
DS-3	08/20/19	<0.000	Silver (DIS)		O	08/06/14-08/20/19	31	0	<0.0002	0.0002	<0.0002	0		HIGHEST
DS-3	08/20/19	<0.000	Thallium (DIS)		O	08/06/14-08/20/19	31	0	<0.0002	0.0002	<0.0002	0		HIGHEST
DS-3	08/20/19	0.004	Zinc (DIS)		O	08/06/14-08/20/19	31	25	0.002	0.005	0.015 J	0.004	0.25	
DS-3	08/20/19	<0.001	Arsenic (DIS)		O	08/06/14-08/20/19	31	7	<0.001	0.001	0.002	0		LOWEST
DS-3	08/20/19	<0.000	Lead (DIS)		O	08/06/14-08/20/19	31	13	0.0001	0.0004	0.0011	0.0002	0.50	
DS-3	08/20/19	<0.000	Uranium (DIS)		O	08/06/14-08/20/19	31	0	<0.0002	0.006	<0.008	0.0034	1.71	LOWEST
DS-3	08/20/19	0.892	Aluminum (DIS)		O	08/06/14-08/20/19	32	32	0.114	2.043	8.17 D	1.715	0.67	
DS-3	08/20/19	<0.01	Cobalt (DIS)		O	08/06/14-08/20/19	31	0	<0.005	0.01	<0.01	0		HIGHEST
DS-3	08/20/19	6	Calcium		O	08/06/14-08/20/19	32	32	5	6	7	1	0.00	
DS-3	08/20/19	0.267	Barium (DIS)		O	08/06/14-08/20/19	31	31	0.229	0.278	0.345	0.025	0.44	
DS-3	08/20/19	0.41	Iron (DIS)		O	08/06/14-08/20/19	31	31	0.08	1.06	3.69	0.89	0.73	
DS-3	08/20/19	2	Magnesium		O	08/06/14-08/20/19	32	32	1	2	2	0		HIGHEST
DS-3	08/20/19	<0.005	Manganese (DIS)		O	08/06/14-08/20/19	31	22	<0.001	0.007	0.024	0.006	0.33	
DS-3	08/20/19	1	Potassium		O	08/06/14-08/20/19	32	28	<1	1	2	0		LOWEST
DS-3	08/20/19	1	Sodium		O	08/06/14-08/20/19	32	32	1	1	2	0		LOWEST

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DS-3	08/20/19	0.0292	Strontium (DIS)		O	08/06/14-08/20/19	31	31	0.0231	0.0291	0.0324	0.0022	0.05	
DS-3	08/20/19	<1	Chloride		O	08/06/14-08/20/19	32	3	<1	1	<1	0		HIGHEST
DS-3	08/20/19	7.69	Flow	Gallo	O	08/06/14-08/20/19	28	28	0.47	12.89	159	29.32	0.18	
DS-3	08/20/19	<0.1	Fluoride		O	08/06/14-08/20/19	32	2	0.04	0.1	<0.1	0		HIGHEST
DS-3	08/20/19	0.3	N+N		O	08/06/14-08/20/19	32	32	0.11	0.3	0.48	0.1	0.00	
DS-3	08/20/19	8.07	Field pH	s.u.	O	08/06/14-08/20/19	32	32	5.56	7.11	8.7	0.95	1.01	
DS-3	08/20/19	55.2	Field SC	umh	O	08/06/14-08/20/19	32	32	40	58.8	132	20.3	0.18	
DS-3	08/20/19	58	TDS		O	08/06/14-08/20/19	32	32	47	72	128	21	0.67	
DS-3	08/20/19	23	Alkalinity		O	08/06/14-08/20/19	32	32	17	22	29	3	0.33	
DS-3	08/20/19	21	Hardness		O	08/06/14-08/20/19	32	32	19	23	26	2	1.00	
DS-3	08/20/19	<10	TSS		O	08/06/14-08/20/19	32	4	<4	15	95	18	0.28	
DS-3	08/20/19	12.3	Water Temp	Deg	O	08/06/14-08/20/19	32	32	3.8	8.8	15.1	3	1.17	
DS-3	08/20/19	5.86	DO		O	08/06/14-08/20/19	32	32	3.72	6.9	10.8	2.1	0.50	
DS-3	08/20/19	2	Sulfate		O	08/06/14-08/20/19	32	32	1	1	2	0		HIGHEST
SP-10	08/20/19	<0.000	Antimony (DIS)		O	05/23/18-08/20/19	12	0	<0.0005	0.0005	<0.0005	0		HIGHEST
SP-10	08/20/19	<0.000	Beryllium (DIS)		O	05/23/18-08/20/19	12	0	<0.0008	0.0008	<0.0008	0		HIGHEST
SP-10	08/20/19	<0.000	Cadmium (DIS)		O	05/23/18-08/20/19	12	0	<0.00003	0.00003	<0.00003	0		HIGHEST
SP-10	08/20/19	<0.01	Chromium (DIS)		O	05/23/18-08/20/19	12	0	<0.01	0.01	<0.01	0		HIGHEST
SP-10	08/20/19	<0.002	Copper (DIS)		O	05/23/18-08/20/19	12	0	<0.002	0.002	<0.002	0		HIGHEST
SP-10	08/20/19	<0.005	Mercury (DIS)	ug/L	O	05/23/18-08/20/19	12	0	<0.000005	0.002	<0.005	0.003	1.00	HIGHEST
SP-10	08/20/19	<0.002	Molybdenum (DIS)		O	05/23/18-08/20/19	12	0	<0.002	0.002	<0.002	0		HIGHEST
SP-10	08/20/19	<0.001	Nickel (DIS)		O	05/23/18-08/20/19	12	0	<0.001	0.001	<0.001	0		HIGHEST
SP-10	08/20/19	0.0003	Selenium (DIS)		O	05/23/18-08/20/19	12	7	<0.0002	0.0003	0.0003	0.0001	0.00	HIGHEST
SP-10	08/20/19	<0.000	Silver (DIS)		O	05/23/18-08/20/19	12	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SP-10	08/20/19	<0.000	Thallium (DIS)		O	05/23/18-08/20/19	12	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SP-10	08/20/19	<0.002	Zinc (DIS)		O	05/23/18-08/20/19	12	0	<0.002	0.002	<0.002	0		HIGHEST
SP-10	08/20/19	<0.001	Arsenic (DIS)		O	05/23/18-08/20/19	12	0	<0.001	0.001	<0.001	0		HIGHEST
SP-10	08/20/19	<0.000	Lead (DIS)		O	05/23/18-08/20/19	12	0	<0.0003	0.0003	<0.0003	0		HIGHEST
SP-10	08/20/19	0.0007	Uranium (DIS)		O	05/23/18-08/20/19	12	6	0.0007	0.0044	<0.008	0.0038	0.97	LOWEST
SP-10	08/20/19	<0.009	Aluminum (DIS)		O	05/23/18-08/20/19	12	0	<0.009	0.009	<0.009	0		HIGHEST
SP-10	08/20/19	<0.01	Cobalt (DIS)		O	05/23/18-08/20/19	12	0	<0.01	0.01	<0.01	0		HIGHEST

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SP-10	08/20/19	54	Calcium		O	05/23/18-08/20/19	12	12	49	56	61	4	0.50	
SP-10	08/20/19	0.052	Barium (DIS)		O	05/23/18-08/20/19	12	12	0.04	0.051	0.056	0.004	0.25	
SP-10	08/20/19	<0.02	Iron (DIS)		O	05/23/18-08/20/19	12	0	<0.02	0.02	<0.02	0		HIGHEST
SP-10	08/20/19	20	Magnesium		O	05/23/18-08/20/19	12	12	17	20	22	2	0.00	
SP-10	08/20/19	<0.005	Manganese (DIS)		O	05/23/18-08/20/19	12	3	<0.005	0.007	0.024	0.006	0.33	LOWEST
SP-10	08/20/19	1	Potassium		O	05/23/18-08/20/19	12	7	<1	1	<1	0		HIGHEST
SP-10	08/20/19	2	Sodium		O	05/23/18-08/20/19	12	12	1	2	2	0		HIGHEST
SP-10	08/20/19	0.113	Strontium (DIS)		O	05/23/18-08/20/19	12	12	0.095	0.11	0.122	0.008	0.37	
SP-10	08/20/19	<1	Chloride		O	05/23/18-08/20/19	12	0	<1	1	<1	0		HIGHEST
SP-10	08/20/19	2.6	Flow	Gallo	O	05/23/18-08/20/19	11	11	0.58	17.1	59.69	21.6	0.67	
SP-10	08/20/19	0.1	Fluoride		O	05/23/18-08/20/19	12	12	0.1	0.1	0.1	0		HIGHEST
SP-10	08/20/19	0.22	N+N		O	05/23/18-08/20/19	12	12	0.06	0.2	0.28	0.06	0.33	
SP-10	08/20/19	8.1	Field pH	s.u.	O	05/23/18-08/20/19	12	12	6.92	7.6	8.1	0.3	1.67	HIGHEST
SP-10	08/20/19	402	Field SC	umh	O	05/23/18-08/20/19	12	12	305	396	434	37	0.16	
SP-10	08/20/19	235	TDS		O	05/23/18-08/20/19	12	12	196	221	235	14	1.00	HIGHEST
SP-10	08/20/19	220	Alkalinity		O	05/23/18-08/20/19	12	12	180	210	220	13	0.77	HIGHEST
SP-10	08/20/19	217	Hardness		O	05/23/18-08/20/19	12	12	193	221	245	16	0.25	
SP-10	08/20/19	<10	TSS		O	05/23/18-08/20/19	12	3	<10	20	68 J	20	0.50	LOWEST
SP-10	08/20/19	12.2	Water Temp	Deg	O	05/23/18-08/20/19	12	12	4.6	7.8	12.2	2.1	2.10	HIGHEST
SP-10	08/20/19	7.95	DO		O	05/23/18-08/20/19	12	12	6.76	8.01	8.93	0.58	0.10	
SP-10	08/20/19	15	Sulfate		O	05/23/18-08/20/19	12	12	8	13	17	3	0.67	
SP-11	08/21/19	<0.000	Antimony (DIS)		O	04/18/18-08/21/19	13	0	<0.0005	0.0005	<0.0005	0		HIGHEST
SP-11	08/21/19	<0.000	Beryllium (DIS)		O	04/18/18-08/21/19	13	0	<0.0008	0.0008	<0.0008	0		HIGHEST
SP-11	08/21/19	<0.000	Cadmium (DIS)		O	04/18/18-08/21/19	13	0	<0.00003	0.00003	<0.00003	0		HIGHEST
SP-11	08/21/19	<0.01	Chromium (DIS)		O	04/18/18-08/21/19	13	0	<0.01	0.01	<0.01	0		HIGHEST
SP-11	08/21/19	<0.002	Copper (DIS)		O	04/18/18-08/21/19	13	1	<0.002	0.002	0.003	0		LOWEST
SP-11	08/21/19	<0.005	Mercury (DIS)	ug/L	O	04/18/18-08/21/19	13	0	<0.000005	0.002	<0.005	0.003	1.00	HIGHEST
SP-11	08/21/19	<0.002	Molybdenum (DIS)		O	04/18/18-08/21/19	13	0	<0.002	0.002	<0.002	0		HIGHEST
SP-11	08/21/19	<0.001	Nickel (DIS)		O	04/18/18-08/21/19	13	0	<0.001	0.001	<0.001	0		HIGHEST
SP-11	08/21/19	<0.000	Selenium (DIS)		O	04/18/18-08/21/19	13	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SP-11	08/21/19	<0.000	Silver (DIS)		O	04/18/18-08/21/19	13	0	<0.0002	0.0002	<0.0002	0		HIGHEST

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SP-11	08/21/19	<0.000	Thallium (DIS)		O	04/18/18-08/21/19	13	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SP-11	08/21/19	<0.002	Zinc (DIS)		O	04/18/18-08/21/19	13	3	<0.002	0.002	0.004	0.001	0.00	LOWEST
SP-11	08/21/19	0.006	Arsenic (DIS)		O	04/18/18-08/21/19	13	13	0.005	0.006	0.008	0.001	0.00	
SP-11	08/21/19	<0.000	Lead (DIS)		O	04/18/18-08/21/19	13	0	<0.0003	0.0003	<0.0003	0		HIGHEST
SP-11	08/21/19	0.0003	Uranium (DIS)		O	04/18/18-08/21/19	13	6	0.0003	0.0045	<0.008	0.004	1.05	LOWEST
SP-11	08/21/19	0.023	Aluminum (DIS)		O	04/18/18-08/21/19	13	13	0.017	0.082	0.479	0.129	0.46	
SP-11	08/21/19	<0.01	Cobalt (DIS)		O	04/18/18-08/21/19	13	0	<0.01	0.01	<0.01	0		HIGHEST
SP-11	08/21/19	23	Calcium		O	04/18/18-08/21/19	13	13	21	23	24	1	0.00	
SP-11	08/21/19	0.304	Barium (DIS)		O	04/18/18-08/21/19	13	13	0.265	0.29	0.313	0.014	1.00	
SP-11	08/21/19	<0.02	Iron (DIS)		O	04/18/18-08/21/19	13	6	<0.02	0.04	0.17	0.04	0.50	LOWEST
SP-11	08/21/19	8	Magnesium		O	04/18/18-08/21/19	13	13	7	8	9	1	0.00	
SP-11	08/21/19	<0.005	Manganese (DIS)		O	04/18/18-08/21/19	13	0	<0.005	0.005	<0.005	0		HIGHEST
SP-11	08/21/19	1	Potassium		O	04/18/18-08/21/19	13	13	1	1	2	0		LOWEST
SP-11	08/21/19	3	Sodium		O	04/18/18-08/21/19	13	13	3	3	4	1	0.00	LOWEST
SP-11	08/21/19	0.102	Strontium (DIS)		O	04/18/18-08/21/19	13	12	0.0856	0.1	0.104	0.005	0.40	
SP-11	08/21/19	<1	Chloride		O	04/18/18-08/21/19	13	0	<1	1	<1	0		HIGHEST
SP-11	08/21/19	0.1	Fluoride		O	04/18/18-08/21/19	13	13	0.1	0.2	0.2	0.1	1.00	LOWEST
SP-11	08/21/19	0.26	N+N		O	04/18/18-08/21/19	13	13	0.22	0.25	0.31	0.03	0.33	
SP-11	08/21/19	7.59	Field pH	s.u.	O	04/18/18-08/21/19	13	13	6.28	7.46	7.98	0.49	0.27	
SP-11	08/21/19	192	Field SC	umh	O	04/18/18-08/21/19	13	13	171	187	196	8	0.62	
SP-11	08/21/19	117	TDS		O	04/18/18-08/21/19	13	13	99	118	133	10	0.10	
SP-11	08/21/19	94	Alkalinity		O	04/18/18-08/21/19	13	13	82	92	95	3	0.67	
SP-11	08/21/19	92	Hardness		O	04/18/18-08/21/19	13	13	81	91	95	4	0.25	
SP-11	08/21/19	<10	TSS		O	04/18/18-08/21/19	13	1	<10	10	<10	0		HIGHEST
SP-11	08/21/19	6.8	Water Temp	Deg	O	04/18/18-08/21/19	13	13	5.6	6.4	7.4	0.5	0.80	
SP-11	08/21/19	6.93	DO		O	04/18/18-08/21/19	13	13	6.09	7.13	8.36	0.63	0.32	
SP-11	08/21/19	7	Sulfate		O	04/18/18-08/21/19	13	13	5	7	8	1	0.00	
SP-12	08/21/19	<0.000	Antimony (DIS)		O	04/18/18-08/21/19	14	0	<0.0005	0.0005	<0.0005	0		HIGHEST
SP-12	08/21/19	<0.000	Beryllium (DIS)		O	04/18/18-08/21/19	14	0	<0.0008	0.0008	<0.0008	0		HIGHEST
SP-12	08/21/19	<0.000	Cadmium (DIS)		O	04/18/18-08/21/19	14	0	<0.00003	0.00003	<0.00003	0		HIGHEST
SP-12	08/21/19	<0.01	Chromium (DIS)		O	04/18/18-08/21/19	14	0	<0.01	0.01	<0.01	0		HIGHEST

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SP-12	08/21/19	<0.002	Copper (DIS)		O	04/18/18-08/21/19	14	0	<0.002	0.002	<0.002	0		HIGHEST
SP-12	08/21/19	<0.005	Mercury (DIS)	ug/L	O	04/18/18-08/21/19	14	1	<0.000005	0.003	<0.005	0.003	0.67	HIGHEST
SP-12	08/21/19	<0.002	Molybdenum (DIS)		O	04/18/18-08/21/19	14	0	<0.002	0.002	<0.002	0		HIGHEST
SP-12	08/21/19	<0.001	Nickel (DIS)		O	04/18/18-08/21/19	14	0	<0.001	0.001	<0.001	0		HIGHEST
SP-12	08/21/19	<0.000	Selenium (DIS)		O	04/18/18-08/21/19	14	10	0.0002	0.0002	0.0003	0		LOWEST
SP-12	08/21/19	<0.000	Silver (DIS)		O	04/18/18-08/21/19	14	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SP-12	08/21/19	<0.000	Thallium (DIS)		O	04/18/18-08/21/19	14	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SP-12	08/21/19	<0.002	Zinc (DIS)		O	04/18/18-08/21/19	14	3	<0.002	0.002	0.004	0.001	0.00	LOWEST
SP-12	08/21/19	<0.001	Arsenic (DIS)		O	04/18/18-08/21/19	14	0	<0.001	0.001	<0.001	0		HIGHEST
SP-12	08/21/19	<0.000	Lead (DIS)		O	04/18/18-08/21/19	14	0	<0.0003	0.0003	<0.0003	0		HIGHEST
SP-12	08/21/19	0.0005	Uranium (DIS)		O	04/18/18-08/21/19	14	8	0.0005	0.0038	<0.008	0.0038	0.87	LOWEST
SP-12	08/21/19	<0.009	Aluminum (DIS)		O	04/18/18-08/21/19	14	1	<0.009	0.009	0.014	0.001	0.00	LOWEST
SP-12	08/21/19	<0.01	Cobalt (DIS)		O	04/18/18-08/21/19	14	0	<0.01	0.01	<0.01	0		HIGHEST
SP-12	08/21/19	52	Calcium		O	04/18/18-08/21/19	14	14	47	54	61	4	0.50	
SP-12	08/21/19	0.172	Barium (DIS)		O	04/18/18-08/21/19	14	14	0.157	0.176	0.192	0.01	0.40	
SP-12	08/21/19	<0.02	Iron (DIS)		O	04/18/18-08/21/19	14	5	<0.02	0.05	0.29	0.07	0.43	LOWEST
SP-12	08/21/19	23	Magnesium		O	04/18/18-08/21/19	14	14	20	23	26	2	0.00	
SP-12	08/21/19	<0.005	Manganese (DIS)		O	04/18/18-08/21/19	14	2	<0.005	0.007	0.02	0.005	0.40	LOWEST
SP-12	08/21/19	1	Potassium		O	04/18/18-08/21/19	14	14	1	1	2	0		LOWEST
SP-12	08/21/19	2	Sodium		O	04/18/18-08/21/19	14	14	2	2	3	0		LOWEST
SP-12	08/21/19	0.104	Strontium (DIS)		O	04/18/18-08/21/19	14	13	0.0968	0.107	0.115	0.006	0.50	
SP-12	08/21/19	10	Chloride		O	04/18/18-08/21/19	14	14	5	8	10	2	1.00	HIGHEST
SP-12	08/21/19	0.2	Fluoride		O	04/18/18-08/21/19	14	14	0.2	0.2	0.2	0		HIGHEST
SP-12	08/21/19	0.26	N+N		O	04/18/18-08/21/19	14	14	0.12	0.38	0.69	0.15	0.80	
SP-12	08/21/19	8.1	Field pH	s.u.	O	04/18/18-08/21/19	13	13	6.76	7.6	8.1	0.3	1.67	HIGHEST
SP-12	08/21/19	419	Field SC	umh	O	04/18/18-08/21/19	13	13	400	436	473	20	0.85	
SP-12	08/21/19	239	TDS		O	04/18/18-08/21/19	14	14	230	245	262	10	0.60	
SP-12	08/21/19	200	Alkalinity		O	04/18/18-08/21/19	14	14	180	202	220	11	0.18	
SP-12	08/21/19	222	Hardness		O	04/18/18-08/21/19	14	14	200	231	258	15	0.60	
SP-12	08/21/19	<10	TSS		O	04/18/18-08/21/19	14	8	<10	41	187	52	0.60	LOWEST
SP-12	08/21/19	8.7	Water Temp	Deg	O	04/18/18-08/21/19	13	13	5.1	6.6	8.7	1.1	1.91	HIGHEST

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Data Comparison Summary

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SP-12	08/21/19	5.64	DO		O	04/18/18-08/21/19	13	13	3.32	6.52	10.38	2.07	0.43	
SP-12	08/21/19	21	Sulfate		O	04/18/18-08/21/19	14	14	13	23	28	4	0.50	
SP-3	08/20/19	<0.000	Antimony (DIS)		O	07/20/11-08/20/19	30	0	<0.0005	0.0007	<0.003	0.0006	0.33	LOWEST
SP-3	08/20/19	<0.000	Beryllium (DIS)		O	07/20/11-08/20/19	30	1	<0.0008	0.0008	<0.001	0.0001	0.00	LOWEST
SP-3	08/20/19	<0.000	Cadmium (DIS)		O	07/20/11-08/20/19	30	2	<0.00003	0.00004	0.00015	0.00002	0.50	LOWEST
SP-3	08/20/19	<0.01	Chromium (DIS)		O	07/20/11-08/20/19	30	2	0.001	0.01	0.02	0		
SP-3	08/20/19	<0.002	Copper (DIS)		O	07/20/11-08/20/19	30	13	<0.001	0.004	0.026	0.005	0.40	
SP-3	08/20/19	0.005	Mercury (DIS)	ug/L	O	07/20/11-08/20/19	29	13	<0.000005	0.001	0.02	0.004	1.00	
SP-3	08/20/19	<0.002	Molybdenum (DIS)		O	07/20/11-08/20/19	30	0	<0.001	0.002	<0.005	0.001	0.00	
SP-3	08/20/19	<0.001	Nickel (DIS)		O	07/20/11-08/20/19	30	14	<0.001	0.003	0.015	0.003	0.67	LOWEST
SP-3	08/20/19	<0.000	Selenium (DIS)		O	07/20/11-08/20/19	30	6	<0.0002	0.0003	<0.001	0.0002	0.50	LOWEST
SP-3	08/20/19	<0.000	Silver (DIS)		O	07/20/11-08/20/19	30	0	<0.0002	0.0002	<0.0005	0.0001	0.00	LOWEST
SP-3	08/20/19	<0.000	Thallium (DIS)		O	07/20/11-08/20/19	30	1	<0.0002	0.0002	<0.0002	0		HIGHEST
SP-3	08/20/19	<0.002	Zinc (DIS)		O	07/20/11-08/20/19	30	11	<0.002	0.005	0.029	0.005	0.60	LOWEST
SP-3	08/20/19	0.002	Arsenic (DIS)		O	07/20/11-08/20/19	30	28	0.001	0.002	0.005	0.001	0.00	
SP-3	08/20/19	<0.000	Lead (DIS)		O	07/20/11-08/20/19	30	8	<0.0003	0.0005	0.0036	0.0006	0.33	LOWEST
SP-3	08/20/19	<0.000	Uranium (DIS)		O	07/20/11-08/20/19	30	1	<0.0002	0.0059	<0.008	0.0035	1.63	LOWEST
SP-3	08/20/19	0.156	Aluminum (DIS)		O	07/20/11-08/20/19	31	31	0.033	1.261	10.8 D	2.283	0.48	
SP-3	08/20/19	<0.01	Cobalt (DIS)		O	07/20/11-08/20/19	30	0	<0.005	0.01	<0.01	0		HIGHEST
SP-3	08/20/19	25	Calcium		O	07/20/11-08/20/19	31	31	14	24	32	5	0.20	
SP-3	08/20/19	0.29	Barium (DIS)		O	07/20/11-08/20/19	30	30	0.205	0.29	0.53	0.06	0.00	
SP-3	08/20/19	0.1	Iron (DIS)		O	07/20/11-08/20/19	30	30	0.02	0.7	6.89	1.4	0.43	
SP-3	08/20/19	5	Magnesium		O	07/20/11-08/20/19	31	31	3	5	7	1	0.00	
SP-3	08/20/19	0.011	Manganese (DIS)		O	07/20/11-08/20/19	30	10	0.001	0.009	0.068	0.012	0.17	
SP-3	08/20/19	1	Potassium		O	07/20/11-08/20/19	31	31	1	1	3	1	0.00	LOWEST
SP-3	08/20/19	3	Sodium		O	07/20/11-08/20/19	31	31	2	2	3	1	1.00	HIGHEST
SP-3	08/20/19	0.0724	Strontium (DIS)		O	07/20/11-08/20/19	30	28	0.0439	0.0725	<0.1	0.0161	0.01	
SP-3	08/20/19	1	Chloride		O	07/20/11-08/20/19	31	5	1	1	2	0		LOWEST
SP-3	08/20/19	0.94	Flow	Gallo	O	07/20/11-08/20/19	29	28	0.009	1.59	8.1	1.93	0.34	
SP-3	08/20/19	0.1	Fluoride		O	07/20/11-08/20/19	31	31	0.1	0.1	0.1	0		HIGHEST
SP-3	08/20/19	0.22	N+N		O	07/20/11-08/20/19	31	31	0.1	0.28	0.43	0.07	0.86	

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SP-3	08/20/19	7.73	Field pH	s.u.	O	07/20/11-08/20/19	30	30	6.2	7.4	8.66	0.57	0.58	
SP-3	08/20/19	168	Field SC	umh	O	07/20/11-08/20/19	31	31	103	166	223	38	0.05	
SP-3	08/20/19	123	TDS		O	07/20/11-08/20/19	31	31	113	140	214	22	0.77	
SP-3	08/20/19	83	Alkalinity		O	07/20/11-08/20/19	31	31	44	77	100	20	0.30	
SP-3	08/20/19	83	Hardness		O	07/20/11-08/20/19	31	31	48	81	109	18	0.11	
SP-3	08/20/19	61	TSS		O	08/28/13-08/20/19	29	17	<10	43	191	50	0.36	
SP-3	08/20/19	17	Water Temp	Deg	O	07/20/11-08/20/19	31	31	1.7	8	17	4	2.25	HIGHEST
SP-3	08/20/19	5.02	DO		O	07/20/11-08/20/19	31	31	5.02	9.56	19.38	2.45	1.85	LOWEST
SP-3	08/20/19	7	Sulfate		O	07/20/11-08/20/19	31	31	3	5	7	1	2.00	HIGHEST
SP-4	08/21/19	<0.000	Antimony (DIS)		O	07/21/11-08/21/19	52	0	<0.0005	0.0006	<0.003	0.0006	0.17	LOWEST
SP-4	08/21/19	<0.000	Beryllium (DIS)		O	07/21/11-08/21/19	52	0	<0.0008	0.0008	<0.001	0		LOWEST
SP-4	08/21/19	<0.000	Cadmium (DIS)		O	07/21/11-08/21/19	52	0	<0.00003	0.00003	<0.00008	0.00001	0.00	LOWEST
SP-4	08/21/19	<0.01	Chromium (DIS)		O	07/21/11-08/21/19	52	0	<0.001	0.01	<0.01	0		HIGHEST
SP-4	08/21/19	<0.002	Copper (DIS)		O	07/21/11-08/21/19	52	1	<0.001	0.002	0.017	0.002	0.00	
SP-4	08/21/19	<0.005	Mercury (DIS)	ug/L	O	07/21/11-08/21/19	51	1	<0.000005	0.001	<0.005	0.002	2.00	HIGHEST
SP-4	08/21/19	<0.002	Molybdenum (DIS)		O	07/21/11-08/21/19	52	0	<0.001	0.002	<0.005	0.001	0.00	
SP-4	08/21/19	<0.001	Nickel (DIS)		O	07/21/11-08/21/19	52	0	<0.001	0.002	<0.01	0.002	0.50	LOWEST
SP-4	08/21/19	0.0004	Selenium (DIS)		O	07/21/11-08/21/19	52	48	<0.0002	0.0004	<0.001	0.0002	0.00	
SP-4	08/21/19	<0.000	Silver (DIS)		O	07/21/11-08/21/19	52	0	<0.0002	0.0002	<0.0005	0.0001	0.00	LOWEST
SP-4	08/21/19	0.0002	Thallium (DIS)		O	07/21/11-08/21/19	52	52	0.0002	0.0003	0.0004	0.0001	1.00	LOWEST
SP-4	08/21/19	<0.002	Zinc (DIS)		O	07/21/11-08/21/19	52	14	0.002	0.003	<0.01	0.002	0.50	LOWEST
SP-4	08/21/19	<0.001	Arsenic (DIS)		O	07/21/11-08/21/19	52	0	<0.001	0.001	<0.003	0		LOWEST
SP-4	08/21/19	<0.000	Lead (DIS)		O	07/21/11-08/21/19	52	0	<0.0003	0.0003	<0.0005	0		LOWEST
SP-4	08/21/19	0.0004	Uranium (DIS)		O	07/21/11-08/21/19	52	12	0.0004	0.0063	<0.008	0.0032	1.84	LOWEST
SP-4	08/21/19	<0.009	Aluminum (DIS)		O	07/21/11-08/21/19	53	5	<0.009	0.011	0.031	0.006	0.33	LOWEST
SP-4	08/21/19	<0.01	Cobalt (DIS)		O	07/21/11-08/21/19	52	0	<0.005	0.01	<0.01	0		HIGHEST
SP-4	08/21/19	47	Calcium		O	07/21/11-08/21/19	53	53	42	51	56	3	1.33	
SP-4	08/21/19	0.112	Barium (DIS)		O	07/21/11-08/21/19	52	52	0.101	0.112	0.121	0.005	0.00	
SP-4	08/21/19	<0.02	Iron (DIS)		O	07/21/11-08/21/19	52	13	<0.02	0.03	0.14	0.02	0.50	LOWEST
SP-4	08/21/19	24	Magnesium		O	07/21/11-08/21/19	53	53	24	26	29	1	2.00	LOWEST
SP-4	08/21/19	0.008	Manganese (DIS)		O	07/21/11-08/21/19	52	26	0.004	0.007	0.038	0.005	0.20	

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SP-4	08/21/19	2	Potassium		O	07/21/11-08/21/19	53	53	1	2	2	0		HIGHEST
SP-4	08/21/19	2	Sodium		O	07/21/11-08/21/19	53	53	2	2	2	0		HIGHEST
SP-4	08/21/19	0.0706	Strontium (DIS)		O	07/21/11-08/21/19	52	48	0.0641	0.0739	<0.1	0.0072	0.46	
SP-4	08/21/19	<1	Chloride		O	07/21/11-08/21/19	53	14	1	1	1	0		HIGHEST
SP-4	08/21/19	11.2	Flow	Gallo	O	07/21/11-08/21/19	45	45	NF-ICE	8.9	50.27	10.4	0.22	
SP-4	08/21/19	0.2	Fluoride		O	07/21/11-08/21/19	53	53	0.2	0.2	0.3	0		LOWEST
SP-4	08/21/19	0.32	N+N		O	07/21/11-08/21/19	53	53	0.18	0.25	0.35	0.03	2.33	
SP-4	08/21/19	7.85	Field pH	s.u.	O	07/21/11-08/21/19	52	52	6.95	7.7	8.63	0.29	0.52	
SP-4	08/21/19	415	Field SC	umh	O	07/21/11-08/21/19	53	53	162	424	481	47	0.19	
SP-4	08/21/19	229	TDS		O	07/21/11-08/21/19	53	53	202	247	272	14	1.29	
SP-4	08/21/19	200	Alkalinity		O	07/21/11-08/21/19	53	53	190	201	210	5	0.20	
SP-4	08/21/19	217	Hardness		O	07/21/11-08/21/19	53	53	208	235	255	12	1.50	
SP-4	08/21/19	<10	TSS		O	08/28/13-08/21/19	50	30	5	50	890 D	129	0.31	
SP-4	08/21/19	7.1	Water Temp	Deg	O	07/21/11-08/21/19	52	52	0.11	6.3	12.2	2.1	0.38	
SP-4	08/21/19	9.84	DO		O	07/21/11-08/21/19	53	53	6.7	9.91	13.95	1.36	0.05	
SP-4	08/21/19	32	Sulfate		O	07/21/11-08/21/19	53	53	10	36	45	7	0.57	
SP-5	08/20/19	<0.000	Antimony (DIS)		O	08/28/18-08/20/19	4	0	<0.0005	0.0005	<0.0005	0		HIGHEST
SP-5	08/20/19	<0.000	Beryllium (DIS)		O	08/28/18-08/20/19	4	0	<0.0008	0.0008	<0.0008	0		HIGHEST
SP-5	08/20/19	<0.000	Cadmium (DIS)		O	08/28/18-08/20/19	4	0	<0.00003	0.00003	<0.00003	0		HIGHEST
SP-5	08/20/19	<0.01	Chromium (DIS)		O	08/28/18-08/20/19	4	0	<0.01	0.01	<0.01	0		HIGHEST
SP-5	08/20/19	<0.002	Copper (DIS)		O	08/28/18-08/20/19	4	0	<0.002	0.002	<0.002	0		HIGHEST
SP-5	08/20/19	<0.005	Mercury (DIS)	ug/L	O	08/28/18-08/20/19	4	0	<0.000005	0.003	<0.005	0.003	0.67	HIGHEST
SP-5	08/20/19	<0.002	Molybdenum (DIS)		O	08/28/18-08/20/19	4	0	<0.002	0.002	<0.002	0		HIGHEST
SP-5	08/20/19	<0.001	Nickel (DIS)		O	08/28/18-08/20/19	4	0	<0.001	0.001	<0.001	0		HIGHEST
SP-5	08/20/19	<0.000	Selenium (DIS)		O	08/28/18-08/20/19	4	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SP-5	08/20/19	<0.000	Silver (DIS)		O	08/28/18-08/20/19	4	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SP-5	08/20/19	<0.000	Thallium (DIS)		O	08/28/18-08/20/19	4	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SP-5	08/20/19	<0.002	Zinc (DIS)		O	08/28/18-08/20/19	4	0	<0.002	0.002	<0.002	0		HIGHEST
SP-5	08/20/19	<0.001	Arsenic (DIS)		O	08/28/18-08/20/19	4	0	<0.001	0.001	<0.001	0		HIGHEST
SP-5	08/20/19	<0.000	Lead (DIS)		O	08/28/18-08/20/19	4	0	<0.0003	0.0003	<0.0003	0		HIGHEST
SP-5	08/20/19	0.0005	Uranium (DIS)		O	08/28/18-08/20/19	4	2	0.0005	0.0043	<0.008	0.0043	0.88	LOWEST

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SP-5	08/20/19	0.029	Aluminum (DIS)		O	08/28/18-08/20/19	4	1	<0.009	0.014	0.029	0.01	1.50	HIGHEST
SP-5	08/20/19	<0.01	Cobalt (DIS)		O	08/28/18-08/20/19	4	0	<0.01	0.01	<0.01	0		HIGHEST
SP-5	08/20/19	57	Calcium		O	08/28/18-08/20/19	4	4	57	60	63	2	1.50	LOWEST
SP-5	08/20/19	0.058	Barium (DIS)		O	08/28/18-08/20/19	4	4	0.053	0.057	0.059	0.003	0.33	
SP-5	08/20/19	<0.02	Iron (DIS)		O	08/28/18-08/20/19	4	0	<0.02	0.02	<0.02	0		HIGHEST
SP-5	08/20/19	18	Magnesium		O	08/28/18-08/20/19	4	4	18	18	19	1	0.00	LOWEST
SP-5	08/20/19	0.017	Manganese (DIS)		O	08/28/18-08/20/19	4	2	<0.005	0.011	0.017	0.007	0.86	HIGHEST
SP-5	08/20/19	<1	Potassium		O	08/28/18-08/20/19	4	0	<1	1	<1	0		HIGHEST
SP-5	08/20/19	2	Sodium		O	08/28/18-08/20/19	4	4	2	2	2	0		HIGHEST
SP-5	08/20/19	0.136	Strontium (DIS)		O	08/28/18-08/20/19	4	4	0.126	0.134	0.141	0.006	0.33	
SP-5	08/20/19	<1	Chloride		O	08/28/18-08/20/19	4	0	<1	1	<1	0		HIGHEST
SP-5	08/20/19	1.93	Flow	Gallo	O	08/28/18-08/20/19	4	4	0.6	1.52	2.6	0.92	0.45	
SP-5	08/20/19	<0.1	Fluoride		O	08/28/18-08/20/19	4	2	0.1	0.1	0.1	0		HIGHEST
SP-5	08/20/19	0.02	N+N		O	08/28/18-08/20/19	4	4	0.02	0.03	0.04	0.01	1.00	LOWEST
SP-5	08/20/19	7.99	Field pH	s.u.	O	08/28/18-08/20/19	4	4	7.28	7.76	8.09	0.37	0.62	
SP-5	08/20/19	412	Field SC	umh	O	08/28/18-08/20/19	4	4	389	402	414	13	0.77	
SP-5	08/20/19	233	TDS		O	08/28/18-08/20/19	4	4	223	227	233	5	1.20	HIGHEST
SP-5	08/20/19	230	Alkalinity		O	08/28/18-08/20/19	4	4	220	222	230	5	1.60	HIGHEST
SP-5	08/20/19	216	Hardness		O	08/28/18-08/20/19	4	4	216	225	237	9	1.00	LOWEST
SP-5	08/20/19	89	TSS		O	08/28/18-08/20/19	4	4	28	76	137 J	48	0.27	
SP-5	08/20/19	16.8	Water Temp	Deg	O	08/28/18-08/20/19	4	4	5.2	11.8	16.8	5.8	0.86	HIGHEST
SP-5	08/20/19	6.29	DO		O	08/28/18-08/20/19	4	4	6.18	6.59	7.4	0.55	0.55	
SP-5	08/20/19	10	Sulfate		O	08/28/18-08/20/19	4	4	9	10	11	1	0.00	
SP-6	08/20/19	<0.000	Antimony (DIS)		O	10/12/11-08/20/19	45	0	<0.0005	0.0006	<0.003	0.0005	0.20	LOWEST
SP-6	08/20/19	<0.000	Beryllium (DIS)		O	10/12/11-08/20/19	45	0	<0.0008	0.0008	<0.001	0		LOWEST
SP-6	08/20/19	<0.000	Cadmium (DIS)		O	10/12/11-08/20/19	45	0	<0.00003	0.00003	<0.00008	0.00001	0.00	LOWEST
SP-6	08/20/19	<0.01	Chromium (DIS)		O	10/12/11-08/20/19	45	0	<0.001	0.01	<0.01	0		HIGHEST
SP-6	08/20/19	<0.002	Copper (DIS)		O	10/12/11-08/20/19	45	0	<0.001	0.002	<0.002	0		HIGHEST
SP-6	08/20/19	<0.005	Mercury (DIS)	ug/L	O	10/12/11-08/20/19	44	1	<0.000005	0.001	<0.005	0.002	2.00	HIGHEST
SP-6	08/20/19	<0.002	Molybdenum (DIS)		O	10/12/11-08/20/19	45	0	<0.001	0.002	<0.005	0.001	0.00	
SP-6	08/20/19	<0.001	Nickel (DIS)		O	10/12/11-08/20/19	45	1	<0.001	0.001	<0.01	0.002	0.00	LOWEST

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Quarterly Monitoring

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SP-6	08/20/19	0.0002	Selenium (DIS)		O	10/12/11-08/20/19	45	13	<0.0002	0.0002	<0.001	0.0002	0.00	LOWEST
SP-6	08/20/19	<0.000	Silver (DIS)		O	10/12/11-08/20/19	45	0	<0.0002	0.0002	<0.0005	0.0001	0.00	LOWEST
SP-6	08/20/19	0.0005	Thallium (DIS)		O	10/12/11-08/20/19	45	45	0.0004	0.0005	0.0007	0.0001	0.00	
SP-6	08/20/19	<0.002	Zinc (DIS)		O	10/12/11-08/20/19	45	7	0.001	0.002	<0.01	0.002	0.00	
SP-6	08/20/19	<0.001	Arsenic (DIS)		O	10/12/11-08/20/19	45	0	<0.001	0.001	<0.003	0		LOWEST
SP-6	08/20/19	<0.000	Lead (DIS)		O	10/12/11-08/20/19	45	1	<0.0003	0.0003	<0.0005	0		LOWEST
SP-6	08/20/19	0.0004	Uranium (DIS)		O	10/12/11-08/20/19	45	15	<0.0003	0.0053	<0.008	0.0037	1.32	
SP-6	08/20/19	<0.009	Aluminum (DIS)		O	10/12/11-08/20/19	46	19	0.004	0.02	0.16	0.03	0.37	
SP-6	08/20/19	<0.01	Cobalt (DIS)		O	10/12/11-08/20/19	45	0	<0.005	0.01	<0.01	0		HIGHEST
SP-6	08/20/19	36	Calcium		O	10/12/11-08/20/19	46	46	32	35	38	2	0.50	
SP-6	08/20/19	0.212	Barium (DIS)		O	10/12/11-08/20/19	45	45	0.168	0.192	0.217	0.01	2.00	
SP-6	08/20/19	<0.02	Iron (DIS)		O	10/12/11-08/20/19	45	14	<0.02	0.03	0.19	0.03	0.33	LOWEST
SP-6	08/20/19	14	Magnesium		O	10/12/11-08/20/19	46	46	12	13	16	1	1.00	
SP-6	08/20/19	<0.005	Manganese (DIS)		O	10/12/11-08/20/19	45	7	<0.001	0.009	0.102	0.018	0.22	
SP-6	08/20/19	1	Potassium		O	10/12/11-08/20/19	46	9	1	1	1	0		HIGHEST
SP-6	08/20/19	2	Sodium		O	10/12/11-08/20/19	46	46	2	2	2	0		HIGHEST
SP-6	08/20/19	0.0787	Strontium (DIS)		O	10/12/11-08/20/19	45	43	0.0654	0.0734	<0.1	0.0064	0.83	
SP-6	08/20/19	1	Chloride		O	10/12/11-08/20/19	46	11	1	1	2	0		LOWEST
SP-6	08/20/19	0.98	Flow	Gallo	O	10/12/11-08/20/19	44	36	0.273	1.3	3.5	0.82	0.39	
SP-6	08/20/19	0.1	Fluoride		O	10/12/11-08/20/19	46	46	0.1	0.2	0.2	0		LOWEST
SP-6	08/20/19	0.46	N+N		O	10/12/11-08/20/19	46	46	0.31	0.39	0.68	0.07	1.00	
SP-6	08/20/19	7.75	Field pH	s.u.	O	10/12/11-08/20/19	45	45	5.81	7.35	8.72	0.65	0.62	
SP-6	08/20/19	284	Field SC	umh	O	10/12/11-08/20/19	46	46	188	268	327	19	0.84	
SP-6	08/20/19	169	TDS		O	10/12/11-08/20/19	46	46	145	161	188	8	1.00	
SP-6	08/20/19	150	Alkalinity		O	10/12/11-08/20/19	46	46	120	135	160	7	2.14	
SP-6	08/20/19	146	Hardness		O	10/12/11-08/20/19	46	46	129	141	160	7	0.71	
SP-6	08/20/19	73	TSS		O	08/28/13-08/20/19	44	14	<4	34	216 H	49	0.80	
SP-6	08/20/19	9.1	Water Temp	Deg	O	10/12/11-08/20/19	45	45	4.4	7.4	10.29	1.4	1.21	
SP-6	08/20/19	8.73	DO		O	10/12/11-08/20/19	46	46	6.7	15.79	282	40.16	0.18	
SP-6	08/20/19	10	Sulfate		O	10/12/11-08/20/19	46	46	7	9	12	2	0.50	
SP-7	08/21/19	<0.000	Antimony (DIS)		O	03/26/15-08/21/19	49	0	<0.0005	0.0005	<0.0005	0		HIGHEST

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SP-7	08/21/19	<0.000	Beryllium (DIS)		O	03/26/15-08/21/19	49	0	<0.0008	0.0008	<0.0008	0		HIGHEST
SP-7	08/21/19	<0.000	Cadmium (DIS)		O	03/26/15-08/21/19	49	0	<0.00003	0.00003	<0.00003	0		HIGHEST
SP-7	08/21/19	<0.01	Chromium (DIS)		O	03/26/15-08/21/19	49	0	<0.01	0.01	<0.01	0		HIGHEST
SP-7	08/21/19	<0.002	Copper (DIS)		O	03/26/15-08/21/19	49	2	<0.002	0.002	0.015	0.002	0.00	LOWEST
SP-7	08/21/19	<0.005	Mercury (DIS)	ug/L	O	03/26/15-08/21/19	49	1	<0.000005	0.001	<0.005	0.002	2.00	HIGHEST
SP-7	08/21/19	<0.002	Molybdenum (DIS)		O	03/26/15-08/21/19	49	0	<0.002	0.002	<0.002	0		HIGHEST
SP-7	08/21/19	<0.001	Nickel (DIS)		O	03/26/15-08/21/19	49	0	<0.001	0.001	<0.001	0		HIGHEST
SP-7	08/21/19	0.0003	Selenium (DIS)		O	03/26/15-08/21/19	49	45	<0.0002	0.0003	0.0004	0.0001	0.00	
SP-7	08/21/19	<0.000	Silver (DIS)		O	03/26/15-08/21/19	49	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SP-7	08/21/19	0.001	Thallium (DIS)		O	03/26/15-08/21/19	49	49	0.0007	0.001	0.0011	0		
SP-7	08/21/19	<0.002	Zinc (DIS)		O	03/26/15-08/21/19	49	2	<0.002	0.002	0.003	0		LOWEST
SP-7	08/21/19	0.004	Arsenic (DIS)		O	03/26/15-08/21/19	49	49	0.003	0.004	0.004	0		HIGHEST
SP-7	08/21/19	<0.000	Lead (DIS)		O	03/26/15-08/21/19	49	1	<0.0003	0.0003	0.0006	0		LOWEST
SP-7	08/21/19	0.0008	Uranium (DIS)		O	03/26/15-08/21/19	49	8	0.0008	0.0068	<0.008	0.0027	2.22	LOWEST
SP-7	08/21/19	<0.009	Aluminum (DIS)		O	03/26/15-08/21/19	50	2	<0.009	0.016	0.311	0.043	0.16	LOWEST
SP-7	08/21/19	<0.01	Cobalt (DIS)		O	03/26/15-08/21/19	49	0	<0.01	0.01	<0.01	0		HIGHEST
SP-7	08/21/19	41	Calcium		O	03/26/15-08/21/19	50	50	40	43	46	2	1.00	
SP-7	08/21/19	0.118	Barium (DIS)		O	03/26/15-08/21/19	49	49	0.1	0.112	0.122	0.004	1.50	
SP-7	08/21/19	<0.02	Iron (DIS)		O	03/26/15-08/21/19	49	4	<0.02	0.03	0.36	0.05	0.20	LOWEST
SP-7	08/21/19	14	Magnesium		O	03/26/15-08/21/19	50	50	13	15	16	1	1.00	
SP-7	08/21/19	<0.005	Manganese (DIS)		O	03/26/15-08/21/19	49	1	<0.005	0.005	<0.005	0		HIGHEST
SP-7	08/21/19	3	Potassium		O	03/26/15-08/21/19	50	50	2	3	3	0		HIGHEST
SP-7	08/21/19	5	Sodium		O	03/26/15-08/21/19	50	50	4	5	5	0		HIGHEST
SP-7	08/21/19	0.169	Strontium (DIS)		O	03/26/15-08/21/19	49	48	0.15	0.166	0.181	0.006	0.50	
SP-7	08/21/19	2	Chloride		O	03/26/15-08/21/19	50	50	1	2	2	0		HIGHEST
SP-7	08/21/19	17.1	Flow	Gallo	O	03/26/15-08/21/19	43	43	6.7	25.4	136	25.4	0.33	
SP-7	08/21/19	0.3	Fluoride		O	03/26/15-08/21/19	50	50	0.3	0.3	0.4	0		LOWEST
SP-7	08/21/19	0.37	N+N		O	03/26/15-08/21/19	50	50	0.27 J	0.31	0.41	0.03	2.00	
SP-7	08/21/19	7.79	Field pH	s.u.	O	03/26/15-08/21/19	49	49	6.17	7.4	8.18	0.33	1.18	
SP-7	08/21/19	325	Field SC	umh	O	03/26/15-08/21/19	50	50	196	323	354	29	0.07	
SP-7	08/21/19	190	TDS		O	03/26/15-08/21/19	50	50	173	187	200	7	0.43	

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SP-7	08/21/19	170	Alkalinity		O	03/26/15-08/21/19	50	50	160	166	170	5	0.80	HIGHEST
SP-7	08/21/19	159	Hardness		O	03/26/15-08/21/19	50	50	153	167	178	6	1.33	
SP-7	08/21/19	<10	TSS		O	03/26/15-08/21/19	50	7	<4	14	146	20	0.20	
SP-7	08/21/19	7.9	Water Temp	Deg	O	03/26/15-08/21/19	49	49	5.07	6.6	7.9	0.7	1.86	HIGHEST
SP-7	08/21/19	2.87	DO		O	03/26/15-08/21/19	50	50	2	3.92	10.98	1.65	0.64	
SP-7	08/21/19	11	Sulfate		O	03/26/15-08/21/19	50	50	7	10	12	1	1.00	
SW-1	08/21/19	<0.000	Antimony (TRC)		O	05/24/11-08/21/19	74	0	<0.0005	0.0008	<0.005	0.0008	0.37	LOWEST
SW-1	08/21/19	<0.000	Beryllium (TRC)		O	05/24/11-08/21/19	74	0	<0.0008	0.0008	<0.001	0.0001	0.00	LOWEST
SW-1	08/21/19	<0.000	Cadmium (TRC)		O	05/24/11-08/21/19	74	4	<0.00003	0.00004	0.0002	0.00002	0.50	LOWEST
SW-1	08/21/19	<0.01	Chromium (TRC)		O	05/24/11-08/21/19	74	2	<0.001	0.01	<0.01	0		HIGHEST
SW-1	08/21/19	<0.002	Copper (TRC)		O	05/24/11-08/21/19	74	5	<0.001	0.002	0.003	0		
SW-1	08/21/19	<0.005	Mercury (TRC)	ug/L	O	05/24/11-08/21/19	74	11	<0.000005	0.001	0.011	0.002	2.00	
SW-1	08/21/19	<0.002	Molybdenum (TRC)		O	05/24/11-08/21/19	74	0	<0.001	0.002	<0.005	0.001	0.00	
SW-1	08/21/19	<0.001	Nickel (TRC)		O	05/24/11-08/21/19	74	11	<0.001	0.002	<0.01	0.002	0.50	LOWEST
SW-1	08/21/19	<0.000	Selenium (TRC)		O	05/24/11-08/21/19	74	0	<0.0002	0.0003	<0.001	0.0002	0.50	LOWEST
SW-1	08/21/19	<0.000	Silver (TRC)		O	05/24/11-08/21/19	74	0	<0.0002	0.0002	<0.0005	0.0001	0.00	LOWEST
SW-1	08/21/19	<0.000	Thallium (TRC)		O	05/24/11-08/21/19	74	0	<0.002	0.0002	<0.0002	0		HIGHEST
SW-1	08/21/19	<0.002	Zinc (TRC)		O	05/24/11-08/21/19	74	26	<0.002	0.003	<0.01	0.002	0.50	LOWEST
SW-1	08/21/19	<0.001	Arsenic (TRC)		O	05/24/11-08/21/19	74	12	<0.001	0.001	<0.003	0.001	0.00	LOWEST
SW-1	08/21/19	<0.000	Lead (TRC)		O	05/24/11-08/21/19	74	14	<0.0003	0.0004	0.0015	0.0002	0.50	LOWEST
SW-1	08/21/19	0.0003	Uranium (TRC)		O	05/24/11-08/21/19	74	15	0.0002	0.0061	<0.008	0.0033	1.76	
SW-1	08/21/19	<0.009	Aluminum (DIS)		O	05/24/11-08/21/19	74	27	<0.009	0.041	0.333	0.073	0.44	LOWEST
SW-1	08/21/19	<0.01	Cobalt (TRC)		O	05/24/11-08/21/19	74	0	<0.005	0.01	<0.01	0		HIGHEST
SW-1	08/21/19	42	Calcium		O	05/24/11-08/21/19	74	74	23	43	55	8	0.12	
SW-1	08/21/19	0.108	Barium (TRC)		O	05/24/11-08/21/19	74	74	0.081	0.104	0.127	0.01	0.40	
SW-1	08/21/19	0.13	Iron (TRC)		O	05/24/11-08/21/19	74	74	0.11	0.3	1.86	0.3	0.57	
SW-1	08/21/19	11	Magnesium		O	05/24/11-08/21/19	74	74	6	11	15	2	0.00	
SW-1	08/21/19	0.014	Manganese (TRC)		O	05/24/11-08/21/19	74	74	0.009	0.018	0.053 J	0.008	0.50	
SW-1	08/21/19	0.009	Phosphorus		O	05/16/14-08/21/19	60	55	<0.003	0.015	0.09	0.013	0.46	
SW-1	08/21/19	1	Potassium		O	05/24/11-08/21/19	74	70	1	1	3	0		LOWEST
SW-1	08/21/19	2	Sodium		O	05/24/11-08/21/19	74	74	1	2	3	0		

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SW-1	08/21/19	0.123	Strontium (TRC)		O	05/24/11-08/21/19	74	71	0.0779	0.117	0.147	0.015	0.40	
SW-1	08/21/19	1	Chloride		O	05/24/11-08/21/19	74	73	1	1	5	1	0.00	LOWEST
SW-1	08/21/19	33.11	Flow	Cubi	O	05/24/11-08/21/19	57	57	NF-ICE	64.8	613 E	96.02	0.33	
SW-1	08/21/19	<0.1	Fluoride		O	05/24/11-08/21/19	74	23	<0.1	0.1	0.2	0		LOWEST
SW-1	08/21/19	<0.01	N+N		O	05/24/11-08/21/19	74	34	<0.01	0.04	0.15	0.04	0.75	LOWEST
SW-1	08/21/19	8.46	Field pH	s.u.	O	05/24/11-08/21/19	76	76	5.3	7.88	8.71	0.67	0.87	
SW-1	08/21/19	304	Field SC	umh	O	05/24/11-08/21/19	77	77	176	291	363	53	0.25	
SW-1	08/21/19	178 D	TDS		O	05/24/11-08/21/19	74	74	107	171	227	26	0.27	
SW-1	08/21/19	160	Alkalinity		O	05/24/11-08/21/19	74	74	87	156	200	28	0.14	
SW-1	08/21/19	150	Hardness		O	05/24/11-08/21/19	74	73	<7	152	199	34	0.06	
SW-1	08/21/19	5	TSS		O	05/30/12-08/21/19	70	28	<4	9	43	7	0.57	
SW-1	08/21/19	11.8	Water Temp	Deg	O	05/24/11-08/21/19	77	77	-0.97	4.8	14.5	4.8	1.46	
SW-1	08/21/19	9.6	DO		O	05/24/11-08/21/19	77	77	3.91	11.1	15	2	0.75	
SW-1	08/21/19	6	Sulfate		O	05/24/11-08/21/19	74	74	2	5	18 J	2	0.50	
SW-1	08/21/19	0.1	Total N Pers		O	04/29/15-08/21/19	48	44	<0.003	0.2	1.12 J	0.2	0.50	
SW-1	08/21/19	1.01	Staff Gauge	Feet	O	05/24/11-08/21/19	48	48	0.49	1.41	13.3	1.81	0.22	
SW-14	08/21/19	<0.000	Antimony (TRC)		O	04/13/16-08/21/19	35	0	<0.0005	0.0005	<0.0005	0		HIGHEST
SW-14	08/21/19	<0.000	Beryllium (TRC)		O	04/13/16-08/21/19	35	0	<0.0008	0.0008	<0.0008	0		HIGHEST
SW-14	08/21/19	<0.000	Cadmium (TRC)		O	04/13/16-08/21/19	35	2	<0.00003	0.00003	<0.00003	0		HIGHEST
SW-14	08/21/19	<0.01	Chromium (TRC)		O	04/13/16-08/21/19	35	0	<0.01	0.01	<0.01	0		HIGHEST
SW-14	08/21/19	<0.002	Copper (TRC)		O	04/13/16-08/21/19	35	0	<0.002	0.002	<0.002	0		HIGHEST
SW-14	08/21/19	<0.005	Mercury (TRC)	ug/L	O	04/13/16-08/21/19	35	1	<0.000005	0.001	<0.005	0.002	2.00	HIGHEST
SW-14	08/21/19	<0.002	Molybdenum (TRC)		O	04/13/16-08/21/19	35	0	<0.002	0.002	<0.002	0		HIGHEST
SW-14	08/21/19	<0.001	Nickel (TRC)		O	04/13/16-08/21/19	35	1	<0.001	0.001	0.002	0		LOWEST
SW-14	08/21/19	<0.000	Selenium (TRC)		O	04/13/16-08/21/19	35	1	<0.0002	0.0002	<0.0004	0		LOWEST
SW-14	08/21/19	<0.000	Silver (TRC)		O	04/13/16-08/21/19	35	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SW-14	08/21/19	<0.000	Thallium (TRC)		O	04/13/16-08/21/19	35	0	<0.002	0.0002	<0.0002	0		HIGHEST
SW-14	08/21/19	<0.002	Zinc (TRC)		O	04/13/16-08/21/19	35	5	<0.002	0.003	<0.04	0.006	0.17	LOWEST
SW-14	08/21/19	<0.001	Arsenic (TRC)		O	04/13/16-08/21/19	35	0	<0.001	0.001	<0.001	0		HIGHEST
SW-14	08/21/19	<0.000	Lead (TRC)		O	04/13/16-08/21/19	35	1	<0.0003	0.0003	0.0005	0		LOWEST
SW-14	08/21/19	0.0005	Uranium (TRC)		O	04/13/16-08/21/19	35	7	0.0004	0.0065	<0.008	0.003	2.00	

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Data Comparison Summary

Report Date: September 23, 2019

Quarterly Monitoring

STATION	SAMPLE DATE	RESULT mg/L	PARAMETER		QC Code	COMPARISON PERIOD	N	# OF DET	MIN mg/L	MEAN: mg/L	MAX mg/L	STDDARD DEVIATION	STD DEVS FROM MEAN	RELATION TO DATABASE PERIOD
SW-14	08/21/19	<0.009	Aluminum (DIS)		O	04/13/16-08/21/19	35	3	<0.009	0.011	0.047	0.007	0.29	LOWEST
SW-14	08/21/19	<0.01	Cobalt (TRC)		O	04/13/16-08/21/19	35	0	<0.01	0.01	<0.01	0		HIGHEST
SW-14	08/21/19	51	Calcium		O	04/13/16-08/21/19	35	35	38	54	61	5	0.60	
SW-14	08/21/19	0.12	Barium (TRC)		O	04/13/16-08/21/19	35	35	0.081	0.11	0.13	0.01	1.00	
SW-14	08/21/19	0.06	Iron (TRC)		O	04/13/16-08/21/19	35	32	0.02	0.08	0.43	0.08	0.25	
SW-14	08/21/19	18	Magnesium		O	04/13/16-08/21/19	35	35	12	19	23	2	0.50	
SW-14	08/21/19	0.008	Manganese (TRC)		O	04/13/16-08/21/19	35	9	<0.005	0.005	0.009	0.001	3.00	
SW-14	08/21/19	0.009	Phosphorus		O	04/13/16-08/21/19	35	29	<0.003	0.013	0.180	0.03	0.13	
SW-14	08/21/19	1	Potassium		O	04/13/16-08/21/19	35	34	1	1	2	0		LOWEST
SW-14	08/21/19	3	Sodium		O	04/13/16-08/21/19	35	35	2	3	3	1	0.00	HIGHEST
SW-14	08/21/19	0.122	Strontium (TRC)		O	04/13/16-08/21/19	35	35	0.0807	0.121	0.136	0.012	0.08	
SW-14	08/21/19	2	Chloride		O	04/13/16-08/21/19	35	35	1	2	4	1	0.00	
SW-14	08/21/19	1.33	Flow	Cubi	O	04/13/16-08/21/19	29	29	NF-ICE	2.37	11.75	2.97	0.35	
SW-14	08/21/19	0.2	Fluoride		O	04/13/16-08/21/19	35	35	0.1	0.2	0.2	0		HIGHEST
SW-14	08/21/19	0.02	N+N		O	04/13/16-08/21/19	35	33	0.01	0.1	0.27	0.08	1.00	
SW-14	08/21/19	8.08	Field pH	s.u.	O	04/13/16-08/21/19	33	33	6.07	7.93	8.48	0.47	0.32	
SW-14	08/21/19	399	Field SC	umh	O	04/13/16-08/21/19	34	34	263	384	439	42	0.36	
SW-14	08/21/19	229 D	TDS		O	04/13/16-08/21/19	35	35	175	225	266 D	16	0.25	
SW-14	08/21/19	220	Alkalinity		O	04/13/16-08/21/19	35	35	160	206	220	18	0.78	HIGHEST
SW-14	08/21/19	202	Hardness		O	04/13/16-08/21/19	35	35	153	212	239	18	0.56	
SW-14	08/21/19	<4	TSS		O	04/13/16-08/21/19	35	5	4	5	15	2	0.50	LOWEST
SW-14	08/21/19	14	Water Temp	Deg	O	04/13/16-08/21/19	34	34	-0.91	7	14.7	5	1.40	
SW-14	08/21/19	8.94	DO		O	04/13/16-08/21/19	34	34	8.22	10.73	15.01	1.64	1.09	
SW-14	08/21/19	7	Sulfate		O	04/13/16-08/21/19	35	35	6	9	19	3	0.67	
SW-14	08/21/19	0.12	Total N Pers		O	04/13/16-08/21/19	32	31	<0.003	0.23	1.25 J	0.21	0.52	
SW-14	08/21/19	0.47	Staff Gauge	Feet	O	04/13/16-08/21/19	21	21	0.3	0.5	0.8	0.14	0.21	
SW-17	08/21/19	<0.000	Antimony (TRC)		O	01/17/18-08/21/19	17	0	<0.0005	0.0005	<0.0005	0		HIGHEST
SW-17	08/21/19	<0.000	Beryllium (TRC)		O	01/17/18-08/21/19	17	0	<0.0008	0.0008	<0.0008	0		HIGHEST
SW-17	08/21/19	<0.000	Cadmium (TRC)		O	01/17/18-08/21/19	17	1	<0.00003	0.00004	0.00017	0.00003	0.33	LOWEST
SW-17	08/21/19	<0.01	Chromium (TRC)		O	01/17/18-08/21/19	17	0	<0.01	0.01	<0.01	0		HIGHEST
SW-17	08/21/19	<0.002	Copper (TRC)		O	01/17/18-08/21/19	17	0	<0.002	0.002	<0.002	0		HIGHEST

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Data Comparison Summary

Report Date: September 23, 2019

Quarterly Monitoring

STATION	SAMPLE DATE	RESULT ug/L	PARAMETER		QC Code	COMPARISON PERIOD	N	# OF DET	MIN ug/L	MEAN: ug/L	MAX ug/L	STDDARD DEVIATION	STD DEVS FROM MEAN	RELATION TO DATABASE PERIOD
SW-17	08/21/19	<0.005	Mercury (TRC)	ug/L	O	01/17/18-08/21/19	17	3	<0.000005	0.002	0.007	0.003	1.00	
SW-17	08/21/19	<0.002	Molybdenum (TRC)		O	01/17/18-08/21/19	17	0	<0.002	0.002	<0.002	0		HIGHEST
SW-17	08/21/19	<0.001	Nickel (TRC)		O	01/17/18-08/21/19	17	0	<0.001	0.001	<0.002	0		LOWEST
SW-17	08/21/19	<0.000	Selenium (TRC)		O	01/17/18-08/21/19	17	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SW-17	08/21/19	<0.000	Silver (TRC)		O	01/17/18-08/21/19	17	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SW-17	08/21/19	<0.000	Thallium (TRC)		O	01/17/18-08/21/19	17	3	0.000	0.0002	<0.0002	0		HIGHEST
SW-17	08/21/19	<0.002	Zinc (TRC)		O	01/17/18-08/21/19	17	9	<0.002	0.003	0.008	0.002	0.50	LOWEST
SW-17	08/21/19	<0.001	Arsenic (TRC)		O	01/17/18-08/21/19	17	0	<0.001	0.001	<0.001	0		HIGHEST
SW-17	08/21/19	<0.000	Lead (TRC)		O	01/17/18-08/21/19	17	1	<0.0003	0.0003	<0.0003	0		HIGHEST
SW-17	08/21/19	0.0006	Uranium (TRC)		O	01/17/18-08/21/19	17	6	0.0005	0.0054	<0.008	0.0036	1.33	
SW-17	08/21/19	<0.009	Aluminum (DIS)		O	01/17/18-08/21/19	17	2	<0.009	0.01	0.021 J	0.003	0.33	LOWEST
SW-17	08/21/19	<0.01	Cobalt (TRC)		O	01/17/18-08/21/19	17	0	<0.01	0.01	<0.01	0		HIGHEST
SW-17	08/21/19	50	Calcium		O	01/17/18-08/21/19	17	17	44	55	63	5	1.00	
SW-17	08/21/19	0.159	Barium (TRC)		O	01/17/18-08/21/19	17	17	0.108	0.149	0.168	0.015	0.67	
SW-17	08/21/19	0.21	Iron (TRC)		O	01/17/18-08/21/19	17	17	0.07	0.18	0.37	0.1	0.30	
SW-17	08/21/19	23	Magnesium		O	01/17/18-08/21/19	17	17	14	23	25	3	0.00	
SW-17	08/21/19	0.024	Manganese (TRC)		O	01/17/18-08/21/19	17	17	0.008	0.024	0.051	0.012	0.00	
SW-17	08/21/19	0.01	Phosphorus		O	01/17/18-08/21/19	17	17	0.004	0.02	0.088 J	0.02	0.50	
SW-17	08/21/19	1	Potassium		O	01/17/18-08/21/19	17	14	1	1	1	0		HIGHEST
SW-17	08/21/19	3	Sodium		O	01/17/18-08/21/19	17	17	2	2	3	1	1.00	HIGHEST
SW-17	08/21/19	0.138	Strontium (TRC)		O	01/17/18-08/21/19	17	17	0.111 L	0.146	0.172 L	0.017	0.47	
SW-17	08/21/19	5	Chloride		O	01/17/18-08/21/19	17	17	3	5	14	3	0.00	
SW-17	08/21/19	0.25	Flow	Cubi	O	01/17/18-08/21/19	12	12	NF-ICE	0.45	1.8	0.57	0.35	
SW-17	08/21/19	0.2	Fluoride		O	01/17/18-08/21/19	17	17	0.1	0.2	0.2	0		HIGHEST
SW-17	08/21/19	0.11	N+N		O	01/17/18-08/21/19	17	16	<0.01	0.09	0.19	0.06	0.33	
SW-17	08/21/19	8.2	Field pH	s.u.	O	01/17/18-08/21/19	16	16	7.47	8.1	8.41	0.2	0.50	
SW-17	08/21/19	431	Field SC	umh	O	01/17/18-08/21/19	16	16	319	430	487	41	0.02	
SW-17	08/21/19	256 D	TDS		O	01/17/18-08/21/19	17	17	197 D	255	314 D	30	0.03	
SW-17	08/21/19	210	Alkalinity		O	01/17/18-08/21/19	17	17	150	203	230	18	0.39	
SW-17	08/21/19	219	Hardness		O	01/17/18-08/21/19	17	17	167	232	262	23	0.57	
SW-17	08/21/19	5	TSS		O	01/17/18-08/21/19	17	8	4	6	19 J	5	0.20	

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Quarterly Monitoring

STATION	SAMPLE DATE	RESULT Deg C	PARAMETER		QC Code	COMPARISON PERIOD	N	# OF DET	MIN Deg C	MEAN: Deg C	MAX Deg C	STDDARD DEVIATION	STD DEVS FROM MEAN	RELATION TO DATABASE PERIOD
SW-17	08/21/19	9.9	Water Temp	Deg	O	01/17/18-08/21/19	16	16	0.02	6.5	13.9	5.1	0.67	
SW-17	08/21/19	9.7	DO		O	01/17/18-08/21/19	16	16	8.46	10.3	12.9	1.1	0.55	
SW-17	08/21/19	25	Sulfate		O	01/17/18-08/21/19	17	17	12	28	44	8	0.38	
SW-17	08/21/19	0.23	Total N Pers		O	04/12/18-08/21/19	14	14	0.12	0.25	0.49	0.1	0.20	
SW-2	08/21/19	<0.000	Antimony (TRC)		O	05/24/11-08/21/19	74	0	<0.0005	0.0008	<0.005	0.0008	0.37	LOWEST
SW-2	08/21/19	<0.000	Beryllium (TRC)		O	05/24/11-08/21/19	74	0	<0.0008	0.0008	<0.001	0.0001	0.00	LOWEST
SW-2	08/21/19	<0.000	Cadmium (TRC)		O	05/24/11-08/21/19	74	3	<0.00003	0.00003	<0.00008	0.00001	0.00	LOWEST
SW-2	08/21/19	<0.01	Chromium (TRC)		O	05/24/11-08/21/19	74	1	<0.001	0.01	<0.01	0		HIGHEST
SW-2	08/21/19	<0.002	Copper (TRC)		O	05/24/11-08/21/19	74	5	<0.001	0.002	0.004	0		
SW-2	08/21/19	<0.005	Mercury (TRC)	ug/L	O	05/24/11-08/21/19	74	12	<0.000005	0.001	0.01	0.002	2.00	
SW-2	08/21/19	<0.002	Molybdenum (TRC)		O	05/24/11-08/21/19	74	0	<0.001	0.002	<0.005	0.001	0.00	
SW-2	08/21/19	<0.001	Nickel (TRC)		O	05/24/11-08/21/19	74	12	<0.001	0.002	<0.01	0.002	0.50	LOWEST
SW-2	08/21/19	<0.000	Selenium (TRC)		O	05/24/11-08/21/19	74	0	<0.0002	0.0003	<0.001	0.0002	0.50	LOWEST
SW-2	08/21/19	<0.000	Silver (TRC)		O	05/24/11-08/21/19	74	0	<0.0002	0.0002	<0.0005	0.0001	0.00	LOWEST
SW-2	08/21/19	<0.000	Thallium (TRC)		O	05/24/11-08/21/19	74	0	<0.002	0.0002	<0.0002	0		HIGHEST
SW-2	08/21/19	<0.002	Zinc (TRC)		O	05/24/11-08/21/19	74	22	<0.002	0.004	0.014	0.003	0.67	LOWEST
SW-2	08/21/19	<0.001	Arsenic (TRC)		O	05/24/11-08/21/19	74	1	<0.001	0.001	<0.003	0.001	0.00	LOWEST
SW-2	08/21/19	<0.000	Lead (TRC)		O	05/24/11-08/21/19	74	14	<0.0003	0.0004	0.0017	0.0002	0.50	LOWEST
SW-2	08/21/19	0.0003	Uranium (TRC)		O	05/24/11-08/21/19	74	13	0.0002	0.0061	<0.008	0.0033	1.76	
SW-2	08/21/19	<0.009	Aluminum (DIS)		O	05/24/11-08/21/19	74	32	<0.009	0.041	0.39	0.071	0.45	LOWEST
SW-2	08/21/19	<0.01	Cobalt (TRC)		O	05/24/11-08/21/19	74	0	<0.005	0.01	<0.01	0		HIGHEST
SW-2	08/21/19	43	Calcium		O	05/24/11-08/21/19	74	74	21	43	58	8	0.00	
SW-2	08/21/19	0.102	Barium (TRC)		O	05/24/11-08/21/19	74	74	0.07	0.094	0.128	0.012	0.67	
SW-2	08/21/19	0.11	Iron (TRC)		O	05/24/11-08/21/19	74	74	0.09	0.29	2.49	0.36	0.50	
SW-2	08/21/19	11	Magnesium		O	05/24/11-08/21/19	74	74	5	11	15	2	0.00	
SW-2	08/21/19	0.008	Manganese (TRC)		O	05/24/11-08/21/19	74	74	0.006	0.013	0.116	0.014	0.36	
SW-2	08/21/19	0.006	Phosphorus		O	05/16/14-08/21/19	60	51	0.003	0.015	0.182 J	0.025	0.36	
SW-2	08/21/19	1	Potassium		O	05/24/11-08/21/19	74	68	1	1	2	0		LOWEST
SW-2	08/21/19	2	Sodium		O	05/24/11-08/21/19	74	74	1	2	3	0		
SW-2	08/21/19	0.124	Strontium (TRC)		O	05/24/11-08/21/19	74	72	0.0818	0.12	0.15	0.015	0.27	
SW-2	08/21/19	1	Chloride		O	05/24/11-08/21/19	74	72	1	1	5	1	0.00	LOWEST

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		ubic Ft Se							Cubic Ft Sec	Cubic Ft Sec	ubic Ft Sec			
SW-2	08/21/19	30.89	Flow	Cubi	O	05/24/11-08/21/19	49	49	NF-ICE	43.16	250 E	50.16	0.24	
SW-2	08/21/19	<0.1	Fluoride		O	05/24/11-08/21/19	74	1	<0.1	0.1	0.4	0		LOWEST
SW-2	08/21/19	<0.01	N+N		O	05/24/11-08/21/19	74	34	<0.01	0.04	0.12	0.04	0.75	LOWEST
SW-2	08/21/19	8.5	Field pH	s.u.	O	05/24/11-08/21/19	75	75	NM	7.8	8.73	1.1	0.64	
SW-2	08/21/19	299	Field SC	umh	O	05/24/11-08/21/19	76	76	156	283	388	54	0.30	
SW-2	08/21/19	173 D	TDS		O	05/24/11-08/21/19	74	74	112	167	223	25	0.24	
SW-2	08/21/19	160	Alkalinity		O	05/24/11-08/21/19	74	74	80	153	200	28	0.25	
SW-2	08/21/19	152	Hardness		O	05/24/11-08/21/19	74	73	<7	151	202	34	0.03	
SW-2	08/21/19	<4	TSS		O	05/30/12-08/21/19	70	20	<4	10	105	13	0.46	LOWEST
SW-2	08/21/19	12.7	Water Temp	Deg	O	05/24/11-08/21/19	76	76	-1	4.6	15.8	5	1.62	
SW-2	08/21/19	9.6	DO		O	05/24/11-08/21/19	76	76	6.35	11.2	16.18	1.7	0.94	
SW-2	08/21/19	5	Sulfate		O	05/24/11-08/21/19	74	74	2	5	9	2	0.00	
SW-2	08/21/19	0.08	Total N Pers		O	04/29/15-08/21/19	48	42	<0.003	0.17	1.39 J	0.26	0.35	
SW-2	08/21/19	0.55	Staff Gauge	Feet	O	05/24/11-08/21/19	43	43	0.21	0.78	1.75	0.45	0.51	
SW-3	08/20/19	<0.000	Antimony (TRC)		O	05/24/11-08/20/19	32	0	<0.0005	0.001	<0.005	0.0012	0.42	LOWEST
SW-3	08/20/19	<0.000	Beryllium (TRC)		O	05/24/11-08/20/19	32	0	<0.0008	0.0008	<0.001	0.0001	0.00	LOWEST
SW-3	08/20/19	<0.000	Cadmium (TRC)		O	05/24/11-08/20/19	32	0	<0.00003	0.00004	<0.00008	0.00002	0.50	LOWEST
SW-3	08/20/19	<0.01	Chromium (TRC)		O	05/24/11-08/20/19	32	0	<0.001	0.01	<0.01	0		HIGHEST
SW-3	08/20/19	<0.002	Copper (TRC)		O	05/24/11-08/20/19	32	4	0.001	0.002	0.003	0		
SW-3	08/20/19	<0.005	Mercury (TRC)	ug/L	O	05/24/11-08/20/19	32	2	<0.000005	0.001	<0.005	0.002	2.00	HIGHEST
SW-3	08/20/19	<0.002	Molybdenum (TRC)		O	05/24/11-08/20/19	32	0	<0.001	0.003	<0.005	0.001	1.00	
SW-3	08/20/19	<0.001	Nickel (TRC)		O	05/24/11-08/20/19	32	0	<0.001	0.002	<0.01	0.003	0.33	LOWEST
SW-3	08/20/19	<0.000	Selenium (TRC)		O	05/24/11-08/20/19	32	3	<0.0002	0.0004	<0.001	0.0003	0.67	LOWEST
SW-3	08/20/19	<0.000	Silver (TRC)		O	05/24/11-08/20/19	32	0	<0.0002	0.0003	<0.0005	0.0001	1.00	LOWEST
SW-3	08/20/19	<0.000	Thallium (TRC)		O	05/24/11-08/20/19	32	3	<0.0002	0.0002	0.0004	0		LOWEST
SW-3	08/20/19	<0.002	Zinc (TRC)		O	05/24/11-08/20/19	32	18	<0.002	0.005	0.033 J	0.006	0.50	LOWEST
SW-3	08/20/19	<0.001	Arsenic (TRC)		O	05/24/11-08/20/19	32	0	<0.001	0.001	<0.003	0.001	0.00	LOWEST
SW-3	08/20/19	<0.000	Lead (TRC)		O	05/24/11-08/20/19	32	15	<0.0003	0.0006	0.0031	0.0007	0.43	LOWEST
SW-3	08/20/19	0.0006	Uranium (TRC)		O	05/24/11-08/20/19	32	12	0.0005	0.0052	<0.008	0.0036	1.28	
SW-3	08/20/19	<0.009	Aluminum (DIS)		O	05/24/11-08/20/19	32	5	<0.009	0.014	0.07	0.012	0.42	LOWEST
SW-3	08/20/19	<0.01	Cobalt (TRC)		O	05/24/11-08/20/19	32	0	<0.005	0.01	<0.01	0		HIGHEST

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SW-3	08/20/19	47	Calcium		O	05/24/11-08/20/19	32	32	31	46	52	4	0.25	
SW-3	08/20/19	0.172	Barium (TRC)		O	05/24/11-08/20/19	32	32	0.122	0.15	0.176	0.014	1.57	
SW-3	08/20/19	0.05	Iron (TRC)		O	05/24/11-08/20/19	32	32	0.03 B	0.21	1.08	0.23	0.70	
SW-3	08/20/19	24	Magnesium		O	05/24/11-08/20/19	32	32	15	23	25	2	0.50	
SW-3	08/20/19	<0.005	Manganese (TRC)		O	05/24/11-08/20/19	32	11	<0.005	0.014	0.2	0.035	0.26	LOWEST
SW-3	08/20/19	0.018	Phosphorus		O	06/10/14-08/20/19	23	22	0.004	0.013	0.035	0.006	0.83	
SW-3	08/20/19	1	Potassium		O	05/24/11-08/20/19	32	25	1	1	2	0		LOWEST
SW-3	08/20/19	2	Sodium		O	05/24/11-08/20/19	32	32	2	2	2	0		HIGHEST
SW-3	08/20/19	0.123	Strontium (TRC)		O	05/24/11-08/20/19	32	29	0.0838	0.108	0.123 D	0.011	1.36	HIGHEST
SW-3	08/20/19	4	Chloride		O	05/24/11-08/20/19	32	30	<1	2	4	1	2.00	HIGHEST
SW-3	08/20/19	0.056	Flow	Cubi	O	05/24/11-08/20/19	29	29	0.034	0.353	4.9	0.888	0.33	
SW-3	08/20/19	0.2	Fluoride		O	05/24/11-08/20/19	32	32	0.1	0.2	0.2	0		HIGHEST
SW-3	08/20/19	0.08	N+N		O	05/24/11-08/20/19	32	26	0.01	0.05	0.12	0.03	1.00	
SW-3	08/20/19	8.41	Field pH	s.u.	O	05/24/11-08/20/19	33	33	7.92	8.29	8.7	0.16	0.75	
SW-3	08/20/19	407	Field SC	umh	O	05/24/11-08/20/19	33	33	269	379	423	37	0.76	
SW-3	08/20/19	244 D	TDS		O	05/24/11-08/20/19	32	32	152	220	255 D	20	1.20	
SW-3	08/20/19	210	Alkalinity		O	05/24/11-08/20/19	32	32	150	197	210	14	0.93	HIGHEST
SW-3	08/20/19	216	Hardness		O	05/24/11-08/20/19	32	32	139	208	234	19	0.42	
SW-3	08/20/19	4	TSS		O	05/30/12-08/20/19	29	13	<4	7	14	3	1.00	LOWEST
SW-3	08/20/19	13.8	Water Temp	Deg	O	05/24/11-08/20/19	33	33	NM	8	14.5	4.8	1.21	
SW-3	08/20/19	8.33	DO		O	05/24/11-08/20/19	33	33	5.95	9.96	12.87	1.45	1.12	
SW-3	08/20/19	21	Sulfate		O	05/24/11-08/20/19	32	32	5	17	26	5	0.80	
SW-3	08/20/19	0.17	Total N Pers		O	06/24/15-08/20/19	20	19	<0.04	0.16	0.6	0.11	0.09	
SW-4	08/20/19	<0.000	Antimony (TRC)		O	07/24/19-08/20/19	2	0	<0.0005	0.0005	<0.0005	0		HIGHEST
SW-4	08/20/19	<0.000	Beryllium (TRC)		O	07/24/19-08/20/19	2	0	<0.0008	0.0008	<0.0008	0		HIGHEST
SW-4	08/20/19	<0.000	Cadmium (TRC)		O	07/24/19-08/20/19	2	0	<0.00003	0.00003	<0.00003	0		HIGHEST
SW-4	08/20/19	<0.01	Chromium (TRC)		O	07/24/19-08/20/19	2	0	<0.01	0.01	<0.01	0		HIGHEST
SW-4	08/20/19	<0.002	Copper (TRC)		O	07/24/19-08/20/19	2	0	<0.002	0.002	<0.002	0		HIGHEST
SW-4	08/20/19	<0.005	Mercury (TRC)	ug/L	O	07/24/19-08/20/19	2	0	<0.005	0.005	<0.005	0		HIGHEST
SW-4	08/20/19	<0.002	Molybdenum (TRC)		O	07/24/19-08/20/19	2	0	<0.002	0.002	<0.002	0		HIGHEST
SW-4	08/20/19	<0.001	Nickel (TRC)		O	07/24/19-08/20/19	2	0	<0.001	0.001	<0.001	0		HIGHEST

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SW-4	08/20/19	<0.000	Selenium (TRC)		O	07/24/19-08/20/19	2	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SW-4	08/20/19	<0.000	Silver (TRC)		O	07/24/19-08/20/19	2	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SW-4	08/20/19	<0.000	Thallium (TRC)		O	07/24/19-08/20/19	2	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SW-4	08/20/19	<0.002	Zinc (TRC)		O	07/24/19-08/20/19	2	0	<0.002	0.011	<0.02	0.013	0.69	LOWEST
SW-4	08/20/19	<0.001	Arsenic (TRC)		O	07/24/19-08/20/19	2	0	<0.001	0.001	<0.001	0		HIGHEST
SW-4	08/20/19	<0.000	Lead (TRC)		O	07/24/19-08/20/19	2	0	<0.0003	0.0003	<0.0003	0		HIGHEST
SW-4	08/20/19	0.0008	Uranium (TRC)		O	07/24/19-08/20/19	2	2	0.0007	0.0007	0.0008	0.0001	1.00	HIGHEST
SW-4	08/20/19	<0.009	Aluminum (DIS)		O	07/24/19-08/20/19	2	0	<0.009	0.009	<0.009	0		HIGHEST
SW-4	08/20/19	<0.01	Cobalt (TRC)		O	07/24/19-08/20/19	2	0	<0.01	0.01	<0.01	0		HIGHEST
SW-4	08/20/19	49	Calcium		O	07/24/19-08/20/19	2	2	47	48	49	1	1.00	HIGHEST
SW-4	08/20/19	0.15	Barium (TRC)		O	07/24/19-08/20/19	2	2	0.148	0.15	0.15	0		HIGHEST
SW-4	08/20/19	0.19	Iron (TRC)		O	07/24/19-08/20/19	2	2	0.19	0.29	0.39	0.14	0.71	LOWEST
SW-4	08/20/19	20	Magnesium		O	07/24/19-08/20/19	2	2	19	20	20	1	0.00	HIGHEST
SW-4	08/20/19	0.012	Manganese (TRC)		O	07/24/19-08/20/19	2	2	0.012	0.02	0.027	0.011	0.73	LOWEST
SW-4	08/20/19	0.011	Phosphorus		O	07/24/19-08/20/19	2	2	0.011	0.028	0.045	0.024	0.71	LOWEST
SW-4	08/20/19	1	Potassium		O	07/24/19-08/20/19	2	2	1	1	1	0		HIGHEST
SW-4	08/20/19	3	Sodium		O	07/24/19-08/20/19	2	2	3	3	3	0		HIGHEST
SW-4	08/20/19	0.183	Strontium (TRC)		O	07/24/19-08/20/19	2	2	0.183	0.185	0.186 L	0.002	1.00	LOWEST
SW-4	08/20/19	<1	Chloride		O	07/24/19-08/20/19	2	0	<1	1	<1	0		HIGHEST
SW-4	08/20/19	0.008	Flow	Cubi	O	05/30/14-08/20/19	3	3	0.008	0.113	0.32	0.179	0.59	LOWEST
SW-4	08/20/19	0.1	Fluoride		O	07/24/19-08/20/19	2	2	0.1	0.1	0.1	0		HIGHEST
SW-4	08/20/19	0.09	N+N		O	07/24/19-08/20/19	2	2	0.08	0.09	0.09	0.01	0.00	HIGHEST
SW-4	08/20/19	8.17	Field pH	s.u.	O	05/30/14-08/20/19	3	3	7.82	8	8.17	0.18	0.94	HIGHEST
SW-4	08/20/19	366	Field SC	umh	O	05/30/14-08/20/19	3	3	361.6	365	367	3	0.33	
SW-4	08/20/19	207 D	TDS		O	07/24/19-08/20/19	2	2	207 D	209	211 D	3	0.67	LOWEST
SW-4	08/20/19	200	Alkalinity		O	07/24/19-08/20/19	2	2	190	195	200	7	0.71	HIGHEST
SW-4	08/20/19	206	Hardness		O	07/24/19-08/20/19	2	2	197	202	206	6	0.67	HIGHEST
SW-4	08/20/19	5	TSS		O	07/24/19-08/20/19	2	2	5	6	8 J	2	0.50	LOWEST
SW-4	08/20/19	13.7	Water Temp	Deg	O	05/30/14-08/20/19	3	3	8.9	12.2	14.1	2.9	0.52	
SW-4	08/20/19	7.89	DO		O	05/30/14-08/20/19	3	3	7.2	7.93	8.69	0.75	0.05	
SW-4	08/20/19	10	Sulfate		O	07/24/19-08/20/19	2	2	9	10	10	1	0.00	HIGHEST

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SW-4	08/20/19	0.2	Total N Pers		O	07/24/19-08/20/19	2	2	0.2	0.2	0.22	0		LOWEST
USGS-SC1	08/21/19	<0.000	Antimony (TRC)		O	03/24/14-08/21/19	62	0	<0.0005	0.0005	<0.0005	0		HIGHEST
USGS-SC1	08/21/19	<0.000	Beryllium (TRC)		O	03/24/14-08/21/19	62	0	<0.0008	0.0008	<0.0008	0		HIGHEST
USGS-SC1	08/21/19	<0.000	Cadmium (TRC)		O	03/24/14-08/21/19	62	2	<0.00003	0.00003	0.00009	0.00001	0.00	LOWEST
USGS-SC1	08/21/19	<0.01	Chromium (TRC)		O	03/24/14-08/21/19	62	0	<0.005	0.01	<0.01	0		HIGHEST
USGS-SC1	08/21/19	<0.002	Copper (TRC)		O	03/24/14-08/21/19	62	1	<0.002	0.002	<0.002	0		HIGHEST
USGS-SC1	08/21/19	<0.005	Mercury (TRC)	ug/L	O	03/24/14-08/21/19	62	3	<0.000005	0.001	0.01 D	0.002	2.00	
USGS-SC1	08/21/19	<0.002	Molybdenum (TRC)		O	03/24/14-08/21/19	62	0	<0.001	0.002	<0.002	0		HIGHEST
USGS-SC1	08/21/19	<0.001	Nickel (TRC)		O	03/24/14-08/21/19	62	8	<0.001	0.001	0.003	0		LOWEST
USGS-SC1	08/21/19	<0.000	Selenium (TRC)		O	03/24/14-08/21/19	62	0	<0.0002	0.0002	<0.0004	0		LOWEST
USGS-SC1	08/21/19	<0.000	Silver (TRC)		O	03/24/14-08/21/19	62	1	<0.0002	0.0002	<0.0004	0		LOWEST
USGS-SC1	08/21/19	<0.000	Thallium (TRC)		O	03/24/14-08/21/19	62	0	<0.002	0.0002	<0.0002	0		HIGHEST
USGS-SC1	08/21/19	<0.002	Zinc (TRC)		O	03/24/14-08/21/19	62	19	<0.002	0.003	0.009	0.002	0.50	LOWEST
USGS-SC1	08/21/19	<0.001	Arsenic (TRC)		O	03/24/14-08/21/19	62	1	<0.001	0.001	<0.001	0		HIGHEST
USGS-SC1	08/21/19	<0.000	Lead (TRC)		O	03/24/14-08/21/19	62	8	<0.0003	0.0003	0.0011	0.0001	0.00	LOWEST
USGS-SC1	08/21/19	0.0004	Uranium (TRC)		O	03/24/14-08/21/19	62	9	0.0003	0.0069	<0.008	0.0027	2.41	
USGS-SC1	08/21/19	<0.009	Aluminum (DIS)		O	03/24/14-08/21/19	62	18	<0.009	0.018	0.189	0.029	0.31	LOWEST
USGS-SC1	08/21/19	<0.01	Cobalt (TRC)		O	03/24/14-08/21/19	62	0	<0.005	0.01	<0.01	0		HIGHEST
USGS-SC1	08/21/19	51	Calcium		O	03/24/14-08/21/19	62	62	35	51	61	6	0.00	
USGS-SC1	08/21/19	0.076	Barium (TRC)		O	03/24/14-08/21/19	62	62	0.06	0.069	0.088	0.006	1.17	
USGS-SC1	08/21/19	0.08	Iron (TRC)		O	03/24/14-08/21/19	62	62	0.07	0.25	1.71	0.3	0.57	
USGS-SC1	08/21/19	13	Magnesium		O	03/24/14-08/21/19	62	62	8	13	15	2	0.00	
USGS-SC1	08/21/19	0.007	Manganese (TRC)		O	03/24/14-08/21/19	62	62	0.005	0.011	0.079	0.01	0.40	
USGS-SC1	08/21/19	0.003	Phosphorus		O	05/16/14-08/21/19	59	43	<0.003	0.009	0.050	0.009	0.67	LOWEST
USGS-SC1	08/21/19	1	Potassium		O	03/24/14-08/21/19	62	62	1	1	1	0		HIGHEST
USGS-SC1	08/21/19	2	Sodium		O	03/24/14-08/21/19	62	62	2	2	3	0		LOWEST
USGS-SC1	08/21/19	0.15	Strontium (TRC)		O	03/24/14-08/21/19	62	62	0.119 L	0.14	0.16	0.01	1.00	
USGS-SC1	08/21/19	1	Chloride		O	03/24/14-08/21/19	62	62	1	2	5	1	1.00	LOWEST
USGS-SC1	08/21/19	24.42	Flow	Cubi	O	05/05/14-08/21/19	41	41	NF-ICE	32.15	111.32	28.06	0.28	
USGS-SC1	08/21/19	<0.1	Fluoride		O	03/24/14-08/21/19	62	1	<0.1	0.1	<0.1	0		HIGHEST
USGS-SC1	08/21/19	0.01	N+N		O	03/24/14-08/21/19	62	43	0.01	0.04	0.13	0.04	0.75	LOWEST

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Report Date: September 23, 2019

Quarterly Monitoring

STATION	SAMPLE DATE	RESULT	PARAMETER		QC Code	COMPARISON PERIOD	N	# OF DET	MIN	MEAN:	MAX	STDDARD DEVIATION	STD DEVS FROM MEAN	RELATION TO DATABASE PERIOD
		s.u.							s.u.	s.u.	s.u.			
USGS-SC1	08/21/19	8.45	Field pH	s.u.	O	03/24/14-08/21/19	62	62	6.67 A	8	8.67	0.45	1.00	
USGS-SC1	08/21/19	347	Field SC	umh	O	03/24/14-08/21/19	63	63	137	328	408	49	0.39	
USGS-SC1	08/21/19	203 D	TDS		O	03/24/14-08/21/19	62	62	132 D	189	230	21	0.67	
USGS-SC1	08/21/19	190	Alkalinity		O	03/24/14-08/21/19	62	62	120	177	220	22	0.59	
USGS-SC1	08/21/19	179	Hardness		O	03/24/14-08/21/19	62	61	<7	175	214	31	0.13	
USGS-SC1	08/21/19	<4	TSS		O	03/24/14-08/21/19	62	17	<4	8	38	6	0.67	LOWEST
USGS-SC1	08/21/19	12.5	Water Temp	Deg	O	03/24/14-08/21/19	63	63	-0.98	4	13.1	4.3	1.98	
USGS-SC1	08/21/19	9.48	DO		O	03/24/14-08/21/19	63	63	7.12	11.24	16.55	1.64	1.07	
USGS-SC1	08/21/19	6	Sulfate		O	03/24/14-08/21/19	62	62	3	6	8	1	0.00	
USGS-SC1	08/21/19	0.07	Total N Pers		O	04/29/15-08/21/19	48	38	<0.003	0.12	1.1 J	0.16	0.31	

NOTES: Summary of the comparison of Validation data to the Database Period Data, showing Parameters that are Three of more Standard Deviations from the Mean of the Database Period and the Relationship to these Data.

All results in mg/L unless otherwise noted. All results laboratory unless field (FLD) or Calculated (CALC). N: Number of samples in comparison data set; 50% of data must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

APPENDIX 2

DATABASE

Analyses Summary Report

Site Name: Black Butte Mine 9/23/2019 10:43:12 AM

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DS-1	DS-10	DS-11	DS-2
Water	Sample Date	8/21/2019	8/21/2019	8/20/2019	8/20/2019	8/20/2019	8/20/2019
	Sample Time	1:15:00 PM	2:00:00 PM	2:15:00 PM	11:35:00 AM	12:00:00 PM	10:40:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	H19080621-009	H19080622-012	H19080622-002	z	z	z
	Sample Number	BBC-1908-128	BBC-1908-129	BBC-1908-108	BBC-1908-103	BBC-1908-104	BBC-1908-100
	Remarks						
Field Parameters	Multiple Units						
Dissolved Oxygen				9.41	8.85	9.29	7.38
Field pH				8.08	7.63	7.85	7.33
Field Specific Conductivity				402	384	418	351
Flow							
Flow				5.94	3.71	3.75	0.43
Staff Gauge							
Water Temperature				11	7.9	10.2	13.8
Physical Parameters	mg/L						
Total Dissolved Solids		<10	<10	232			
Total Suspended Solids		<4	<10	<10			
Major Constituents - Commons Ions	mg/L						
Alkalinity as CaCO3		<4	<4	220			
Calcium (DIS)		<1	<1	54			
Chloride		<1	<1	<1			
Fluoride		<0.1	<0.1	0.1			
Hardness as CaCO3		<1	<1	219			
Magnesium (DIS)		<1	<1	20			
Potassium (DIS)		<1	<1	<1			
Sodium (DIS)		<1	<1	2			
Sulfate		<1	<1	16			
Nutrients	mg/L						
Nitrate + Nitrite as N		<0.01	<0.01	0.22			
Phosphorus (TOT)		<0.003					
Total Nitrogen as N (Persulfate)		<0.04					
Metals - Trace Constituents	Multiple Units						
Aluminum (DIS)		<0.009	<0.009	<0.009			
Antimony (DIS)			<0.0005	<0.0005			
Antimony (TRC)		<0.0005					
Arsenic (DIS)			<0.001	<0.001			
Arsenic (TRC)		<0.001					
Barium (DIS)			<0.003	0.051			
Barium (TRC)		<0.003					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DS-1	DS-10	DS-11	DS-2
Water	Sample Date	8/21/2019	8/21/2019	8/20/2019	8/20/2019	8/20/2019	8/20/2019
	Sample Time	1:15:00 PM	2:00:00 PM	2:15:00 PM	11:35:00 AM	12:00:00 PM	10:40:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	H19080621-009	H19080622-012	H19080622-002	z	z	z
	Sample Number	BBC-1908-128	BBC-1908-129	BBC-1908-108	BBC-1908-103	BBC-1908-104	BBC-1908-100
	Remarks						

Metals - Trace Constituents	Multiple Units					
Beryllium (DIS)		<0.0008	<0.0008			
Beryllium (TRC)	<0.0008					
Cadmium (DIS)		<0.00003	<0.00003			
Cadmium (TRC)	<0.00003					
Chromium (DIS)		<0.01	<0.01			
Chromium (TRC)	<0.01					
Cobalt (DIS)		<0.01	<0.01			
Cobalt (TRC)	<0.01					
Copper (DIS)		<0.002	<0.002			
Copper (TRC)	<0.002					
Iron (DIS)		<0.02	<0.02			
Iron (TRC)	<0.02					
Lead (DIS)		<0.0003	<0.0003			
Lead (TRC)	<0.0003					
Manganese (DIS)		<0.005	<0.005			
Manganese (TRC)	<0.005					
Mercury (DIS)		<0.005	<0.005			
Mercury (TRC)	<0.005					
Molybdenum (DIS)		<0.002	<0.002			
Molybdenum (TRC)	<0.002					
Nickel (DIS)		<0.001	<0.001			
Nickel (TRC)	<0.001					
Selenium (DIS)		<0.0002	0.0002			
Selenium (TRC)	<0.0002					
Silver (DIS)		<0.0002	<0.0002			
Silver (TRC)	<0.0002					
Strontium (DIS)		<0.0002	0.108			
Strontium (TRC)	<0.0002					
Thallium (DIS)		<0.0002	<0.0002			
Thallium (TRC)	<0.0002					
Uranium (DIS)		<0.0002	0.0006			
Uranium (TRC)	<0.0002					
Zinc (DIS)		<0.002	<0.002			

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DS-1	DS-10	DS-11	DS-2
Water	Sample Date	8/21/2019	8/21/2019	8/20/2019	8/20/2019	8/20/2019	8/20/2019
	Sample Time	1:15:00 PM	2:00:00 PM	2:15:00 PM	11:35:00 AM	12:00:00 PM	10:40:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	H19080621-009	H19080622-012	H19080622-002	z	z	z
	Sample Number	BBC-1908-128	BBC-1908-129	BBC-1908-108	BBC-1908-103	BBC-1908-104	BBC-1908-100
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Zinc (TRC)	<0.002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 9/23/2019 10:43:12 AM

Sample Type:	Station (Site)	DS-3	DS-4	DS-7	DS-8	DS-9	SP-10
Water	Sample Date	8/20/2019	8/20/2019	8/20/2019	8/20/2019	8/20/2019	8/20/2019
	Sample Time	3:35:00 PM	4:00:00 PM	4:15:00 PM	11:00:00 AM	11:20:00 AM	1:20:00 PM
	Lab	Energy Labs	Hydro	Hydro	Hydro	Hydro	Energy Labs
	Lab Number	H19080622-004	z	z	z	z	H19080622-001
	Sample Number	BBC-1908-111	BBC-1908-112	BBC-1908-114	BBC-1908-101	BBC-1908-102	BBC-1908-106
	Remarks						

Field Parameters	Multiple Units					
Dissolved Oxygen	5.86		9.07	8.93	8.03	7.95
Field pH	8.07		7.72	7.75	7.85	8.1
Field Specific Conductivity	55.2		256	429	367	402
Flow						
Flow	7.69	NM	6.24	3.12	7.26	2.6
Staff Gauge						
Water Temperature	12.3		10	9	9.4	12.2
Physical Parameters	mg/L					
Total Dissolved Solids	58					235
Total Suspended Solids	<10					<10
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	23					220
Calcium (DIS)	6					54
Chloride	<1					<1
Fluoride	<0.1					0.1
Hardness as CaCO3	21					217
Magnesium (DIS)	2					20
Potassium (DIS)	1					1
Sodium (DIS)	1					2
Sulfate	2					15
Nutrients	mg/L					
Nitrate + Nitrite as N	0.3					0.22
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	0.892					<0.009
Antimony (DIS)	<0.0005					<0.0005
Antimony (TRC)						
Arsenic (DIS)	<0.001					<0.001
Arsenic (TRC)						
Barium (DIS)	0.267					0.052
Barium (TRC)						

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Sample Type:	Station (Site)	DS-3	DS-4	DS-7	DS-8	DS-9	SP-10
Water	Sample Date	8/20/2019	8/20/2019	8/20/2019	8/20/2019	8/20/2019	8/20/2019
	Sample Time	3:35:00 PM	4:00:00 PM	4:15:00 PM	11:00:00 AM	11:20:00 AM	1:20:00 PM
	Lab	Energy Labs	Hydro	Hydro	Hydro	Hydro	Energy Labs
	Lab Number	H19080622-004	z	z	z	z	H19080622-001
	Sample Number	BBC-1908-111	BBC-1908-112	BBC-1908-114	BBC-1908-101	BBC-1908-102	BBC-1908-106
	Remarks						

Metals - Trace Constituents	Multiple Units					
Beryllium (DIS)	<0.0008					<0.0008
Beryllium (TRC)						
Cadmium (DIS)	<0.00003					<0.00003
Cadmium (TRC)						
Chromium (DIS)	<0.01					<0.01
Chromium (TRC)						
Cobalt (DIS)	<0.01					<0.01
Cobalt (TRC)						
Copper (DIS)	<0.002					<0.002
Copper (TRC)						
Iron (DIS)	0.41					<0.02
Iron (TRC)						
Lead (DIS)	<0.0003					<0.0003
Lead (TRC)						
Manganese (DIS)	<0.005					<0.005
Manganese (TRC)						
Mercury (DIS)	0.006					<0.005
Mercury (TRC)						
Molybdenum (DIS)	<0.002					<0.002
Molybdenum (TRC)						
Nickel (DIS)	0.003					<0.001
Nickel (TRC)						
Selenium (DIS)	<0.0002					0.0003
Selenium (TRC)						
Silver (DIS)	<0.0002					<0.0002
Silver (TRC)						
Strontium (DIS)	0.0292					0.113
Strontium (TRC)						
Thallium (DIS)	<0.0002					<0.0002
Thallium (TRC)						
Uranium (DIS)	<0.0002					0.0007
Uranium (TRC)						
Zinc (DIS)	0.004					<0.002

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Sample Type:	Station (Site)	DS-3	DS-4	DS-7	DS-8	DS-9	SP-10
Water	Sample Date	8/20/2019	8/20/2019	8/20/2019	8/20/2019	8/20/2019	8/20/2019
	Sample Time	3:35:00 PM	4:00:00 PM	4:15:00 PM	11:00:00 AM	11:20:00 AM	1:20:00 PM
	Lab	Energy Labs	Hydro	Hydro	Hydro	Hydro	Energy Labs
	Lab Number	H19080622-004	z	z	z	z	H19080622-001
	Sample Number	BBC-1908-111	BBC-1908-112	BBC-1908-114	BBC-1908-101	BBC-1908-102	BBC-1908-106
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 9/23/2019 10:43:12 AM

Sample Type:	Station (Site)	SP-11	SP-11	SP-12	SP-3	SP-4	SP-5
Water	Sample Date	8/21/2019	8/21/2019	8/21/2019	8/20/2019	8/21/2019	8/20/2019
	Sample Time	10:00:00 AM	10:20:00 AM	9:00:00 AM	4:15:00 PM	8:30:00 AM	2:35:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19080622-010	H19080622-011	H19080622-008	H19080622-005	H19080622-007	H19080622-003
	Sample Number	BBC-1908-120	BBC-1908-121	BBC-1908-118	BBC-1908-113	BBC-1908-117	BBC-1908-109
	Remarks		DUPLICATE				

Field Parameters	Multiple Units					
Dissolved Oxygen	6.93		5.64	5.02	9.84	6.29
Field pH	7.59		8.1	7.73	7.85	7.99
Field Specific Conductivity	192		419	168	415	412
Flow						
Flow				0.94	11.2	1.93
Staff Gauge						
Water Temperature	6.8		8.7	17	7.1	16.8
Physical Parameters	mg/L					
Total Dissolved Solids	117	116	239	123	229	233
Total Suspended Solids	<10	<10	<10	61	<10	89
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	94	94	200	83	200	230
Calcium (DIS)	23	23	52	25	47	57
Chloride	<1	<1	10	1	<1	<1
Fluoride	0.1	0.1	0.2	0.1	0.2	<0.1
Hardness as CaCO3	92	92	222	83	217	216
Magnesium (DIS)	8	8	23	5	24	18
Potassium (DIS)	1	1	1	1	2	<1
Sodium (DIS)	3	3	2	3	2	2
Sulfate	7	7	21	7	32	10
Nutrients	mg/L					
Nitrate + Nitrite as N	0.26	0.26	0.26	0.22	0.32	0.02
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	0.023	0.027	<0.009	0.156	<0.009	0.029
Antimony (DIS)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Antimony (TRC)						
Arsenic (DIS)	0.006	0.006	<0.001	0.002	<0.001	<0.001
Arsenic (TRC)						
Barium (DIS)	0.304	0.301	0.172	0.29	0.112	0.058
Barium (TRC)						

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Sample Type:	Station (Site)	SP-11	SP-11	SP-12	SP-3	SP-4	SP-5
Water	Sample Date	8/21/2019	8/21/2019	8/21/2019	8/20/2019	8/21/2019	8/20/2019
	Sample Time	10:00:00 AM	10:20:00 AM	9:00:00 AM	4:15:00 PM	8:30:00 AM	2:35:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19080622-010	H19080622-011	H19080622-008	H19080622-005	H19080622-007	H19080622-003
	Sample Number	BBC-1908-120	BBC-1908-121	BBC-1908-118	BBC-1908-113	BBC-1908-117	BBC-1908-109
	Remarks		DUPLICATE				
	Metals - Trace Constituents	Multiple Units					
	Beryllium (DIS)	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
	Beryllium (TRC)						
	Cadmium (DIS)	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
	Cadmium (TRC)						
	Chromium (DIS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Chromium (TRC)						
	Cobalt (DIS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Cobalt (TRC)						
	Copper (DIS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	Copper (TRC)						
	Iron (DIS)	<0.02	<0.02	<0.02	0.1	<0.02	<0.02
	Iron (TRC)						
	Lead (DIS)	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
	Lead (TRC)						
	Manganese (DIS)	<0.005	<0.005	<0.005	0.011	0.008	0.017
	Manganese (TRC)						
	Mercury (DIS)	<0.005	<0.005	<0.005	0.005	<0.005	<0.005
	Mercury (TRC)						
	Molybdenum (DIS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
	Molybdenum (TRC)						
	Nickel (DIS)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Nickel (TRC)						
	Selenium (DIS)	<0.0002	<0.0002	<0.0002	<0.0002	0.0004	<0.0002
	Selenium (TRC)						
	Silver (DIS)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
	Silver (TRC)						
	Strontium (DIS)	0.102	0.102	0.104	0.0724	0.0706	0.136
	Strontium (TRC)						
	Thallium (DIS)	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002
	Thallium (TRC)						
	Uranium (DIS)	0.0003	0.0003	0.0005	<0.0002	0.0004	0.0005
	Uranium (TRC)						
	Zinc (DIS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-11	SP-11	SP-12	SP-3	SP-4	SP-5
Water	Sample Date	8/21/2019	8/21/2019	8/21/2019	8/20/2019	8/21/2019	8/20/2019
	Sample Time	10:00:00 AM	10:20:00 AM	9:00:00 AM	4:15:00 PM	8:30:00 AM	2:35:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19080622-010	H19080622-011	H19080622-008	H19080622-005	H19080622-007	H19080622-003
	Sample Number	BBC-1908-120	BBC-1908-121	BBC-1908-118	BBC-1908-113	BBC-1908-117	BBC-1908-109
	Remarks		DUPLICATE				
	Metals - Trace Constituents	Multiple Units					
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-6	SP-7	SW-1	SW-14	SW-17	SW-18
Water	Sample Date	8/20/2019	8/21/2019	8/21/2019	8/21/2019	8/21/2019	8/20/2019
	Sample Time	5:00:00 PM	9:30:00 AM	10:40:00 AM	11:20:00 AM	11:00:00 AM	5:30:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro
	Lab Number	H19080622-006	H19080622-009	H19080621-003	H19080621-005	H19080621-004	z
	Sample Number	BBC-1908-115	BBC-1908-119	BBC-1908-122	BBC-1908-124	BBC-1908-123	BBC-1908-116
	Remarks						

Field Parameters	Multiple Units					
Dissolved Oxygen	8.73	2.87	9.6	8.94	9.7	
Field pH	7.75	7.79	8.46	8.08	8.2	
Field Specific Conductivity	284	325	304	399	431	
Flow			33.11	1.33	0.25	NM-DRY
Flow	0.98	17.1				
Staff Gauge			1.01	0.47		
Water Temperature	9.1	7.9	11.8	14	9.9	
Physical Parameters	mg/L					
Total Dissolved Solids	169	190	178 D	229 D	256 D	
Total Suspended Solids	73	<10	5	<4	5	
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	150	170	160	220	210	
Calcium (DIS)	36	41	42	51	50	
Chloride	1	2	1	2	5	
Fluoride	0.1	0.3	<0.1	0.2	0.2	
Hardness as CaCO3	146	159	150	202	219	
Magnesium (DIS)	14	14	11	18	23	
Potassium (DIS)	1	3	1	1	1	
Sodium (DIS)	2	5	2	3	3	
Sulfate	10	11	6	7	25	
Nutrients	mg/L					
Nitrate + Nitrite as N	0.46	0.37	<0.01	0.02	0.11	
Phosphorus (TOT)			0.009	0.009	0.01	
Total Nitrogen as N (Persulfate)			0.1	0.12	0.23	
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009	<0.009	<0.009	<0.009	<0.009	
Antimony (DIS)	<0.0005	<0.0005				
Antimony (TRC)			<0.0005	<0.0005	<0.0005	
Arsenic (DIS)	<0.001	0.004				
Arsenic (TRC)			<0.001	<0.001	<0.001	
Barium (DIS)	0.212	0.118				
Barium (TRC)			0.108	0.12	0.159	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- J: The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-6	SP-7	SW-1	SW-14	SW-17	SW-18
Water	Sample Date	8/20/2019	8/21/2019	8/21/2019	8/21/2019	8/21/2019	8/20/2019
	Sample Time	5:00:00 PM	9:30:00 AM	10:40:00 AM	11:20:00 AM	11:00:00 AM	5:30:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro
	Lab Number	H19080622-006	H19080622-009	H19080621-003	H19080621-005	H19080621-004	z
	Sample Number	BBC-1908-115	BBC-1908-119	BBC-1908-122	BBC-1908-124	BBC-1908-123	BBC-1908-116
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Beryllium (DIS)	<0.0008	<0.0008				
	Beryllium (TRC)			<0.0008	<0.0008	<0.0008	
	Cadmium (DIS)	<0.00003	<0.00003				
	Cadmium (TRC)			<0.00003	<0.00003	<0.00003	
	Chromium (DIS)	<0.01	<0.01				
	Chromium (TRC)			<0.01	<0.01	<0.01	
	Cobalt (DIS)	<0.01	<0.01				
	Cobalt (TRC)			<0.01	<0.01	<0.01	
	Copper (DIS)	<0.002	<0.002				
	Copper (TRC)			<0.002	<0.002	<0.002	
	Iron (DIS)	<0.02	<0.02				
	Iron (TRC)			0.13	0.06	0.21	
	Lead (DIS)	<0.0003	<0.0003				
	Lead (TRC)			<0.0003	<0.0003	<0.0003	
	Manganese (DIS)	<0.005	<0.005				
	Manganese (TRC)			0.014	0.008	0.024	
	Mercury (DIS)	<0.005	<0.005				
	Mercury (TRC)			<0.005	<0.005	<0.005	
	Molybdenum (DIS)	<0.002	<0.002				
	Molybdenum (TRC)			<0.002	<0.002	<0.002	
	Nickel (DIS)	<0.001	<0.001				
	Nickel (TRC)			<0.001	<0.001	<0.001	
	Selenium (DIS)	0.0002	0.0003				
	Selenium (TRC)			<0.0002	<0.0002	<0.0002	
	Silver (DIS)	<0.0002	<0.0002				
	Silver (TRC)			<0.0002	<0.0002	<0.0002	
	Strontium (DIS)	0.0787	0.169				
	Strontium (TRC)			0.123	0.122	0.138	
	Thallium (DIS)	0.0005	0.001				
	Thallium (TRC)			<0.0002	<0.0002	<0.0002	
	Uranium (DIS)	0.0004	0.0008				
	Uranium (TRC)			0.0003	0.0005	0.0006	
	Zinc (DIS)	<0.002	<0.002				

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-6	SP-7	SW-1	SW-14	SW-17	SW-18
Water	Sample Date	8/20/2019	8/21/2019	8/21/2019	8/21/2019	8/21/2019	8/20/2019
	Sample Time	5:00:00 PM	9:30:00 AM	10:40:00 AM	11:20:00 AM	11:00:00 AM	5:30:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro
	Lab Number	H19080622-006	H19080622-009	H19080621-003	H19080621-005	H19080621-004	z
	Sample Number	BBC-1908-115	BBC-1908-119	BBC-1908-122	BBC-1908-124	BBC-1908-123	BBC-1908-116
	Remarks						
	Metals - Trace Constituents Multiple Units						
	Zinc (TRC)			<0.002	<0.002	<0.002	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 9/23/2019 10:43:12 AM

Sample Type:	Station (Site)	SW-19	SW-2	SW-2	SW-3	SW-4	USGS-SC1
Water	Sample Date	8/20/2019	8/21/2019	8/21/2019	8/20/2019	8/20/2019	8/21/2019
	Sample Time	12:55:00 PM	11:50:00 AM	12:15:00 PM	3:00:00 PM	1:50:00 PM	12:35:00 PM
	Lab	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	z	H19080621-006	H19080621-007	H19080621-002	H19080621-001	H19080621-008
	Sample Number	BBC-1908-105	BBC-1908-125	BBC-1908-126	BBC-1908-110	BBC-1908-107	BBC-1908-127
	Remarks						

Field Parameters	Multiple Units					
Dissolved Oxygen	8.72	9.6		8.33	7.89	9.48
Field pH	8.36	8.5		8.41	8.17	8.45
Field Specific Conductivity	396	299		407	366	347
Flow	0.14	30.89		0.056	0.008	24.42
Flow						
Staff Gauge		0.55				
Water Temperature	14.2	12.7		13.8	13.7	12.5
Physical Parameters	mg/L					
Total Dissolved Solids		173 D	175 D	244 D	207 D	203 D
Total Suspended Solids		<4	<4	4	5	<4
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3		160	160	210	200	190
Calcium (DIS)		43	43	47	49	51
Chloride		1	1	4	<1	1
Fluoride		<0.1	<0.1	0.2	0.1	<0.1
Hardness as CaCO3		152	153	216	206	179
Magnesium (DIS)		11	11	24	20	13
Potassium (DIS)		1	1	1	1	1
Sodium (DIS)		2	2	2	3	2
Sulfate		5	6	21	10	6
Nutrients	mg/L					
Nitrate + Nitrite as N		<0.01	<0.01	0.08	0.09	0.01
Phosphorus (TOT)		0.006	0.007	0.018	0.011	0.003
Total Nitrogen as N (Persulfate)		0.08	0.08	0.17	0.2	0.07
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)		<0.009	<0.009	<0.009	<0.009	<0.009
Antimony (DIS)						
Antimony (TRC)		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (DIS)						
Arsenic (TRC)		<0.001	<0.001	<0.001	<0.001	<0.001
Barium (DIS)						
Barium (TRC)		0.102	0.102	0.172	0.15	0.076

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-19	SW-2	SW-2	SW-3	SW-4	USGS-SC1
Water	Sample Date	8/20/2019	8/21/2019	8/21/2019	8/20/2019	8/20/2019	8/21/2019
	Sample Time	12:55:00 PM	11:50:00 AM	12:15:00 PM	3:00:00 PM	1:50:00 PM	12:35:00 PM
	Lab	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	z	H19080621-006	H19080621-007	H19080621-002	H19080621-001	H19080621-008
	Sample Number	BBC-1908-105	BBC-1908-125	BBC-1908-126	BBC-1908-110	BBC-1908-107	BBC-1908-127
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Beryllium (DIS)						
	Beryllium (TRC)	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	
	Cadmium (DIS)						
	Cadmium (TRC)	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	
	Chromium (DIS)						
	Chromium (TRC)	<0.01	<0.01	<0.01	<0.01	<0.01	
	Cobalt (DIS)						
	Cobalt (TRC)	<0.01	<0.01	<0.01	<0.01	<0.01	
	Copper (DIS)						
	Copper (TRC)	<0.002	<0.002	<0.002	<0.002	<0.002	
	Iron (DIS)						
	Iron (TRC)	0.11	0.11	0.05	0.19	0.08	
	Lead (DIS)						
	Lead (TRC)	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	
	Manganese (DIS)						
	Manganese (TRC)	0.008	0.009	<0.005	0.012	0.007	
	Mercury (DIS)						
	Mercury (TRC)	<0.005	<0.005	<0.005	<0.005	<0.005	
	Molybdenum (DIS)						
	Molybdenum (TRC)	<0.002	<0.002	<0.002	<0.002	<0.002	
	Nickel (DIS)						
	Nickel (TRC)	<0.001	<0.001	<0.001	<0.001	<0.001	
	Selenium (DIS)						
	Selenium (TRC)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
	Silver (DIS)						
	Silver (TRC)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
	Strontium (DIS)						
	Strontium (TRC)	0.124	0.129	0.123	0.183	0.15	
	Thallium (DIS)						
	Thallium (TRC)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
	Uranium (DIS)						
	Uranium (TRC)	0.0003	0.0003	0.0006	0.0008	0.0004	
	Zinc (DIS)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-19	SW-2	SW-2	SW-3	SW-4	USGS-SC1
Water	Sample Date	8/20/2019	8/21/2019	8/21/2019	8/20/2019	8/20/2019	8/21/2019
	Sample Time	12:55:00 PM	11:50:00 AM	12:15:00 PM	3:00:00 PM	1:50:00 PM	12:35:00 PM
	Lab	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	z	H19080621-006	H19080621-007	H19080621-002	H19080621-001	H19080621-008
	Sample Number	BBC-1908-105	BBC-1908-125	BBC-1908-126	BBC-1908-110	BBC-1908-107	BBC-1908-127
	Remarks						
	Metals - Trace Constituents Multiple Units						
	Zinc (TRC)	<0.002	<0.002	<0.002	<0.002	<0.002	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

QUALITY CONTROL / QUALITY ASSURANCE
DATA VERIFICATION REPORT

BLACK BUTTE COPPER
WATER RESOURCE MONITORING

SEPTEMBER 2019

Prepared by
Hydrometrics, Inc.
3020 Bozeman Avenue
Helena, MT 59601

NOVEMBER 2019

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APPENDIX 2: DATABASE SUMMARY REPORT

GLOSSARY OF TERMS

CCB ..... Continuing Calibration Blank

CCV ..... Continuing Calibration Verification

CLP ..... Contract Laboratory Program

CRDL..... Contract Required Detection Limit

DIé é é é é Deionized Water

FAA ..... Flame Atomic Absorption

GFAA..... Graphite Furnace Atomic Absorption

HGAA ..... Hydride Generation Atomic Absorption

ICB..... Initial Calibration Blank

ICP ..... Inductively Coupled Plasma

ICV ..... Initial Calibration Verification

IDL..... Instrument Detection Limit

LCS ..... Laboratory Control Sample

MSA..... Method of Standard Additions

PB ..... Preparation Blank

PRDL ..... Project Required Detection Limit

QAPP ..... Quality Assurance Project Plan

QC..... Quality Control

RPD..... Relative Percent Difference

RSD..... Relative Standard Deviation

SOW..... Statement of Work

TDS..... Total Dissolved Solids

DATA VALIDATION REPORT

1. INTRODUCTION

This validation applies to 157 samples collected for the Black Butte Tintina surface water and groundwater monitoring program. All sampling occurred in September 2019. All samples were submitted to Energy Laboratories in Helena, Montana and were assigned Laboratory IDs: H19090608, H19090658, H19090441, and H19090556. The total number of samples included: 50 groundwater and surface water samples including 3 field duplicates, and 4 field deionized (DI and Rinsate) blanks and 100 field site observations.

- Validation procedures used are generally consistent with:
  (Check all that apply)
  _X_ EPA CLP National Functional Guidelines for Inorganics Data Review
  _X_ EPA CLP National Functional Guidelines for Organic Data Review
  _X_ Montana Department of Environmental Quality, Data Validation Guidelines for Evaluating Analytical Data, Hydrometrics, September 2010

2. DELIVERABLES

- All laboratory document deliverables were present as specified in the CLP-Statement of Work and/or the project contract
  _X_ Yes
  ___No

- All documentation of field procedures was provided as required
  _X_ Yes
  ___No

3. FIELD QUALITY CONTROL SAMPLES

- Field blanks
  Please note that the highest blank value associated with any particular analyte is the blank value used for the flagging process.
  DI, trip, rinsate, or any other field blanks have been carried out at the proper frequency
  _X_ Yes
  ___No

  Reported results on the field blanks are less than the contract required detection limits (CRDL) or the project required detection limits (PRDL) if project detection limits have been specified
  ____Yes
  _X_ No ï see following table

Date	Parameter	Sample Result (mg/L)	Reporting Limit (mg/L)	Number of Flags
9/20/19	Strontium (DIS)	0.0003	<0.0002	0

B ï Field Blank exceeded QA/QC comparison control limits.

  Field duplicates have been collected at the proper frequency
  _X_ Yes
  ___No

  Field duplicate relative percent differences (RPDs) were within the required control limits (25 percent or less for water matrix and 50 percent or less for soil matrix)
  _X_ Yes
  ___No

4. LABORATORY PROCEDURES

- Laboratory Case Narrative Notes any non conformance issues with the analytical data
  ___Yes
  ___No
  _X_NA

- Samples were received by the laboratory at the proper temperature
  _X_Yesï see following notes
  ___No
  NOTES: In the Energy Laboratory sample check-in receipt the following was noted that the1L and 500mL bottles in sample sets BBC-1909-201 and BBC-1909-202 were received partially frozen.

- Holding times met
  _X_Yes
  ___No

- Consistency with project requirements
  _X_Yes
  ___No

- Sample Conditions met at Check-in
  _X_Yesï see following notes
  ___No
  NOTES: In the Energy Laboratory sample check-in receipt the following was noted:
  H19090658- Metals sample BBC-1909-152 was preserved to pH <2 in laboratory upon receipt. Nutrients sample BBC-1909-152 was preserved to pH <2 with 2 mL of sulfuric acid per 250 mL in the laboratory upon receipt.
  H19090441- 1L and 500mL bottles in sample sets BBC-1909-201 and BBC-1909-202 were received partially frozen.

- Reporting units appropriate for the associated sample matrix and methods of analysis
  _X_Yes
  ___No

- Project specified methods were used
  _X_Yesï see following list of methods used
  ___No
  NOTES: It should be noted that parameters were analyzed using different methods than requested; however, all methods used by the laboratory are comparable. The following methods were used during analyses: A2540D, A2540C, A2320B, E300.0, A4500-F C, A2340B, E353.2, A4500-N C, E365.1, E200.8, and E200.7.

- Detection Limits met project required detection limits (PRDL)
  _X_Yesï see following notes
  ___No
  NOTES: It should be noted that total dissolved solids and zinc had a reporting limit increases due to sample matrix interference (D). TDS had a limit of 10 mg/l used not the requested 4 mg/l. Strontium had the 0.0003 mg/l reporting limit was used in place of the requested 0.0002 mg/l; and zinc had a varying reporting limit as high as 0.02 mg/L not the requested 0.002 mg/L. In addition, a reporting limit of 0.01 mg/l was used for nitrate + nitrite as n as replacement of the 0.003 mg/l requested. Finally, Zinc and Strontium values were flagged

with an L to indicate that the lowest available reporting limit was used per method used for analysis.

5. INITIAL OR CONTINUING CALIBRATION VERIFICATION RESULTS

- Initial or Continuing Calibration Verification samples were within acceptable limits
  _X_ Yes
  ___ No

6. LABORATORY BLANKS

- **PREPARATION/METHOD BLANKS**

  Preparation/Method blanks were prepared and analyzed at the required frequency
  _X_ Yes
  ___ No

  All analytes in the preparation blank were less than the CRDL (or PRDL if a project detection limit has been specified)
  _X_ Yes
  ___ No

7. MATRIX SPIKE /MATRIX SPIKE DUPLICATES (MS/MSD)

- Matrix spike samples were analyzed at the proper frequency
  _X_ Yes
  ____ No

- Matrix spike recoveries were within control limits
  ____ Yes
  _X_ No ï see following table

QC Sample ID	Parameter	% REC	Lab Flag	Lab Advisory Limits (% REC)
H19090654-003BMS	Total Persulfate Nitrogen	89	S	90-110
H19090658-001BMS	Iron	197	S	70-130
H19090654-001CMS	Total Persulfate Nitrogen	119	S	90-110
H19090556-001MCS	Nitrate+Nitrite as N	89	S	90-110

S ï Spike recovery outside of recovery limits

- Matrix spike RPDôs were within control limits
  _X_ Yes
  ____ No

- Matrix spike duplicate samples were analyzed at the proper frequency
  _X_ Yes
  ____ No

- Matrix spike duplicate RPDôs were within control limits
  ____ Yes
  _X_ No ï see following table

QC Sample ID	Parameter	% RPD	Lab Flag	Lab Advisory Limits (% RPD)
H19090556-021ADUP	Total Suspended Solids	9.5	R	5
H19090567-002ADUP	Total Suspended Solids	10	R	5

R ï Relative Percent Difference outside of recovery limits

- Matrix spike duplicate recoveries were within the laboratory specified control limits.

___Yes
_X_No ï see following table

QC Sample ID	Parameter	% REC	Lab Flag	Lab Advisory Limits (% REC)
H19090654-003BMSD	Total Persulfate Nitrogen	87	S	90-110
H19090658-001BMSD	Iron	153	S	70-130
H19090654-001CMSD	Total Persulfate Nitrogen	115	S	90-110
H19090556-001MCSD	Nitrate+Nitrite as N	88	S	90-110

S ï Spike recovery outside of recovery limits

8. LABORATORY CONTROL SAMPLES

- LCS Samples

Laboratory Control Samples used the correct matrix and concentrations
___Yes
___No
_X_NA

Laboratory Control Samples were prepared and analyzed at the required frequency
___Yes
___No
_X_NA

All analytes in the laboratory control samples were less than the control limits specified
_X_Yes
___No

9. DATA QUALITY OBJECTIVES

- Project data quality objectives (DQOs) met

_X_Yes
___No

Accuracy
Accuracy for this project is the degree of agreement between an analytical measurement and a reference accepted as a true value. The accuracy of a measurement system can be affected by errors introduced by field contamination, sample preservation, sample handling, sample preparation and analytical techniques. Analysis of MS/MSD samples, laboratory control spikes (LCS) or blank spikes, surrogate standards and method blanks are typically used to calculate the percent recovery for evaluating accuracy. Accuracy for this sampling event was 98 percent.

Precision
Precision for this project is the degree of mutual agreement between individual measurements of the same property under similar conditions. Combined field and laboratory precision is

evaluated by collecting and analyzing field duplicate and then calculating the variance between the samples, typically as a relative percent difference (RPD). Laboratory analytical precision is evaluated by analyzing matrix spike/matrix spike duplicate samples and using the results to calculate an RPD. The combined precision was 99 percent for this sampling event for both laboratory and field.

Representativeness

Representativeness for this project is the degree to which sample data accurately and precisely represent the characteristics of a population, and variations in a parameter at a sampling point or an environmental condition that they are intended to represent. Typically representative data will be obtained through careful selection of sampling locations and analytical parameters; proper collection and handling of samples and through use and consistent application of established field and laboratory procedures. Evaluation of field and laboratory blank samples for presence of contaminants can be useful in evaluating representativeness of sample results. Both laboratory and field representativeness for this sampling event was 100 percent.

Completeness

The target completeness for this project is the percent of the measurements valid (not rejected). Valid data are obtained when samples are collected and analyzed in accordance with quality control procedures outlined in the SAP, and when none of the QC criteria that affect data usability are exceeded. Once data validation is complete the number of useable sample results is divided by the total number of sample results planned for the investigation to determine the percent completeness. Completeness for this sampling event was 100 percent.

Comparability

Comparability is the expression of the confidence with which one data set can be compared with another. Comparability of data is achieved by consistently following standard field and laboratory procedures and by using standard measurement units in reporting analytical data. This criterion was met.

REFERENCES

Montana Department of Environmental Quality, Data Validation Guidelines for Evaluating Analytical Data (Updated August 5, 2010)

EPA, 2017a. National Functional Guidelines for Organic Superfund Methods Data Review. EPA-540-R-2017-002. Office of Superfund Remediation and Technology Innovation. January 2017.

EPA, 2017b. National Functional Guidelines for Inorganic Superfund Methods Data Review. EPA-540-R-2017-001. Office of Superfund Remediation and Technology Innovation. January 2017.

Hem, J.D., 1992. Study and Interpretation of the Chemical Characteristics of Natural Water, 3rd edition. US Geological Survey Water Supply Paper 2254.

APPENDIX 1

TABLES

TABLE 1.

DATA VALIDATION CODES AND DEFINITIONS

CODE	DEFINITION
J	-The associated numerical value is an estimated quantity because quality control criteria were not met.
B	- Blank contamination. Indicates possible high bias and / or false positive. The associated value is an estimate.
R	- Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis is necessary for verification.
A	- Anomalous data. No apparent explanation for discrepancy in data. (Not an EPA code.)

Table 2. Summary of Flagged Data

StationName	Sample Date	Field Sample Id	Lab Name	Lab Sample Id	Parameter Name	Sample Result	Reporting Units	Validation Flag	Exceedance Type

Data Comparison Summary

Report Date: November 7, 2019

Quarterly Monitoring

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DS-1	09/25/19	<0.000	Antimony (DIS)		O	03/25/15-08/20/19	33	0	<0.0005	0.0005	<0.0005	0		HIGHEST
DS-1	09/25/19	<0.000	Beryllium (DIS)		O	03/25/15-08/20/19	33	0	<0.0008	0.0008	<0.0008	0		HIGHEST
DS-1	09/25/19	<0.000	Cadmium (DIS)		O	03/25/15-08/20/19	33	0	<0.00003	0.00003	<0.00003	0		HIGHEST
DS-1	09/25/19	<0.01	Chromium (DIS)		O	03/25/15-08/20/19	33	0	<0.01	0.01	<0.01	0		HIGHEST
DS-1	09/25/19	<0.002	Copper (DIS)		O	03/25/15-08/20/19	33	1	<0.002	0.002	0.007	0.001	0.00	LOWEST
DS-1	09/25/19	<0.005	Mercury (DIS)	ug/L	O	03/25/15-08/20/19	32	0	<0.000005	0.001	<0.005	0.002	2.00	HIGHEST
DS-1	09/25/19	<0.002	Molybdenum (DIS)		O	03/25/15-08/20/19	33	0	<0.002	0.002	<0.002	0		HIGHEST
DS-1	09/25/19	<0.001	Nickel (DIS)		O	03/25/15-08/20/19	33	0	<0.001	0.001	<0.001	0		HIGHEST
DS-1	09/25/19	<0.000	Selenium (DIS)		O	03/25/15-08/20/19	33	9	0.0002	0.0002	0.0002	0		HIGHEST
DS-1	09/25/19	<0.000	Silver (DIS)		O	03/25/15-08/20/19	33	0	<0.0002	0.0002	<0.0002	0		HIGHEST
DS-1	09/25/19	<0.000	Thallium (DIS)		O	03/25/15-08/20/19	33	0	<0.0002	0.0002	<0.0002	0		HIGHEST
DS-1	09/25/19	<0.002	Zinc (DIS)		O	03/25/15-08/20/19	33	25	<0.002	0.008	0.03	0.007	0.86	LOWEST
DS-1	09/25/19	<0.001	Arsenic (DIS)		O	03/25/15-08/20/19	33	0	<0.001	0.001	<0.001	0		HIGHEST
DS-1	09/25/19	<0.000	Lead (DIS)		O	03/25/15-08/20/19	33	0	<0.0003	0.0003	<0.0003	0		HIGHEST
DS-1	09/25/19	0.0007	Uranium (DIS)		O	03/25/15-08/20/19	33	5	0.0006	0.0069	<0.008	0.0027	2.30	
DS-1	09/25/19	<0.009	Aluminum (DIS)		O	03/25/15-08/20/19	34	1	<0.009	0.009	0.024	0.003	0.00	LOWEST
DS-1	09/25/19	<0.01	Cobalt (DIS)		O	03/25/15-08/20/19	33	0	<0.01	0.01	<0.01	0		HIGHEST
DS-1	09/25/19	53	Calcium		O	03/25/15-08/20/19	34	34	46	57	62	3	1.33	
DS-1	09/25/19	0.071	Barium (DIS)		O	03/25/15-08/20/19	33	33	0.041	0.051	0.074	0.007	2.86	
DS-1	09/25/19	<0.02	Iron (DIS)		O	03/25/15-08/20/19	33	2	<0.02	0.02	0.06	0.01	0.00	LOWEST
DS-1	09/25/19	20	Magnesium		O	03/25/15-08/20/19	34	34	17	21	23	1	1.00	
DS-1	09/25/19	<0.005	Manganese (DIS)		O	03/25/15-08/20/19	33	0	<0.005	0.005	<0.005	0		HIGHEST
DS-1	09/25/19	<1	Potassium		O	03/25/15-08/20/19	34	0	<1	1	<1	0		HIGHEST
DS-1	09/25/19	2	Sodium		O	03/25/15-08/20/19	34	34	1	2	2	0		HIGHEST
DS-1	09/25/19	0.119	Strontium (DIS)		O	03/25/15-08/20/19	33	33	0.0847	0.107	0.119	0.007	1.71	HIGHEST
DS-1	09/25/19	<1	Chloride		O	03/25/15-08/20/19	34	0	<1	1	<1	0		HIGHEST
DS-1	09/25/19	4.35	Flow	Gallo	O	03/25/15-08/20/19	30	30	0.05800	12.8	62.27	15.02	0.56	
DS-1	09/25/19	0.1	Fluoride		O	03/25/15-08/20/19	34	31	0.1	0.1	0.1	0		HIGHEST
DS-1	09/25/19	0.08	N+N		O	03/25/15-08/20/19	34	34	0.03	0.19	0.26	0.05	2.20	
DS-1	09/25/19	8.11	Field pH	s.u.	O	03/25/15-08/20/19	33	33	7.36	7.79	8.56	0.29	1.10	
DS-1	09/25/19	411	Field SC	umh	O	03/25/15-08/20/19	34	34	337	422	698.7	54	0.20	

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DS-1	09/25/19	228	TDS		O	03/25/15-08/20/19	34	34	203	230	245	10	0.20	
DS-1	09/25/19	220	Alkalinity		O	03/25/15-08/20/19	34	34	180	215	220	8	0.62	HIGHEST
DS-1	09/25/19	215	Hardness		O	03/25/15-08/20/19	34	34	185	229	249	12	1.17	
DS-1	09/25/19	<10	TSS		O	03/25/15-08/20/19	34	10	<10	64	1130	201	0.27	LOWEST
DS-1	09/25/19	8.1	Water Temp	Deg	O	03/25/15-08/20/19	34	34	0.5	6.8	18.25	3.4	0.38	
DS-1	09/25/19	9.67	DO		O	03/25/15-08/20/19	34	34	8.15	36.39	916	155.43	0.17	
DS-1	09/25/19	14	Sulfate		O	03/25/15-08/20/19	34	34	11	15	18	2	0.50	
DS-3	09/24/19	<0.000	Antimony (DIS)		O	08/06/14-08/20/19	31	0	<0.0005	0.0005	<0.0005	0		HIGHEST
DS-3	09/24/19	<0.000	Beryllium (DIS)		O	08/06/14-08/20/19	31	0	<0.0008	0.0008	<0.0008	0		HIGHEST
DS-3	09/24/19	<0.000	Cadmium (DIS)		O	08/06/14-08/20/19	31	2	<0.00003	0.00003	<0.00003	0		HIGHEST
DS-3	09/24/19	<0.01	Chromium (DIS)		O	08/06/14-08/20/19	31	0	<0.005	0.01	<0.01	0		HIGHEST
DS-3	09/24/19	<0.002	Copper (DIS)		O	08/06/14-08/20/19	31	20	<0.002	0.003	0.005	0.001	1.00	LOWEST
DS-3	09/24/19	0.006	Mercury (DIS)	ug/L	O	08/06/14-08/20/19	31	20	0.000002	0.001	0.02 D	0.004	1.25	
DS-3	09/24/19	<0.002	Molybdenum (DIS)		O	08/06/14-08/20/19	31	0	<0.001	0.002	<0.002	0		HIGHEST
DS-3	09/24/19	0.002	Nickel (DIS)		O	08/06/14-08/20/19	31	30	<0.001	0.004	0.006	0.001	2.00	
DS-3	09/24/19	<0.000	Selenium (DIS)		O	08/06/14-08/20/19	31	5	0.0001	0.0002	<0.0002	0		HIGHEST
DS-3	09/24/19	<0.000	Silver (DIS)		O	08/06/14-08/20/19	31	0	<0.0002	0.0002	<0.0002	0		HIGHEST
DS-3	09/24/19	<0.000	Thallium (DIS)		O	08/06/14-08/20/19	31	0	<0.0002	0.0002	<0.0002	0		HIGHEST
DS-3	09/24/19	<0.002	Zinc (DIS)		O	08/06/14-08/20/19	31	25	0.002	0.005	0.015 J	0.004	0.75	LOWEST
DS-3	09/24/19	<0.001	Arsenic (DIS)		O	08/06/14-08/20/19	31	7	<0.001	0.001	0.002	0		LOWEST
DS-3	09/24/19	<0.000	Lead (DIS)		O	08/06/14-08/20/19	31	13	0.0001	0.0004	0.0011	0.0002	0.50	
DS-3	09/24/19	<0.000	Uranium (DIS)		O	08/06/14-08/20/19	31	0	<0.0002	0.006	<0.008	0.0034	1.71	LOWEST
DS-3	09/24/19	0.177	Aluminum (DIS)		O	08/06/14-08/20/19	32	32	0.114	2.043	8.17 D	1.715	1.09	
DS-3	09/24/19	<0.01	Cobalt (DIS)		O	08/06/14-08/20/19	31	0	<0.005	0.01	<0.01	0		HIGHEST
DS-3	09/24/19	6	Calcium		O	08/06/14-08/20/19	32	32	5	6	7	1	0.00	
DS-3	09/24/19	0.274	Barium (DIS)		O	08/06/14-08/20/19	31	31	0.229	0.278	0.345	0.025	0.16	
DS-3	09/24/19	0.21	Iron (DIS)		O	08/06/14-08/20/19	31	31	0.08	1.06	3.69	0.89	0.96	
DS-3	09/24/19	2	Magnesium		O	08/06/14-08/20/19	32	32	1	2	2	0		HIGHEST
DS-3	09/24/19	<0.005	Manganese (DIS)		O	08/06/14-08/20/19	31	22	<0.001	0.007	0.024	0.006	0.33	
DS-3	09/24/19	1	Potassium		O	08/06/14-08/20/19	32	28	<1	1	2	0		LOWEST
DS-3	09/24/19	1	Sodium		O	08/06/14-08/20/19	32	32	1	1	2	0		LOWEST

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DS-3	09/24/19	0.0306	Strontium (DIS)		O	08/06/14-08/20/19	31	31	0.0231	0.0291	0.0324	0.0022	0.68	
DS-3	09/24/19	<1	Chloride		O	08/06/14-08/20/19	32	3	<1	1	<1	0		HIGHEST
DS-3	09/24/19	1	Flow	Gallo	O	08/06/14-08/20/19	28	28	0.47	13	159	29	0.41	
DS-3	09/24/19	<0.1	Fluoride		O	08/06/14-08/20/19	32	2	0.04	0.1	<0.1	0		HIGHEST
DS-3	09/24/19	0.36	N+N		O	08/06/14-08/20/19	32	32	0.11	0.28	0.48	0.09	0.89	
DS-3	09/24/19	7.03	Field pH	s.u.	O	08/06/14-08/20/19	32	32	5.56	7.11	8.7	0.95	0.08	
DS-3	09/24/19	54	Field SC	umh	O	08/06/14-08/20/19	32	32	40	59	132	20	0.25	
DS-3	09/24/19	56	TDS		O	08/06/14-08/20/19	32	32	47	72	128	21	0.76	
DS-3	09/24/19	24	Alkalinity		O	08/06/14-08/20/19	32	32	17	22	29	3	0.67	
DS-3	09/24/19	21	Hardness		O	08/06/14-08/20/19	32	32	19	23	26	2	1.00	
DS-3	09/24/19	<10	TSS		O	08/06/14-08/20/19	32	4	<4	15	95	18	0.28	
DS-3	09/24/19	10.3	Water Temp	Deg	O	08/06/14-08/20/19	32	32	3.8	8.8	15.1	3	0.50	
DS-3	09/24/19	8.05	DO		O	08/06/14-08/20/19	32	32	3.72	6.9	10.8	2.1	0.55	
DS-3	09/24/19	2	Sulfate		O	08/06/14-08/20/19	32	32	1	1	2	0		HIGHEST
MW-10	09/19/19	<0.000	Antimony (DIS)		O	03/29/16-06/20/19	13	1	<0.0005	0.0015	0.0132	0.0035	0.29	LOWEST
MW-10	09/19/19	<0.000	Beryllium (DIS)		O	03/29/16-06/20/19	13	0	<0.0008	0.0008	<0.0008	0		HIGHEST
MW-10	09/19/19	<0.000	Cadmium (DIS)		O	03/29/16-06/20/19	13	1	<0.00003	0.00003	0.00008	0.00001	0.00	LOWEST
MW-10	09/19/19	<0.01	Chromium (DIS)		O	03/29/16-06/20/19	13	1	0.01	0.01	0.01	0		HIGHEST
MW-10	09/19/19	<0.002	Copper (DIS)		O	03/29/16-06/20/19	13	2	<0.002	0.003	0.01	0.002	0.50	LOWEST
MW-10	09/19/19	<0.005	Mercury (DIS)	ug/L	O	03/29/16-06/20/19	13	1	<0.000005	0.0004	<0.005	0.001	4.60	HIGHEST
MW-10	09/19/19	0.004	Molybdenum (DIS)		O	03/29/16-06/20/19	13	13	0.004	0.007	0.012	0.002	1.50	LOWEST
MW-10	09/19/19	<0.001	Nickel (DIS)		O	03/29/16-06/20/19	13	11	0.001	0.003	0.009	0.002	1.00	LOWEST
MW-10	09/19/19	<0.000	Selenium (DIS)		O	03/29/16-06/20/19	13	5	0.0002	0.0002	0.0004	0.0001	0.00	LOWEST
MW-10	09/19/19	<0.000	Silver (DIS)		O	03/29/16-06/20/19	13	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-10	09/19/19	<0.000	Thallium (DIS)		O	03/29/16-06/20/19	13	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-10	09/19/19	<0.002	Zinc (DIS)		O	03/29/16-06/20/19	13	5	<0.002	0.004	0.015	0.004	0.50	LOWEST
MW-10	09/19/19	<0.001	Arsenic (DIS)		O	03/29/16-06/20/19	13	1	<0.001	0.001	<0.001	0		HIGHEST
MW-10	09/19/19	<0.000	Lead (DIS)		O	03/29/16-06/20/19	13	4	<0.0003	0.0006	0.0021	0.0006	0.50	LOWEST
MW-10	09/19/19	0.0051	Uranium (DIS)		O	03/29/16-06/20/19	13	11	0.0051	0.0125	0.02	0.005	1.48	LOWEST
MW-10	09/19/19	<0.009	Aluminum (DIS)		O	03/29/16-06/20/19	13	13	0.009	0.584	3.66	1.107	0.52	LOWEST
MW-10	09/19/19	<0.01	Cobalt (DIS)		O	03/29/16-06/20/19	13	0	<0.01	0.01	<0.01	0		HIGHEST

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MW-10	09/19/19	42	Calcium		O	03/29/16-06/20/19	13	13	35	40	46	4	0.50	
MW-10	09/19/19	0.204	Barium (DIS)		O	03/29/16-06/20/19	13	13	0.135	0.182	0.211	0.026	0.85	
MW-10	09/19/19	<0.02	Iron (DIS)		O	03/29/16-06/20/19	13	8	<0.02	0.55	3.58	1.07	0.50	LOWEST
MW-10	09/19/19	17	Magnesium		O	03/29/16-06/20/19	13	13	16	17	18	1	0.00	
MW-10	09/19/19	<0.005	Manganese (DIS)		O	03/29/16-06/20/19	13	8	0.005	0.035	0.168	0.049	0.61	LOWEST
MW-10	09/19/19	2	Potassium		O	03/29/16-06/20/19	13	13	2	3	7	1	1.00	LOWEST
MW-10	09/19/19	6	Sodium		O	03/29/16-06/20/19	13	13	6	7	11	2	0.50	LOWEST
MW-10	09/19/19	0.886	Strontium (DIS)		O	03/29/16-06/20/19	13	13	0.796	1.089	1.35	0.18	1.13	
MW-10	09/19/19	74.79	SWL	Feet	O	03/29/16-06/20/19	13	13	64.92	74.59	82.88	5.97	0.03	
MW-10	09/19/19	<1	Chloride		O	03/29/16-06/20/19	13	3	<1	2	4	1	1.00	LOWEST
MW-10	09/19/19	0.2	Fluoride		O	03/29/16-06/20/19	13	13	0.2	0.3	0.5	0.1	1.00	LOWEST
MW-10	09/19/19	0.57	N+N		O	03/29/16-06/20/19	13	13	0.46	0.54	0.62	0.04	0.75	
MW-10	09/19/19	7.75	Field pH	s.u.	O	03/29/16-06/20/19	13	13	7.56	7.85	8.04	0.17	0.59	
MW-10	09/19/19	356	Field SC	umh	O	03/29/16-06/20/19	13	13	314	336	364	14	1.43	
MW-10	09/19/19	197	TDS		O	03/29/16-06/20/19	13	13	174 D	195	244	17	0.12	
MW-10	09/19/19	190	Alkalinity		O	03/29/16-06/20/19	13	13	170	180	210	10	1.00	
MW-10	09/19/19	174	Hardness		O	03/29/16-06/20/19	13	13	156	170	185	11	0.36	
MW-10	09/19/19	<10	TSS		O	03/29/16-06/20/19	13	11	<10	339	2830 D	760	0.43	LOWEST
MW-10	09/19/19	9.1	Water Temp	Deg	O	03/29/16-06/20/19	13	13	5.9	7.7	9.7	1.1	1.27	
MW-10	09/19/19	7.71	DO		O	03/29/16-06/20/19	13	13	4.96	7.35	9.77	1.5	0.24	
MW-10	09/19/19	4	Sulfate		O	03/29/16-06/20/19	13	13	3	5	8	2	0.50	
MW-10	09/19/19	261.15	EH	Milliv	O	03/21/18-06/20/19	5	5	253.6804	278.606	297.43	17.69	0.99	
MW-11	09/19/19	<0.000	Antimony (DIS)		O	03/29/16-06/21/19	13	0	<0.0005	0.0005	<0.0005	0		HIGHEST
MW-11	09/19/19	<0.000	Beryllium (DIS)		O	03/29/16-06/21/19	13	0	<0.0008	0.0008	<0.0008	0		HIGHEST
MW-11	09/19/19	<0.000	Cadmium (DIS)		O	03/29/16-06/21/19	13	0	<0.00003	0.00003	<0.00003	0		HIGHEST
MW-11	09/19/19	<0.01	Chromium (DIS)		O	03/29/16-06/21/19	13	0	<0.01	0.01	<0.01	0		HIGHEST
MW-11	09/19/19	<0.002	Copper (DIS)		O	03/29/16-06/21/19	13	0	<0.002	0.002	<0.002	0		HIGHEST
MW-11	09/19/19	<0.005	Mercury (DIS)	ug/L	O	03/29/16-06/21/19	13	0	<0.000005	0.0004	<0.005	0.001	4.60	HIGHEST
MW-11	09/19/19	<0.002	Molybdenum (DIS)		O	03/29/16-06/21/19	13	0	<0.002	0.002	<0.002	0		HIGHEST
MW-11	09/19/19	<0.001	Nickel (DIS)		O	03/29/16-06/21/19	13	5	<0.001	0.001	0.003	0.001	0.00	LOWEST
MW-11	09/19/19	<0.000	Selenium (DIS)		O	03/29/16-06/21/19	13	0	<0.0002	0.0002	<0.0004	0.0001	0.00	LOWEST

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MW-11	09/19/19	<0.000	Silver (DIS)		O	03/29/16-06/21/19	13	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-11	09/19/19	<0.000	Thallium (DIS)		O	03/29/16-06/21/19	13	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-11	09/19/19	<0.002	Zinc (DIS)		O	03/29/16-06/21/19	13	1	<0.002	0.002	0.004	0.001	0.00	LOWEST
MW-11	09/19/19	<0.001	Arsenic (DIS)		O	03/29/16-06/21/19	13	0	<0.001	0.001	<0.001	0		HIGHEST
MW-11	09/19/19	<0.000	Lead (DIS)		O	03/29/16-06/21/19	13	2	<0.0003	0.0004	0.0013	0.0003	0.33	LOWEST
MW-11	09/19/19	0.0015	Uranium (DIS)		O	03/29/16-06/21/19	13	2	0.0015	0.007	<0.008	0.0024	2.29	LOWEST
MW-11	09/19/19	<0.009	Aluminum (DIS)		O	03/29/16-06/21/19	13	9	<0.009	0.206	1.5	0.429	0.46	LOWEST
MW-11	09/19/19	<0.01	Cobalt (DIS)		O	03/29/16-06/21/19	13	0	<0.01	0.01	<0.01	0		HIGHEST
MW-11	09/19/19	43	Calcium		O	03/29/16-06/21/19	13	13	40	43	46	2	0.00	
MW-11	09/19/19	0.155	Barium (DIS)		O	03/29/16-06/21/19	13	13	0.126	0.153	0.183	0.013	0.15	
MW-11	09/19/19	<0.02	Iron (DIS)		O	03/29/16-06/21/19	13	5	<0.02	0.16	1.6	0.44	0.32	LOWEST
MW-11	09/19/19	11	Magnesium		O	03/29/16-06/21/19	13	13	11	12	15	1	1.00	LOWEST
MW-11	09/19/19	<0.005	Manganese (DIS)		O	03/29/16-06/21/19	13	3	0.005	0.011	0.063	0.016	0.38	LOWEST
MW-11	09/19/19	2	Potassium		O	03/29/16-06/21/19	13	13	2	2	2	0		HIGHEST
MW-11	09/19/19	4	Sodium		O	03/29/16-06/21/19	13	13	4	7	21	4	0.75	LOWEST
MW-11	09/19/19	0.322	Strontium (DIS)		O	03/29/16-06/21/19	13	13	0.261	0.654	1.37	0.384	0.86	
MW-11	09/19/19	32.55	SWL	Feet	O	03/29/16-06/21/19	13	13	23.38	31.72	37.08	4.23	0.20	
MW-11	09/19/19	<1	Chloride		O	03/29/16-06/21/19	13	1	<1	1	2	0		LOWEST
MW-11	09/19/19	<0.1	Fluoride		O	03/29/16-06/21/19	13	8	0.1	0.1	0.1	0		HIGHEST
MW-11	09/19/19	0.4	N+N		O	03/29/16-06/21/19	13	13	0.37	0.4	0.53	0.1	0.00	
MW-11	09/19/19	7.7	Field pH	s.u.	O	03/29/16-06/21/19	13	13	7.4	7.6	7.73	0.1	1.00	
MW-11	09/19/19	315	Field SC	umh	O	03/29/16-06/21/19	13	13	295	321	393	27	0.22	
MW-11	09/19/19	177	TDS		O	03/29/16-06/21/19	13	13	160	184	238	18	0.39	
MW-11	09/19/19	170	Alkalinity		O	03/29/16-06/21/19	13	13	150	165	180	9	0.56	
MW-11	09/19/19	153	Hardness		O	03/29/16-06/21/19	13	13	148	157	163	5	0.80	
MW-11	09/19/19	12	TSS		O	03/29/16-06/21/19	13	12	<10	135	501	166	0.74	
MW-11	09/19/19	8.7	Water Temp	Deg	O	03/29/16-06/21/19	13	13	6.7	7.6	8.1	0.5	2.20	HIGHEST
MW-11	09/19/19	9.31	DO		O	03/29/16-06/21/19	13	13	5.09	7.51	9.57	1.32	1.36	
MW-11	09/19/19	5	Sulfate		O	03/29/16-06/21/19	13	13	4	8	31	7	0.43	
MW-11	09/19/19	259.02	EH	Milliv	O	03/20/18-06/21/19	5	5	255.64	275.01	293.82	15.129	1.06	
MW-12	09/19/19	<0.000	Antimony (DIS)		O	03/29/16-06/21/19	13	0	<0.0005	0.0005	<0.0005	0		HIGHEST

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MW-12	09/19/19	<0.000	Beryllium (DIS)		O	03/29/16-06/21/19	13	0	<0.0008	0.0008	<0.0008	0		HIGHEST
MW-12	09/19/19	<0.000	Cadmium (DIS)		O	03/29/16-06/21/19	13	0	<0.00003	0.00003	<0.00003	0		HIGHEST
MW-12	09/19/19	<0.01	Chromium (DIS)		O	03/29/16-06/21/19	13	0	<0.01	0.01	<0.01	0		HIGHEST
MW-12	09/19/19	<0.002	Copper (DIS)		O	03/29/16-06/21/19	13	0	<0.002	0.002	<0.002	0		HIGHEST
MW-12	09/19/19	<0.005	Mercury (DIS)	ug/L	O	03/29/16-06/21/19	13	0	<0.000005	0.0004	<0.005	0.001	4.60	HIGHEST
MW-12	09/19/19	<0.002	Molybdenum (DIS)		O	03/29/16-06/21/19	13	0	<0.002	0.002	<0.002	0		HIGHEST
MW-12	09/19/19	<0.001	Nickel (DIS)		O	03/29/16-06/21/19	13	0	<0.001	0.001	<0.001	0		HIGHEST
MW-12	09/19/19	<0.000	Selenium (DIS)		O	03/29/16-06/21/19	13	1	0.0002	0.0002	<0.0004	0.0001	0.00	LOWEST
MW-12	09/19/19	<0.000	Silver (DIS)		O	03/29/16-06/21/19	13	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-12	09/19/19	<0.000	Thallium (DIS)		O	03/29/16-06/21/19	13	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-12	09/19/19	<0.002	Zinc (DIS)		O	03/29/16-06/21/19	13	0	<0.002	0.002	<0.002	0		HIGHEST
MW-12	09/19/19	<0.001	Arsenic (DIS)		O	03/29/16-06/21/19	13	0	<0.001	0.001	<0.001	0		HIGHEST
MW-12	09/19/19	<0.000	Lead (DIS)		O	03/29/16-06/21/19	13	0	<0.0003	0.0003	<0.0003	0		HIGHEST
MW-12	09/19/19	0.0007	Uranium (DIS)		O	03/29/16-06/21/19	13	2	0.0007	0.0069	<0.008	0.0027	2.30	LOWEST
MW-12	09/19/19	<0.009	Aluminum (DIS)		O	03/29/16-06/21/19	13	1	<0.009	0.009	0.014	0.001	0.00	LOWEST
MW-12	09/19/19	<0.01	Cobalt (DIS)		O	03/29/16-06/21/19	13	0	<0.01	0.01	<0.01	0		HIGHEST
MW-12	09/19/19	56	Calcium		O	03/29/16-06/21/19	13	13	55	58	62	2	1.00	
MW-12	09/19/19	0.051	Barium (DIS)		O	03/29/16-06/21/19	13	13	0.048	0.052	0.055	0.002	0.50	
MW-12	09/19/19	<0.02	Iron (DIS)		O	03/29/16-06/21/19	13	0	<0.02	0.02	<0.02	0		HIGHEST
MW-12	09/19/19	19	Magnesium		O	03/29/16-06/21/19	13	13	18	19	20	1	0.00	
MW-12	09/19/19	<0.005	Manganese (DIS)		O	03/29/16-06/21/19	13	0	<0.005	0.005	<0.005	0		HIGHEST
MW-12	09/19/19	<1	Potassium		O	03/29/16-06/21/19	13	0	<1	1	<1	0		HIGHEST
MW-12	09/19/19	2	Sodium		O	03/29/16-06/21/19	13	13	2	2	2	0		HIGHEST
MW-12	09/19/19	0.135	Strontium (DIS)		O	03/29/16-06/21/19	13	13	0.136	0.142	0.149	0.003	2.33	LOWEST
MW-12	09/19/19	26.82	SWL	Feet	O	03/29/16-06/21/19	13	13	21.19	26.56	31.17	3.2	0.08	
MW-12	09/19/19	<1	Chloride		O	03/29/16-06/21/19	13	0	<1	1	<1	0		HIGHEST
MW-12	09/19/19	0.1	Fluoride		O	03/29/16-06/21/19	13	13	0.1	0.1	0.1	0		HIGHEST
MW-12	09/19/19	0.15	N+N		O	03/29/16-06/21/19	13	13	0.13	0.16	0.19	0.02	0.50	
MW-12	09/19/19	7.6	Field pH	s.u.	O	03/29/16-06/21/19	13	13	7.17	7.5	7.62	0.1	1.00	
MW-12	09/19/19	412	Field SC	umh	O	03/29/16-06/21/19	13	13	342	405	437	25	0.28	
MW-12	09/19/19	220	TDS		O	03/29/16-06/21/19	13	13	210	222	233	6	0.33	

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MW-12	09/19/19	220	Alkalinity		O	03/29/16-06/21/19	13	13	200	212	220	7	1.14	HIGHEST
MW-12	09/19/19	217	Hardness		O	03/29/16-06/21/19	13	13	212	225	239	7	1.14	
MW-12	09/19/19	<10	TSS		O	03/29/16-06/21/19	13	2	<4	11	26	5	0.20	
MW-12	09/19/19	6.5	Water Temp	Deg	O	03/29/16-06/21/19	13	13	5.4	6.3	7	0.4	0.50	
MW-12	09/19/19	8.38	DO		O	03/29/16-06/21/19	13	13	6.27	8.44	9.88	1.19	0.05	
MW-12	09/19/19	12	Sulfate		O	03/29/16-06/21/19	13	13	10	12	13	1	0.00	
MW-12	09/19/19	269.29	EH	Milliv	O	03/20/18-06/21/19	5	5	265.012	288.968	304.80	16.172	1.22	
MW-13	09/19/19	<0.000	Antimony (DIS)		O	03/29/16-06/21/19	13	0	<0.0005	0.0005	<0.0005	0		HIGHEST
MW-13	09/19/19	<0.000	Beryllium (DIS)		O	03/29/16-06/21/19	13	0	<0.0008	0.0008	<0.0008	0		HIGHEST
MW-13	09/19/19	<0.000	Cadmium (DIS)		O	03/29/16-06/21/19	13	0	<0.00003	0.00003	<0.00003	0		HIGHEST
MW-13	09/19/19	<0.01	Chromium (DIS)		O	03/29/16-06/21/19	13	0	<0.01	0.01	<0.01	0		HIGHEST
MW-13	09/19/19	<0.002	Copper (DIS)		O	03/29/16-06/21/19	13	0	<0.002	0.002	<0.002	0		HIGHEST
MW-13	09/19/19	<0.005	Mercury (DIS)	ug/L	O	03/29/16-06/21/19	13	0	<0.000005	0.0004	<0.005	0.001	4.60	HIGHEST
MW-13	09/19/19	<0.002	Molybdenum (DIS)		O	03/29/16-06/21/19	13	0	<0.002	0.002	<0.002	0		HIGHEST
MW-13	09/19/19	<0.001	Nickel (DIS)		O	03/29/16-06/21/19	13	1	<0.001	0.001	<0.001	0		HIGHEST
MW-13	09/19/19	<0.000	Selenium (DIS)		O	03/29/16-06/21/19	13	5	0.0002	0.0002	<0.0004	0.0001	0.00	LOWEST
MW-13	09/19/19	<0.000	Silver (DIS)		O	03/29/16-06/21/19	13	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-13	09/19/19	<0.000	Thallium (DIS)		O	03/29/16-06/21/19	13	1	<0.0002	0.0002	0.0003	0		LOWEST
MW-13	09/19/19	<0.002	Zinc (DIS)		O	03/29/16-06/21/19	13	1	<0.002	0.002	<0.002	0		HIGHEST
MW-13	09/19/19	<0.001	Arsenic (DIS)		O	03/29/16-06/21/19	13	0	<0.001	0.001	<0.001	0		HIGHEST
MW-13	09/19/19	<0.000	Lead (DIS)		O	03/29/16-06/21/19	13	1	<0.0003	0.0003	0.0004	0		LOWEST
MW-13	09/19/19	0.0005	Uranium (DIS)		O	03/29/16-06/21/19	13	2	0.0005	0.0068	<0.008	0.0028	2.25	LOWEST
MW-13	09/19/19	<0.009	Aluminum (DIS)		O	03/29/16-06/21/19	13	6	0.009	0.023	0.158	0.041	0.34	LOWEST
MW-13	09/19/19	<0.01	Cobalt (DIS)		O	03/29/16-06/21/19	13	0	<0.01	0.01	<0.01	0		HIGHEST
MW-13	09/19/19	58	Calcium		O	03/29/16-06/21/19	13	13	57	60	63	2	1.00	
MW-13	09/19/19	0.054	Barium (DIS)		O	03/29/16-06/21/19	13	13	0.054	0.056	0.059	0.001	2.00	LOWEST
MW-13	09/19/19	<0.02	Iron (DIS)		O	03/29/16-06/21/19	13	2	0.02	0.03	0.15	0.04	0.25	LOWEST
MW-13	09/19/19	20	Magnesium		O	03/29/16-06/21/19	13	13	20	21	22	1	1.00	LOWEST
MW-13	09/19/19	<0.005	Manganese (DIS)		O	03/29/16-06/21/19	13	2	<0.005	0.006	0.01	0.002	0.50	LOWEST
MW-13	09/19/19	<1	Potassium		O	03/29/16-06/21/19	13	0	<1	1	<1	0		HIGHEST
MW-13	09/19/19	1	Sodium		O	03/29/16-06/21/19	13	13	1	1	2	1	0.00	LOWEST

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MW-13	09/19/19	0.0963	Strontium (DIS)		O	03/29/16-06/21/19	13	13	0.0976	0.1022	0.109	0.0028	2.11	LOWEST
MW-13	09/19/19	27.6	SWL	Feet	O	03/29/16-06/21/19	13	13	16.68	20.4	22.5	1.9	3.79	HIGHEST
MW-13	09/19/19	<1	Chloride		O	03/29/16-06/21/19	13	1	1	1	1	0		HIGHEST
MW-13	09/19/19	0.1	Fluoride		O	03/29/16-06/21/19	13	12	0.1	0.1	0.1	0		HIGHEST
MW-13	09/19/19	0.16	N+N		O	03/29/16-06/21/19	13	13	0.15	0.2	0.27	0.03	1.33	
MW-13	09/19/19	7.57	Field pH	s.u.	O	03/29/16-06/21/19	13	13	6.26	7.38	7.68	0.42	0.45	
MW-13	09/19/19	425	Field SC	umh	O	03/29/16-06/21/19	13	13	388	424	458.7	22	0.05	
MW-13	09/19/19	231	TDS		O	03/29/16-06/21/19	13	13	221	233	248	7	0.29	
MW-13	09/19/19	220	Alkalinity		O	03/29/16-06/21/19	13	13	210	216	220	5	0.80	HIGHEST
MW-13	09/19/19	225	Hardness		O	03/29/16-06/21/19	13	13	222	235	245	7	1.43	
MW-13	09/19/19	52	TSS		O	03/29/16-06/21/19	13	9	<10	50	319 J	89	0.02	
MW-13	09/19/19	6.4	Water Temp	Deg	O	03/29/16-06/21/19	13	13	5.8	6.4	7	0.4	0.00	
MW-13	09/19/19	8.09	DO		O	03/29/16-06/21/19	13	13	6.32	7.63	9.05	0.93	0.49	
MW-13	09/19/19	15	Sulfate		O	03/29/16-06/21/19	13	13	12	15	18	2	0.00	
MW-13	09/19/19	267.81	EH	Milliv	O	03/20/18-06/21/19	5	5	272.878	288.898	302.18	12.316	1.71	LOWEST
MW-16	09/20/19	<0.000	Antimony (DIS)		O	01/24/18-06/20/19	6	0	<0.0005	0.0005	<0.0005	0		HIGHEST
MW-16	09/20/19	<0.000	Beryllium (DIS)		O	01/24/18-06/20/19	6	0	<0.0008	0.0008	<0.0008	0		HIGHEST
MW-16	09/20/19	<0.000	Cadmium (DIS)		O	01/24/18-06/20/19	6	0	<0.00003	0.00003	<0.00003	0		HIGHEST
MW-16	09/20/19	<0.01	Chromium (DIS)		O	01/24/18-06/20/19	6	0	<0.01	0.01	<0.01	0		HIGHEST
MW-16	09/20/19	<0.002	Copper (DIS)		O	01/24/18-06/20/19	6	0	<0.002	0.002	<0.002	0		HIGHEST
MW-16	09/20/19	<0.005	Mercury (DIS)	ug/L	O	01/24/18-06/20/19	6	0	<0.000005	0.001	<0.005	0.002	2.00	HIGHEST
MW-16	09/20/19	<0.002	Molybdenum (DIS)		O	01/24/18-06/20/19	6	0	<0.002	0.002	<0.002	0		HIGHEST
MW-16	09/20/19	<0.001	Nickel (DIS)		O	01/24/18-06/20/19	6	0	<0.001	0.001	<0.001	0		HIGHEST
MW-16	09/20/19	<0.000	Selenium (DIS)		O	01/24/18-06/20/19	6	1	0.0002	0.0002	0.0002	0		HIGHEST
MW-16	09/20/19	<0.000	Silver (DIS)		O	01/24/18-06/20/19	6	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-16	09/20/19	<0.000	Thallium (DIS)		O	01/24/18-06/20/19	6	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-16	09/20/19	0.005	Zinc (DIS)		O	01/24/18-06/20/19	6	6	0.004	0.01	0.022	0.007	0.71	
MW-16	09/20/19	0.005	Arsenic (DIS)		O	01/24/18-06/20/19	6	6	0.005	0.006	0.006	0.001	1.00	LOWEST
MW-16	09/20/19	<0.000	Lead (DIS)		O	01/24/18-06/20/19	6	2	<0.0003	0.0003	0.0004	0.0001	0.00	LOWEST
MW-16	09/20/19	0.0017	Uranium (DIS)		O	01/24/18-06/20/19	6	2	0.0017	0.0059	<0.008	0.0032	1.31	LOWEST
MW-16	09/20/19	<0.009	Aluminum (DIS)		O	01/24/18-06/20/19	6	4	<0.009	0.052	0.208 J	0.079	0.54	LOWEST

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Quarterly Monitoring

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MW-16	09/20/19	<0.01	Cobalt (DIS)		O	01/24/18-06/20/19	6	0	<0.01	0.01	<0.01	0		HIGHEST
MW-16	09/20/19	70	Calcium		O	01/24/18-06/20/19	6	6	67	73	78	4	0.75	
MW-16	09/20/19	0.017	Barium (DIS)		O	01/24/18-06/20/19	6	6	0.018	0.021	0.026	0.003	1.33	LOWEST
MW-16	09/20/19	1.26	Iron (DIS)		O	01/24/18-06/20/19	6	6	0.91	1.31	1.57	0.23	0.22	
MW-16	09/20/19	37	Magnesium		O	01/24/18-06/20/19	6	6	36	39	42	2	1.00	
MW-16	09/20/19	0.039	Manganese (DIS)		O	01/24/18-06/20/19	6	6	0.041	0.049	0.058 J	0.007	1.43	LOWEST
MW-16	09/20/19	3	Potassium		O	01/24/18-06/20/19	6	6	3	3	3	0		HIGHEST
MW-16	09/20/19	4	Sodium		O	01/24/18-06/20/19	6	6	4	4	4	0		HIGHEST
MW-16	09/20/19	0.287	Strontium (DIS)		O	01/24/18-06/20/19	6	6	0.276	0.303	0.331	0.023	0.70	
MW-16	09/20/19	7.35	SWL	Feet	O	01/24/18-06/20/19	6	6	5.4	7.33	8.75	1.52	0.01	
MW-16	09/20/19	2	Chloride		O	01/24/18-06/20/19	6	6	1	1	2	1	1.00	HIGHEST
MW-16	09/20/19	0.5	Fluoride		O	01/24/18-06/20/19	6	6	0.5	0.5	0.5	0		HIGHEST
MW-16	09/20/19	<0.01	N+N		O	01/24/18-06/20/19	6	1	<0.01	0.01	<0.01	0		HIGHEST
MW-16	09/20/19	7.25	Field pH	s.u.	O	01/24/18-06/20/19	6	6	7.14	7.28	7.33	0.07	0.43	
MW-16	09/20/19	615	Field SC	umh	O	01/24/18-06/20/19	6	6	568	615	653	34	0.00	
MW-16	09/20/19	372	TDS		O	01/24/18-06/20/19	6	6	329	370	395	28	0.07	
MW-16	09/20/19	250	Alkalinity		O	01/24/18-06/20/19	6	6	220	240	250	13	0.77	HIGHEST
MW-16	09/20/19	326	Hardness		O	01/24/18-06/20/19	6	6	326	344	368	18	1.00	LOWEST
MW-16	09/20/19	10	TSS		O	01/24/18-06/20/19	6	4	<10	28	82 J	27	0.67	LOWEST
MW-16	09/20/19	6.8	Water Temp	Deg	O	01/24/18-06/20/19	6	6	6.4	6.6	6.9	0.2	1.00	
MW-16	09/20/19	0.08	DO		O	01/24/18-06/20/19	6	6	0.01	0.18	0.32	0.12	0.83	
MW-16	09/20/19	95	Sulfate		O	01/24/18-06/20/19	6	6	72	97	107	14	0.14	
MW-16	09/20/19	143.84	EH	Milliv	O	03/21/18-06/20/19	5	5	155.61	171.976	187.23	13.411	2.10	LOWEST
MW-17	09/19/19	<0.000	Antimony (DIS)		O	06/14/18-06/21/19	4	0	<0.0005	0.0005	<0.0005	0		HIGHEST
MW-17	09/19/19	<0.000	Beryllium (DIS)		O	06/14/18-06/21/19	4	0	<0.0008	0.0008	<0.0008	0		HIGHEST
MW-17	09/19/19	<0.000	Cadmium (DIS)		O	06/14/18-06/21/19	4	0	<0.00003	0.00003	<0.00003	0		HIGHEST
MW-17	09/19/19	<0.01	Chromium (DIS)		O	06/14/18-06/21/19	4	0	<0.01	0.01	<0.01	0		HIGHEST
MW-17	09/19/19	<0.002	Copper (DIS)		O	06/14/18-06/21/19	4	0	<0.002	0.002	<0.002	0		HIGHEST
MW-17	09/19/19	<0.005	Mercury (DIS)	ug/L	O	06/14/18-06/21/19	4	0	<0.000005	0.001	<0.005	0.002	2.00	HIGHEST
MW-17	09/19/19	<0.002	Molybdenum (DIS)		O	06/14/18-06/21/19	4	0	<0.002	0.002	<0.002	0		HIGHEST
MW-17	09/19/19	<0.001	Nickel (DIS)		O	06/14/18-06/21/19	4	1	<0.001	0.001	0.002	0.001	0.00	LOWEST

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MW-17	09/19/19	0.0008	Selenium (DIS)		O	06/14/18-06/21/19	4	4	0.001	0.0011	0.0014	0.0002	1.50	LOWEST
MW-17	09/19/19	<0.000	Silver (DIS)		O	06/14/18-06/21/19	4	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-17	09/19/19	<0.000	Thallium (DIS)		O	06/14/18-06/21/19	4	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-17	09/19/19	0.005	Zinc (DIS)		O	06/14/18-06/21/19	4	4	0.006	0.008	0.011	0.002	1.50	LOWEST
MW-17	09/19/19	<0.001	Arsenic (DIS)		O	06/14/18-06/21/19	4	0	<0.001	0.001	<0.001	0		HIGHEST
MW-17	09/19/19	<0.000	Lead (DIS)		O	06/14/18-06/21/19	4	1	<0.0003	0.0005	0.001	0.0004	0.50	LOWEST
MW-17	09/19/19	0.0008	Uranium (DIS)		O	06/14/18-06/21/19	4	2	0.0008	0.0044	<0.008	0.0041	0.88	LOWEST
MW-17	09/19/19	<0.009	Aluminum (DIS)		O	06/14/18-06/21/19	4	1	<0.009	0.016	0.039	0.015	0.47	LOWEST
MW-17	09/19/19	<0.01	Cobalt (DIS)		O	06/14/18-06/21/19	4	0	<0.01	0.01	<0.01	0		HIGHEST
MW-17	09/19/19	42	Calcium		O	06/14/18-06/21/19	4	4	43	44	45	1	2.00	LOWEST
MW-17	09/19/19	0.267	Barium (DIS)		O	06/14/18-06/21/19	4	4	0.253	0.299	0.423	0.083	0.39	
MW-17	09/19/19	<0.02	Iron (DIS)		O	06/14/18-06/21/19	4	1	<0.02	0.03	0.07	0.03	0.33	LOWEST
MW-17	09/19/19	24	Magnesium		O	06/14/18-06/21/19	4	4	24	24	25	1	0.00	LOWEST
MW-17	09/19/19	<0.005	Manganese (DIS)		O	06/14/18-06/21/19	4	1	<0.005	0.009	0.021	0.008	0.50	LOWEST
MW-17	09/19/19	<1	Potassium		O	06/14/18-06/21/19	4	0	<1	1	<1	0		HIGHEST
MW-17	09/19/19	2	Sodium		O	06/14/18-06/21/19	4	4	2	2	2	0		HIGHEST
MW-17	09/19/19	0.103	Strontium (DIS)		O	06/14/18-06/21/19	4	4	0.105	0.118	0.143	0.017	0.88	LOWEST
MW-17	09/19/19	50.5	SWL	Feet	O	06/14/18-06/21/19	4	4	44.91	48.5	51.98	3.3	0.61	
MW-17	09/19/19	1	Chloride		O	06/14/18-06/21/19	4	4	1	2	2	0		LOWEST
MW-17	09/19/19	0.3	Fluoride		O	06/14/18-06/21/19	4	4	0.2	0.3	0.3	0		HIGHEST
MW-17	09/19/19	0.41	N+N		O	06/14/18-06/21/19	4	4	0.41	0.46	0.5	0.04	1.25	LOWEST
MW-17	09/19/19	7.75	Field pH	s.u.	O	06/14/18-06/21/19	4	4	7.65	7.72	7.75	0.05	0.60	HIGHEST
MW-17	09/19/19	385	Field SC	umh	O	06/14/18-06/21/19	4	4	358	377	386	13	0.62	
MW-17	09/19/19	213	TDS		O	06/14/18-06/21/19	4	4	198	206	213	7	1.00	HIGHEST
MW-17	09/19/19	200	Alkalinity		O	06/14/18-06/21/19	4	4	190	198	200	5	0.40	HIGHEST
MW-17	09/19/19	202	Hardness		O	06/14/18-06/21/19	4	4	206	211	214	4	2.25	LOWEST
MW-17	09/19/19	15	TSS		O	06/14/18-06/21/19	4	0	<10	10	<10	0		HIGHEST
MW-17	09/19/19	7.4	Water Temp	Deg	O	06/14/18-06/21/19	4	4	6.2	6.9	7.4	0.5	1.00	HIGHEST
MW-17	09/19/19	6.83	DO		O	06/14/18-06/21/19	4	4	5.82	6.32	6.62	0.38	1.34	HIGHEST
MW-17	09/19/19	8	Sulfate		O	06/14/18-06/21/19	4	4	8	8	9	1	0.00	LOWEST
MW-17	09/19/19	232.94	EH	Milliv	O	06/14/18-06/21/19	4	4	241.746	266.434	285.01	19.468	1.72	LOWEST

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MW-18	09/19/19	<0.000	Antimony (DIS)		O	01/24/18-11/14/18	5	0	<0.0005	0.0005	<0.0005	0		HIGHEST
MW-18	09/19/19	<0.000	Beryllium (DIS)		O	01/24/18-11/14/18	5	0	<0.0008	0.0008	<0.0008	0		HIGHEST
MW-18	09/19/19	<0.000	Cadmium (DIS)		O	01/24/18-11/14/18	5	1	<0.00003	0.00003	<0.00003	0		HIGHEST
MW-18	09/19/19	<0.01	Chromium (DIS)		O	01/24/18-11/14/18	5	0	<0.01	0.01	<0.01	0		HIGHEST
MW-18	09/19/19	<0.002	Copper (DIS)		O	01/24/18-11/14/18	5	0	<0.002	0.002	<0.002	0		HIGHEST
MW-18	09/19/19	<0.005	Mercury (DIS)	ug/L	O	01/24/18-11/14/18	5	0	<0.000005	0	<0.000005	0		HIGHEST
MW-18	09/19/19	<0.002	Molybdenum (DIS)		O	01/24/18-11/14/18	5	0	<0.002	0.002	<0.002	0		HIGHEST
MW-18	09/19/19	<0.001	Nickel (DIS)		O	01/24/18-11/14/18	5	0	<0.001	0.001	<0.001	0		HIGHEST
MW-18	09/19/19	0.0002	Selenium (DIS)		O	01/24/18-11/14/18	5	5	0.0002	0.0003	0.0004	0.0001	1.00	LOWEST
MW-18	09/19/19	<0.000	Silver (DIS)		O	01/24/18-11/14/18	5	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-18	09/19/19	<0.000	Thallium (DIS)		O	01/24/18-11/14/18	5	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-18	09/19/19	<0.002	Zinc (DIS)		O	01/24/18-11/14/18	5	1	<0.002	0.002	<0.002	0		HIGHEST
MW-18	09/19/19	<0.001	Arsenic (DIS)		O	01/24/18-11/14/18	5	0	<0.001	0.001	<0.001	0		HIGHEST
MW-18	09/19/19	<0.000	Lead (DIS)		O	01/24/18-11/14/18	5	2	0.0003	0.0004	0.0006	0.0001	1.00	LOWEST
MW-18	09/19/19	0.0004	Uranium (DIS)		O	01/24/18-11/14/18	5	1	0.0005	0.0065	<0.008	0.0034	1.79	LOWEST
MW-18	09/19/19	<0.009	Aluminum (DIS)		O	01/24/18-11/14/18	5	3	<0.009	0.024	0.061 J	0.022	0.68	LOWEST
MW-18	09/19/19	<0.01	Cobalt (DIS)		O	01/24/18-11/14/18	5	0	<0.01	0.01	<0.01	0		HIGHEST
MW-18	09/19/19	47	Calcium		O	01/24/18-11/14/18	5	5	45	49	51	2	1.00	
MW-18	09/19/19	0.098	Barium (DIS)		O	01/24/18-11/14/18	5	5	0.094	0.098	0.104	0.005	0.00	
MW-18	09/19/19	<0.02	Iron (DIS)		O	01/24/18-11/14/18	5	2	<0.02	0.04	0.08	0.03	0.67	LOWEST
MW-18	09/19/19	18	Magnesium		O	01/24/18-11/14/18	5	5	19	19	20	1	1.00	LOWEST
MW-18	09/19/19	<0.005	Manganese (DIS)		O	01/24/18-11/14/18	5	2	<0.005	0.006	0.009	0.002	0.50	LOWEST
MW-18	09/19/19	<1	Potassium		O	01/24/18-11/14/18	5	0	<1	1	<1	0		HIGHEST
MW-18	09/19/19	2	Sodium		O	01/24/18-11/14/18	5	5	2	2	2	0		HIGHEST
MW-18	09/19/19	0.1	Strontium (DIS)		O	01/24/18-11/14/18	5	5	0.0996	0.1	0.109	0		
MW-18	09/19/19	16.34	SWL	Feet	O	01/24/18-11/14/18	5	5	10.13	16.34	19.47	3.74	0.00	
MW-18	09/19/19	<1	Chloride		O	01/24/18-11/14/18	5	0	<1	1	<1	0		HIGHEST
MW-18	09/19/19	<0.1	Fluoride		O	01/24/18-11/14/18	5	1	<0.1	0.1	<0.1	0		HIGHEST
MW-18	09/19/19	0.17	N+N		O	01/24/18-11/14/18	5	5	0.17	0.19	0.22	0.02	1.00	LOWEST
MW-18	09/19/19	7.76	Field pH	s.u.	O	01/24/18-11/14/18	5	5	7.16	7.65	7.82	0.28	0.39	
MW-18	09/19/19	368	Field SC	umh	O	01/24/18-11/14/18	5	5	355	368	375	8	0.00	

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MW-18	09/19/19	200	TDS		O	01/24/18-11/14/18	5	5	200	208	220	8	1.00	LOWEST
MW-18	09/19/19	200	Alkalinity		O	01/24/18-11/14/18	5	5	190	194	200	5	1.20	HIGHEST
MW-18	09/19/19	191	Hardness		O	01/24/18-11/14/18	5	5	190	201	210	8	1.25	
MW-18	09/19/19	18	TSS		O	01/24/18-11/14/18	5	3	<10	35	71	26	0.65	
MW-18	09/19/19	6.7	Water Temp	Deg	O	01/24/18-11/14/18	5	5	4.9	6.6	7.4	1	0.10	
MW-18	09/19/19	8.63	DO		O	01/24/18-11/14/18	5	5	7.79	8.34	8.58	0.32	0.91	HIGHEST
MW-18	09/19/19	7	Sulfate		O	01/24/18-11/14/18	5	5	5	7	8	1	0.00	
MW-18	09/19/19	252.36	EH	Milliv	O	03/21/18-11/14/18	4	4	249.142	272.683	282.39	15.762	1.29	
MW-19	09/19/19	<0.000	Antimony (DIS)		O	01/24/18-06/21/19	6	0	<0.0005	0.0005	<0.0005	0		HIGHEST
MW-19	09/19/19	<0.000	Beryllium (DIS)		O	01/24/18-06/21/19	6	0	<0.0008	0.0008	<0.0008	0		HIGHEST
MW-19	09/19/19	<0.000	Cadmium (DIS)		O	01/24/18-06/21/19	6	0	<0.00003	0.00003	<0.00003	0		HIGHEST
MW-19	09/19/19	<0.01	Chromium (DIS)		O	01/24/18-06/21/19	6	0	<0.01	0.01	<0.01	0		HIGHEST
MW-19	09/19/19	<0.002	Copper (DIS)		O	01/24/18-06/21/19	6	0	<0.002	0.002	<0.002	0		HIGHEST
MW-19	09/19/19	<0.005	Mercury (DIS)	ug/L	O	01/24/18-06/21/19	6	0	<0.000005	0.001	<0.005	0.002	2.00	HIGHEST
MW-19	09/19/19	<0.002	Molybdenum (DIS)		O	01/24/18-06/21/19	6	0	<0.002	0.002	<0.002	0		HIGHEST
MW-19	09/19/19	<0.001	Nickel (DIS)		O	01/24/18-06/21/19	6	0	<0.001	0.001	<0.001	0		HIGHEST
MW-19	09/19/19	<0.000	Selenium (DIS)		O	01/24/18-06/21/19	6	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-19	09/19/19	<0.000	Silver (DIS)		O	01/24/18-06/21/19	6	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-19	09/19/19	<0.000	Thallium (DIS)		O	01/24/18-06/21/19	6	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-19	09/19/19	<0.002	Zinc (DIS)		O	01/24/18-06/21/19	6	0	<0.002	0.002	<0.002	0		HIGHEST
MW-19	09/19/19	<0.001	Arsenic (DIS)		O	01/24/18-06/21/19	6	0	<0.001	0.001	<0.001	0		HIGHEST
MW-19	09/19/19	<0.000	Lead (DIS)		O	01/24/18-06/21/19	6	0	<0.0003	0.0003	<0.0003	0		HIGHEST
MW-19	09/19/19	0.0007	Uranium (DIS)		O	01/24/18-06/21/19	6	2	0.0007	0.0056	<0.008	0.0038	1.29	LOWEST
MW-19	09/19/19	<0.009	Aluminum (DIS)		O	01/24/18-06/21/19	6	5	<0.009	0.021	0.054	0.017	0.71	LOWEST
MW-19	09/19/19	<0.01	Cobalt (DIS)		O	01/24/18-06/21/19	6	0	<0.01	0.01	<0.01	0		HIGHEST
MW-19	09/19/19	51	Calcium		O	01/24/18-06/21/19	6	6	48	54	57	4	0.75	
MW-19	09/19/19	0.086	Barium (DIS)		O	01/24/18-06/21/19	6	6	0.077	0.088	0.095	0.008	0.25	
MW-19	09/19/19	<0.02	Iron (DIS)		O	01/24/18-06/21/19	6	3	0.02	0.03	0.06	0.02	0.50	LOWEST
MW-19	09/19/19	19	Magnesium		O	01/24/18-06/21/19	6	6	19	20	22	1	1.00	LOWEST
MW-19	09/19/19	<0.005	Manganese (DIS)		O	01/24/18-06/21/19	6	1	<0.005	0.005	0.008	0.001	0.00	LOWEST
MW-19	09/19/19	<1	Potassium		O	01/24/18-06/21/19	6	0	<1	1	<1	0		HIGHEST

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Quarterly Monitoring

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MW-19	09/19/19	2	Sodium		O	01/24/18-06/21/19	6	6	2	2	3	1	0.00	LOWEST
MW-19	09/19/19	0.148	Strontium (DIS)		O	01/24/18-06/21/19	6	6	0.143 U	0.151	0.157	0.005	0.60	
MW-19	09/19/19	13.51	SWL	Feet	O	01/24/18-06/21/19	6	6	8.51	12.66	15.54	3.13	0.27	
MW-19	09/19/19	<1	Chloride		O	01/24/18-06/21/19	6	1	<1	1	<1	0		HIGHEST
MW-19	09/19/19	0.1	Fluoride		O	01/24/18-06/21/19	6	6	0.1	0.1	0.1	0		HIGHEST
MW-19	09/19/19	0.23	N+N		O	01/24/18-06/21/19	6	6	0.18	0.27	0.48	0.11	0.36	
MW-19	09/19/19	7.52	Field pH	s.u.	O	01/24/18-06/21/19	6	6	7.47	7.57	7.79	0.11	0.45	
MW-19	09/19/19	400	Field SC	umh	O	01/24/18-06/21/19	6	6	329	382	417	35	0.51	
MW-19	09/19/19	217	TDS		O	01/24/18-06/21/19	6	6	202	219	234	11	0.18	
MW-19	09/19/19	210	Alkalinity		O	01/24/18-06/21/19	6	6	180	200	210	13	0.77	HIGHEST
MW-19	09/19/19	208	Hardness		O	01/24/18-06/21/19	6	6	196	219	230	13	0.85	
MW-19	09/19/19	12	TSS		O	01/24/18-06/21/19	6	4	<10	20	37	11	0.73	
MW-19	09/19/19	7.7	Water Temp	Deg	O	01/24/18-06/21/19	6	6	6	7	8.1	0.8	0.87	
MW-19	09/19/19	7.47	DO		O	01/24/18-06/21/19	6	6	6.69	7.15	7.67	0.35	0.91	
MW-19	09/19/19	14	Sulfate		O	01/24/18-06/21/19	6	6	11	14	16	2	0.00	
MW-19	09/19/19	273.29	EH	Milliv	O	03/20/18-06/21/19	5	5	251.791	288.788	340.72	32.767	0.47	
MW-1A	09/18/19	<0.000	Antimony (DIS)		O	08/26/11-06/19/19	31	1	<0.0005	0.0009	<0.003	0.0009	0.44	LOWEST
MW-1A	09/18/19	<0.000	Beryllium (DIS)		O	08/26/11-06/19/19	31	1	<0.0008	0.0008	<0.001	0.0001	0.00	LOWEST
MW-1A	09/18/19	<0.000	Cadmium (DIS)		O	08/26/11-06/19/19	31	4	<0.00003	0.00004	0.00013	0.00003	0.33	LOWEST
MW-1A	09/18/19	<0.01	Chromium (DIS)		O	08/26/11-06/19/19	31	2	<0.001	0.01	0.01	0		HIGHEST
MW-1A	09/18/19	0.006	Copper (DIS)		O	08/26/11-06/19/19	31	31	0.002	0.015	0.129 D	0.028	0.32	
MW-1A	09/18/19	<0.005	Mercury (DIS)	ug/L	O	08/26/11-06/19/19	31	3	<0.000005	0.0002	<0.005	0.001	4.80	HIGHEST
MW-1A	09/18/19	<0.002	Molybdenum (DIS)		O	08/26/11-06/19/19	31	0	<0.001	0.003	<0.005	0.001	1.00	
MW-1A	09/18/19	<0.001	Nickel (DIS)		O	08/26/11-06/19/19	31	2	<0.001	0.003	<0.01	0.003	0.67	LOWEST
MW-1A	09/18/19	<0.000	Selenium (DIS)		O	08/26/11-06/19/19	31	9	<0.0002	0.0004	<0.001	0.0003	0.67	LOWEST
MW-1A	09/18/19	<0.000	Silver (DIS)		O	08/26/11-06/19/19	31	0	<0.0002	0.0002	<0.0005	0.0001	0.00	LOWEST
MW-1A	09/18/19	0.0009	Thallium (DIS)		O	08/26/11-06/19/19	31	31	0.0003	0.001	0.0048	0.0008	0.13	
MW-1A	09/18/19	<0.002	Zinc (DIS)		O	08/26/11-06/19/19	31	10	0.002	0.006	0.04	0.009	0.44	LOWEST
MW-1A	09/18/19	<0.001	Arsenic (DIS)		O	08/26/11-06/19/19	31	1	<0.001	0.002	0.015	0.003	0.33	LOWEST
MW-1A	09/18/19	0.0004	Lead (DIS)		O	08/26/11-06/19/19	31	23	<0.0003	0.0083	0.157	0.0297	0.27	
MW-1A	09/18/19	0.0009	Uranium (DIS)		O	08/26/11-06/19/19	31	9	0.0009	0.0061	<0.008	0.0031	1.68	LOWEST

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Quarterly Monitoring

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MW-1A	09/18/19	0.018	Aluminum (DIS)		O	08/26/11-06/19/19	31	29	0.009	1.389	33.8	6.037	0.23	
MW-1A	09/18/19	<0.01	Cobalt (DIS)		O	08/26/11-06/19/19	31	0	<0.01	0.01	<0.01	0		HIGHEST
MW-1A	09/18/19	42	Calcium		O	08/26/11-06/19/19	31	31	38	42	45	2	0.00	
MW-1A	09/18/19	0.169	Barium (DIS)		O	08/26/11-06/19/19	31	31	0.125	0.221	1.12	0.209	0.25	
MW-1A	09/18/19	<0.02	Iron (DIS)		O	08/26/11-06/19/19	31	22	<0.02	1.02	26.5	4.74	0.21	LOWEST
MW-1A	09/18/19	17	Magnesium		O	08/26/11-06/19/19	31	31	15	18	21	1	1.00	
MW-1A	09/18/19	<0.005	Manganese (DIS)		O	08/26/11-06/19/19	31	6	<0.001	0.01	0.096	0.018	0.28	
MW-1A	09/18/19	1	Potassium		O	08/26/11-06/19/19	31	24	1	1	6	1	0.00	LOWEST
MW-1A	09/18/19	2	Sodium		O	08/26/11-06/19/19	31	31	2	3	11	3	0.33	LOWEST
MW-1A	09/18/19	0.0944	Strontium (DIS)		O	08/26/11-06/19/19	31	31	0.0949	0.1022	0.12	0.0062	1.26	LOWEST
MW-1A	09/18/19	6.94	SWL	Feet	O	08/26/11-06/19/19	31	31	2.29	6.62	9.82	2.11	0.15	
MW-1A	09/18/19	1	Chloride		O	08/26/11-06/19/19	31	29	1	1	2	0		LOWEST
MW-1A	09/18/19	0.2	Fluoride		O	08/26/11-06/19/19	31	31	0.2	0.2	0.3	0		LOWEST
MW-1A	09/18/19	0.44	N+N		O	08/26/11-06/19/19	31	31	0.18	0.43	0.53	0.06	0.17	
MW-1A	09/18/19	7.34	Field pH	s.u.	O	08/26/11-06/19/19	31	31	6.62	7.25	7.66	0.23	0.39	
MW-1A	09/18/19	342	Field SC	umh	O	08/26/11-06/19/19	31	31	311	341	356	10	0.10	
MW-1A	09/18/19	205	TDS		O	08/26/11-06/19/19	31	31	176	192	209	8	1.62	
MW-1A	09/18/19	170	Alkalinity		O	08/26/11-06/19/19	31	31	160	173	190	6	0.50	
MW-1A	09/18/19	177	Hardness		O	08/26/11-06/19/19	31	31	157	179	191	8	0.25	
MW-1A	09/18/19	108	TSS		O	03/21/13-06/19/19	24	23	<10	192	1380	341	0.25	
MW-1A	09/18/19	9.4	Water Temp	Deg	O	08/26/11-06/19/19	31	31	5.9	7	8	0.5	4.80	HIGHEST
MW-1A	09/18/19	8.86	DO		O	08/26/11-06/19/19	30	30	5.35	10.09	17.56	2.35	0.52	
MW-1A	09/18/19	15	Sulfate		O	08/26/11-06/19/19	31	31	8	11	15	2	2.00	HIGHEST
MW-1A	09/18/19	240.20	EH	Milliv	O	03/21/18-06/19/19	5	5	191.44	266.313	305.70	45.014	0.58	
MW-1B	09/18/19	0.0009	Antimony (DIS)		O	08/26/11-06/21/19	32	22	<0.0005	0.0011	<0.003	0.0009	0.22	
MW-1B	09/18/19	<0.000	Beryllium (DIS)		O	08/26/11-06/21/19	32	0	<0.0008	0.0008	<0.001	0.0001	0.00	LOWEST
MW-1B	09/18/19	<0.000	Cadmium (DIS)		O	08/26/11-06/21/19	32	0	<0.00003	0.00004	<0.00008	0.00002	0.50	LOWEST
MW-1B	09/18/19	<0.01	Chromium (DIS)		O	08/26/11-06/21/19	32	0	<0.001	0.01	<0.01	0		HIGHEST
MW-1B	09/18/19	<0.002	Copper (DIS)		O	08/26/11-06/21/19	32	1	<0.001	0.002	0.005	0.001	0.00	
MW-1B	09/18/19	<0.005	Mercury (DIS)	ug/L	O	08/26/11-06/21/19	32	2	<0.000005	0.0003	<0.005	0.001	4.70	HIGHEST
MW-1B	09/18/19	<0.002	Molybdenum (DIS)		O	08/26/11-06/21/19	32	0	<0.001	0.003	<0.005	0.001	1.00	

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MW-1B	09/18/19	0.01	Nickel (DIS)		O	08/26/11-06/21/19	32	31	<0.001	0.01	0.012	0		
MW-1B	09/18/19	<0.000	Selenium (DIS)		O	08/26/11-06/21/19	32	0	<0.0002	0.0004	<0.001	0.0003	0.67	LOWEST
MW-1B	09/18/19	<0.000	Silver (DIS)		O	08/26/11-06/21/19	32	0	<0.0002	0.0002	<0.0005	0.0001	0.00	LOWEST
MW-1B	09/18/19	0.0117	Thallium (DIS)		O	08/26/11-06/21/19	32	31	<0.0002	0.0122	0.0154	0.0024	0.21	
MW-1B	09/18/19	0.012	Zinc (DIS)		O	08/26/11-06/21/19	32	31	<0.002	0.016	0.033	0.005	0.80	
MW-1B	09/18/19	0.066	Arsenic (DIS)		O	08/26/11-06/21/19	32	31	<0.001	0.06	0.071	0.012	0.50	
MW-1B	09/18/19	<0.000	Lead (DIS)		O	08/26/11-06/21/19	32	8	<0.0003	0.0004	0.0026	0.0004	0.25	LOWEST
MW-1B	09/18/19	<0.000	Uranium (DIS)		O	08/26/11-06/21/19	32	1	<0.0002	0.0055	<0.008	0.0037	1.43	LOWEST
MW-1B	09/18/19	<0.009	Aluminum (DIS)		O	08/26/11-06/21/19	32	10	<0.009	0.016	0.059	0.012	0.58	LOWEST
MW-1B	09/18/19	0.02	Cobalt (DIS)		O	08/26/11-06/21/19	32	31	<0.01	0.03	0.03	0.01	1.00	
MW-1B	09/18/19	61	Calcium		O	08/26/11-06/21/19	32	32	43	58	62	4	0.75	
MW-1B	09/18/19	0.011	Barium (DIS)		O	08/26/11-06/21/19	32	32	0.011	0.016	0.092	0.014	0.36	LOWEST
MW-1B	09/18/19	19	Iron (DIS)		O	08/26/11-06/21/19	32	31	<0.02	21	27.1	5	0.40	
MW-1B	09/18/19	32	Magnesium		O	08/26/11-06/21/19	32	32	17	30	33	3	0.67	
MW-1B	09/18/19	0.076	Manganese (DIS)		O	08/26/11-06/21/19	32	31	<0.005	0.083	0.122	0.018	0.39	
MW-1B	09/18/19	3	Potassium		O	08/26/11-06/21/19	32	31	<1	3	3	0		HIGHEST
MW-1B	09/18/19	3	Sodium		O	08/26/11-06/21/19	32	32	2	4	7	1	1.00	
MW-1B	09/18/19	1.77 L	Strontium (DIS)		O	08/26/11-06/21/19	32	32	0.0894	1.57	1.87	0.29	0.69	
MW-1B	09/18/19	23.56	SWL	Feet	O	08/26/11-06/21/19	31	31	11.95	22.45	24.85	2.21	0.50	
MW-1B	09/18/19	3	Chloride		O	08/26/11-06/21/19	32	27	1	1	3	0		HIGHEST
MW-1B	09/18/19	0.2	Fluoride		O	08/26/11-06/21/19	32	31	<0.1	0.2	0.3 D	0		
MW-1B	09/18/19	0.06	N+N		O	08/26/11-06/21/19	32	19	<0.01	0.06	0.6 D	0.11	0.00	
MW-1B	09/18/19	6.4	Field pH	s.u.	O	08/26/11-06/21/19	32	32	6.02	6.3	7.78	0.3	0.33	
MW-1B	09/18/19	611	Field SC	umh	O	08/26/11-06/21/19	32	32	337	592	661	53	0.36	
MW-1B	09/18/19	429	TDS		O	08/26/11-06/21/19	32	32	187	403	436	45	0.58	
MW-1B	09/18/19	110	Alkalinity		O	08/26/11-06/21/19	32	32	49	86	190 H	23	1.04	
MW-1B	09/18/19	282	Hardness		O	08/26/11-06/21/19	32	32	176	268	291	22	0.64	
MW-1B	09/18/19	<10	TSS		O	03/21/13-06/21/19	25	13	<10	41	402 J	81	0.38	LOWEST
MW-1B	09/18/19	8.6	Water Temp	Deg	O	08/26/11-06/21/19	32	32	4.4	7.5	8.8	0.8	1.38	
MW-1B	09/18/19	0.09	DO		O	08/26/11-06/21/19	31	31	0.01	0.7	7.72	1.43	0.43	
MW-1B	09/18/19	219	Sulfate		O	08/26/11-06/21/19	32	32	6	215	247	40	0.10	

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MW-1B	09/18/19	196.13	EH	Milliv	O	03/21/18-06/21/19	6	6	182.84	221.097	271.05	30.222	0.83	
MW-20	09/19/19	<0.000	Antimony (DIS)		O	01/24/18-06/20/19	6	0	<0.0005	0.0005	<0.0005	0		HIGHEST
MW-20	09/19/19	<0.000	Beryllium (DIS)		O	01/24/18-06/20/19	6	0	<0.0008	0.0008	<0.0008	0		HIGHEST
MW-20	09/19/19	<0.000	Cadmium (DIS)		O	01/24/18-06/20/19	6	0	<0.00003	0.00003	<0.00003	0		HIGHEST
MW-20	09/19/19	<0.01	Chromium (DIS)		O	01/24/18-06/20/19	6	0	<0.01	0.01	<0.01	0		HIGHEST
MW-20	09/19/19	<0.002	Copper (DIS)		O	01/24/18-06/20/19	6	0	<0.002	0.002	<0.002	0		HIGHEST
MW-20	09/19/19	<0.005	Mercury (DIS)	ug/L	O	01/24/18-06/20/19	6	0	<0.000005	0.001	<0.005	0.002	2.00	HIGHEST
MW-20	09/19/19	<0.002	Molybdenum (DIS)		O	01/24/18-06/20/19	6	0	<0.002	0.002	<0.002	0		HIGHEST
MW-20	09/19/19	<0.001	Nickel (DIS)		O	01/24/18-06/20/19	6	3	<0.001	0.001	<0.001	0		HIGHEST
MW-20	09/19/19	0.0002	Selenium (DIS)		O	01/24/18-06/20/19	6	5	0.0002	0.0002	0.0003	0.0001	0.00	LOWEST
MW-20	09/19/19	<0.000	Silver (DIS)		O	01/24/18-06/20/19	6	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-20	09/19/19	<0.000	Thallium (DIS)		O	01/24/18-06/20/19	6	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-20	09/19/19	<0.002	Zinc (DIS)		O	01/24/18-06/20/19	6	1	<0.002	0.002	0.004	0.001	0.00	LOWEST
MW-20	09/19/19	<0.001	Arsenic (DIS)		O	01/24/18-06/20/19	6	0	<0.001	0.001	<0.001	0		HIGHEST
MW-20	09/19/19	<0.000	Lead (DIS)		O	01/24/18-06/20/19	6	0	<0.0003	0.0003	<0.0003	0		HIGHEST
MW-20	09/19/19	0.0005	Uranium (DIS)		O	01/24/18-06/20/19	6	2	0.0005	0.0055	<0.008	0.0039	1.28	LOWEST
MW-20	09/19/19	<0.009	Aluminum (DIS)		O	01/24/18-06/20/19	6	3	<0.009	0.016	0.045	0.014	0.50	LOWEST
MW-20	09/19/19	<0.01	Cobalt (DIS)		O	01/24/18-06/20/19	6	0	<0.01	0.01	<0.01	0		HIGHEST
MW-20	09/19/19	46	Calcium		O	01/24/18-06/20/19	6	6	43	47	51	3	0.33	
MW-20	09/19/19	0.188	Barium (DIS)		O	01/24/18-06/20/19	6	6	0.175	0.192	0.207	0.014	0.29	
MW-20	09/19/19	<0.02	Iron (DIS)		O	01/24/18-06/20/19	6	2	<0.02	0.02	0.04	0.01	0.00	LOWEST
MW-20	09/19/19	22	Magnesium		O	01/24/18-06/20/19	6	6	21	23	25	1	1.00	
MW-20	09/19/19	<0.005	Manganese (DIS)		O	01/24/18-06/20/19	6	0	<0.005	0.005	<0.005	0		HIGHEST
MW-20	09/19/19	1	Potassium		O	01/24/18-06/20/19	6	3	1	1	1	0		HIGHEST
MW-20	09/19/19	1	Sodium		O	01/24/18-06/20/19	6	6	1	1	2	0		LOWEST
MW-20	09/19/19	0.0677	Strontium (DIS)		O	01/24/18-06/20/19	6	6	0.0591	0.0703	0.078	0.0065	0.40	
MW-20	09/19/19	21.5	SWL	Feet	O	01/24/18-06/20/19	6	6	18.12	22.6	25.93	2.9	0.38	
MW-20	09/19/19	<1	Chloride		O	01/24/18-06/20/19	6	0	<1	1	<1	0		HIGHEST
MW-20	09/19/19	<0.1	Fluoride		O	01/24/18-06/20/19	6	3	<0.1	0.1	<0.1	0		HIGHEST
MW-20	09/19/19	0.33	N+N		O	01/24/18-06/20/19	6	6	0.28	0.33	0.4	0.05	0.00	
MW-20	09/19/19	7.74	Field pH	s.u.	O	01/24/18-06/20/19	6	6	7.4	7.69	7.81	0.15	0.33	

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Data Comparison Summary

Report Date: November 7, 2019

Quarterly Monitoring

STATION	SAMPLE DATE	RESULT	PARAMETER		QC Code	COMPARISON PERIOD	N	# OF DET	MIN	MEAN:	MAX	STDDARD DEVIATION	STD DEVS FROM MEAN	RELATION TO DATABASE PERIOD
		umhos/cm							umhos/cm	umhos/cm	umhos/cm			
MW-20	09/19/19	392	Field SC	umh	O	01/24/18-06/20/19	6	6	364	390	410	17	0.12	
MW-20	09/19/19	216	TDS		O	01/24/18-06/20/19	6	6	198 D	213	225	10	0.30	
MW-20	09/19/19	210	Alkalinity		O	01/24/18-06/20/19	6	6	190	228	290	41	0.44	
MW-20	09/19/19	207	Hardness		O	01/24/18-06/20/19	6	6	194	213	229	14	0.43	
MW-20	09/19/19	77	TSS		O	01/24/18-06/20/19	6	6	19	255	603 J	232	0.77	
MW-20	09/19/19	8	Water Temp	Deg	O	01/24/18-06/20/19	6	6	6.7	8	8.1	1	0.00	
MW-20	09/19/19	9.12	DO		O	01/24/18-06/20/19	6	6	7.06	8.61	9.51	1.1	0.46	
MW-20	09/19/19	8	Sulfate		O	01/24/18-06/20/19	6	6	7	9	10	1	1.00	
MW-20	09/19/19	255.44	EH	Milliv	O	03/20/18-06/20/19	5	5	244.474	262.82	278.77	14.41	0.51	
MW-2A	09/18/19	<0.000	Antimony (DIS)		O	11/30/11-06/17/19	29	0	<0.0005	0.0008	<0.003	0.0009	0.33	LOWEST
MW-2A	09/18/19	<0.000	Beryllium (DIS)		O	11/30/11-06/17/19	29	0	<0.0008	0.0008	<0.001	0.0001	0.00	LOWEST
MW-2A	09/18/19	<0.000	Cadmium (DIS)		O	11/30/11-06/17/19	29	0	<0.00003	0.00004	<0.00008	0.00002	0.50	LOWEST
MW-2A	09/18/19	<0.01	Chromium (DIS)		O	11/30/11-06/17/19	29	0	<0.001	0.01	<0.01	0		HIGHEST
MW-2A	09/18/19	<0.002	Copper (DIS)		O	11/30/11-06/17/19	29	1	<0.001	0.002	<0.002	0		HIGHEST
MW-2A	09/18/19	<0.005	Mercury (DIS)	ug/L	O	11/30/11-06/17/19	29	2	<0.000005	0.0002	<0.005	0.001	4.80	HIGHEST
MW-2A	09/18/19	<0.002	Molybdenum (DIS)		O	11/30/11-06/17/19	29	0	<0.002	0.003	<0.005	0.001	1.00	LOWEST
MW-2A	09/18/19	<0.001	Nickel (DIS)		O	11/30/11-06/17/19	29	0	<0.001	0.002	<0.01	0.003	0.33	LOWEST
MW-2A	09/18/19	0.0008	Selenium (DIS)		O	11/30/11-06/17/19	29	23	<0.0002	0.0011	0.0065	0.0011	0.27	
MW-2A	09/18/19	<0.000	Silver (DIS)		O	11/30/11-06/17/19	29	0	<0.0002	0.0002	<0.0005	0.0001	0.00	LOWEST
MW-2A	09/18/19	<0.000	Thallium (DIS)		O	11/30/11-06/17/19	29	26	0.0002	0.0004	0.0037	0.0007	0.29	LOWEST
MW-2A	09/18/19	<0.002	Zinc (DIS)		O	11/30/11-06/17/19	29	0	<0.002	0.003	<0.01	0.003	0.33	LOWEST
MW-2A	09/18/19	<0.001	Arsenic (DIS)		O	11/30/11-06/17/19	29	2	<0.001	0.001	<0.003	0.001	0.00	LOWEST
MW-2A	09/18/19	<0.000	Lead (DIS)		O	11/30/11-06/17/19	29	2	<0.0003	0.0003	0.0009	0.0001	0.00	LOWEST
MW-2A	09/18/19	0.0005	Uranium (DIS)		O	11/30/11-06/17/19	29	7	0.0004	0.0062	<0.008	0.0033	1.73	
MW-2A	09/18/19	<0.009	Aluminum (DIS)		O	11/30/11-06/17/19	29	1	<0.009	0.013	0.05	0.01	0.40	LOWEST
MW-2A	09/18/19	<0.01	Cobalt (DIS)		O	11/30/11-06/17/19	29	0	<0.01	0.01	<0.01	0		HIGHEST
MW-2A	09/18/19	42	Calcium		O	11/30/11-06/17/19	29	29	40	43	56	3	0.33	
MW-2A	09/18/19	0.083	Barium (DIS)		O	11/30/11-06/17/19	29	29	0.040	0.082	0.097	0.009	0.11	
MW-2A	09/18/19	<0.02	Iron (DIS)		O	11/30/11-06/17/19	29	4	<0.02	0.03	0.18	0.03	0.33	LOWEST
MW-2A	09/18/19	22	Magnesium		O	11/30/11-06/17/19	29	29	22	23	31	2	0.50	LOWEST
MW-2A	09/18/19	<0.005	Manganese (DIS)		O	11/30/11-06/17/19	29	5	<0.005	0.015	0.235	0.043	0.23	LOWEST

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Data Comparison Summary

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Quarterly Monitoring

STATION	SAMPLE DATE	RESULT mg/L	PARAMETER		QC Code	COMPARISON PERIOD	N	# OF DET	MIN mg/L	MEAN: mg/L	MAX mg/L	STDDARD DEVIATION	STD DEVS FROM MEAN	RELATION TO DATABASE PERIOD
MW-2A	09/18/19	1	Potassium		O	11/30/11-06/17/19	29	29	1	1	2	0		LOWEST
MW-2A	09/18/19	2	Sodium		O	11/30/11-06/17/19	29	29	2	3	3	0		LOWEST
MW-2A	09/18/19	0.0884	Strontium (DIS)		O	11/30/11-06/17/19	29	25	0.0836	0.0929	0.108	0.0052	0.87	
MW-2A	09/18/19	41.85	SWL	Feet	O	11/30/11-06/17/19	29	29	40.81	42.18	43.18	0.42	0.79	
MW-2A	09/18/19	1	Chloride		O	11/30/11-06/17/19	29	28	1	1	2	0		LOWEST
MW-2A	09/18/19	0.3	Fluoride		O	11/30/11-06/17/19	29	29	0.3	0.3	0.4	0.1	0.00	LOWEST
MW-2A	09/18/19	0.23	N+N		O	11/30/11-06/17/19	29	28	<0.01	0.2	0.24	0.04	0.75	
MW-2A	09/18/19	7.47	Field pH	s.u.	O	11/30/11-06/17/19	29	29	7.07	7.3	7.52	0.13	1.31	
MW-2A	09/18/19	385	Field SC	umh	O	11/30/11-06/17/19	29	29	353	381	412.3	13	0.31	
MW-2A	09/18/19	210	TDS		O	11/30/11-06/17/19	29	29	191	210	279	15	0.00	
MW-2A	09/18/19	190	Alkalinity		O	11/30/11-06/17/19	29	29	180	191	220	9	0.11	
MW-2A	09/18/19	198	Hardness		O	11/30/11-06/17/19	29	29	190	204	268	13	0.46	
MW-2A	09/18/19	<10	TSS		O	03/21/13-06/17/19	23	6	5	10	14 J	2	0.00	
MW-2A	09/18/19	7.9	Water Temp	Deg	O	11/30/11-06/17/19	29	29	6.3	7.1	8.07	0.5	1.60	
MW-2A	09/18/19	7.74	DO		O	11/30/11-06/17/19	29	29	4.3	7.39	12.96	1.75	0.20	
MW-2A	09/18/19	20	Sulfate		O	11/30/11-06/17/19	29	29	15	20	51	6	0.00	
MW-2A	09/18/19	241.75	EH	Milliv	O	03/20/18-06/17/19	5	5	255.9888	274.054	289.19	14.119	2.29	LOWEST
MW-2B	09/18/19	<0.000	Antimony (DIS)		O	11/30/11-06/17/19	29	0	<0.0005	0.0008	<0.003	0.0009	0.33	LOWEST
MW-2B	09/18/19	<0.000	Beryllium (DIS)		O	11/30/11-06/17/19	29	0	<0.0008	0.0008	<0.001	0.0001	0.00	LOWEST
MW-2B	09/18/19	<0.000	Cadmium (DIS)		O	11/30/11-06/17/19	29	0	<0.00003	0.00004	<0.00008	0.00002	0.50	LOWEST
MW-2B	09/18/19	<0.01	Chromium (DIS)		O	11/30/11-06/17/19	29	0	<0.001	0.01	<0.01	0		HIGHEST
MW-2B	09/18/19	<0.002	Copper (DIS)		O	11/30/11-06/17/19	29	0	<0.001	0.002	<0.002	0		HIGHEST
MW-2B	09/18/19	<0.005	Mercury (DIS)	ug/L	O	11/30/11-06/17/19	29	1	<0.000005	0.0002	<0.005	0.001	4.80	HIGHEST
MW-2B	09/18/19	<0.002	Molybdenum (DIS)		O	11/30/11-06/17/19	29	0	<0.002	0.003	<0.005	0.001	1.00	LOWEST
MW-2B	09/18/19	<0.001	Nickel (DIS)		O	11/30/11-06/17/19	29	0	<0.001	0.002	<0.01	0.003	0.33	LOWEST
MW-2B	09/18/19	0.005	Selenium (DIS)		O	11/30/11-06/17/19	29	24	0.0002	0.002	0.0051	0.002	1.50	
MW-2B	09/18/19	<0.000	Silver (DIS)		O	11/30/11-06/17/19	29	0	<0.0002	0.0002	<0.0005	0.0001	0.00	LOWEST
MW-2B	09/18/19	0.0034	Thallium (DIS)		O	11/30/11-06/17/19	29	29	0.0003	0.0034	0.004	0.0007	0.00	
MW-2B	09/18/19	<0.002	Zinc (DIS)		O	11/30/11-06/17/19	29	0	<0.002	0.003	<0.01	0.003	0.33	LOWEST
MW-2B	09/18/19	0.003	Arsenic (DIS)		O	11/30/11-06/17/19	29	27	<0.001	0.004	0.018	0.003	0.33	
MW-2B	09/18/19	<0.000	Lead (DIS)		O	11/30/11-06/17/19	29	0	<0.0003	0.0003	<0.0005	0.0001	0.00	LOWEST

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MW-2B	09/18/19	0.0021	Uranium (DIS)		O	11/30/11-06/17/19	29	7	0.002	0.0066	<0.008	0.0025	1.80	
MW-2B	09/18/19	<0.009	Aluminum (DIS)		O	11/30/11-06/17/19	29	1	<0.009	0.012	<0.03	0.007	0.43	LOWEST
MW-2B	09/18/19	<0.01	Cobalt (DIS)		O	11/30/11-06/17/19	29	0	<0.01	0.01	<0.01	0		HIGHEST
MW-2B	09/18/19	47	Calcium		O	11/30/11-06/17/19	29	29	43	53	58	3	2.00	
MW-2B	09/18/19	0.041	Barium (DIS)		O	11/30/11-06/17/19	29	29	0.028	0.043	0.082	0.008	0.25	
MW-2B	09/18/19	<0.02	Iron (DIS)		O	11/30/11-06/17/19	29	29	0.02	0.11	1.08	0.2	0.45	LOWEST
MW-2B	09/18/19	25	Magnesium		O	11/30/11-06/17/19	29	29	23	29	33	2	2.00	
MW-2B	09/18/19	0.005	Manganese (DIS)		O	11/30/11-06/17/19	29	28	<0.005	0.012	0.026	0.005	1.40	LOWEST
MW-2B	09/18/19	1	Potassium		O	11/30/11-06/17/19	29	29	1	2	2	0		LOWEST
MW-2B	09/18/19	3	Sodium		O	11/30/11-06/17/19	29	29	2	3	3	0		HIGHEST
MW-2B	09/18/19	0.0862	Strontium (DIS)		O	11/30/11-06/17/19	29	28	0.0903	0.0983	0.106	0.0041	2.95	LOWEST
MW-2B	09/18/19	41.82	SWL	Feet	O	11/30/11-06/17/19	29	29	40.77	42.01	43.14	0.45	0.42	
MW-2B	09/18/19	1	Chloride		O	11/30/11-06/17/19	29	22	1	1	2	0		LOWEST
MW-2B	09/18/19	0.3	Fluoride		O	11/30/11-06/17/19	29	29	0.3	0.4	0.4	0		LOWEST
MW-2B	09/18/19	<0.01	N+N		O	11/30/11-06/17/19	29	1	<0.01	0.03	<0.5	0.09	0.22	LOWEST
MW-2B	09/18/19	7.31	Field pH	s.u.	O	11/30/11-06/17/19	29	29	6.98	7.26	7.51	0.11	0.45	
MW-2B	09/18/19	419	Field SC	umh	O	11/30/11-06/17/19	29	29	192	450	525	57	0.54	
MW-2B	09/18/19	232	TDS		O	11/30/11-06/17/19	29	29	208	256	292	17	1.41	
MW-2B	09/18/19	200	Alkalinity		O	11/30/11-06/17/19	29	29	180	216	260	15	1.07	
MW-2B	09/18/19	222	Hardness		O	11/30/11-06/17/19	29	29	202	251	280	16	1.81	
MW-2B	09/18/19	<10	TSS		O	03/21/13-06/17/19	23	1	<4	10	17 J	2	0.00	
MW-2B	09/18/19	8	Water Temp	Deg	O	11/30/11-06/17/19	29	29	3	7	7.9	1	1.00	HIGHEST
MW-2B	09/18/19	0.38	DO		O	11/30/11-06/17/19	29	29	0.08	0.81	10.26	1.85	0.23	
MW-2B	09/18/19	34	Sulfate		O	11/30/11-06/17/19	29	29	23	40	51	5	1.20	
MW-2B	09/18/19	238.14	EH	Milliv	O	03/20/18-06/17/19	5	5	230.66	262.89	299.79	26.11	0.95	
MW-3	09/19/19	<0.000	Antimony (DIS)		O	11/30/11-06/17/19	29	0	<0.0005	0.0008	<0.003	0.0009	0.33	LOWEST
MW-3	09/19/19	<0.000	Beryllium (DIS)		O	11/30/11-06/17/19	29	0	<0.0008	0.0008	<0.001	0.0001	0.00	LOWEST
MW-3	09/19/19	<0.000	Cadmium (DIS)		O	11/30/11-06/17/19	29	0	<0.00003	0.00004	<0.00008	0.00002	0.50	LOWEST
MW-3	09/19/19	<0.01	Chromium (DIS)		O	11/30/11-06/17/19	29	0	<0.001	0.01	<0.01	0		HIGHEST
MW-3	09/19/19	<0.002	Copper (DIS)		O	11/30/11-06/17/19	29	0	<0.001	0.002	<0.002	0		HIGHEST
MW-3	09/19/19	<0.005	Mercury (DIS)	ug/L	O	11/30/11-06/17/19	29	1	<0.000005	0.0002	<0.005	0.001	4.80	HIGHEST

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Data Comparison Summary

Report Date: November 7, 2019

Quarterly Monitoring

STATION	SAMPLE DATE	RESULT mg/L	PARAMETER		QC Code	COMPARISON PERIOD	N	# OF DET	MIN mg/L	MEAN: mg/L	MAX mg/L	STDDARD DEVIATION	STD DEVS FROM MEAN	RELATION TO DATABASE PERIOD
MW-3	09/19/19	<0.002	Molybdenum (DIS)		O	11/30/11-06/17/19	29	1	0.001	0.002	<0.005	0.001	0.00	
MW-3	09/19/19	<0.001	Nickel (DIS)		O	11/30/11-06/17/19	29	8	0.001	0.002	<0.01	0.003	0.33	LOWEST
MW-3	09/19/19	<0.000	Selenium (DIS)		O	11/30/11-06/17/19	29	0	<0.0002	0.0003	<0.001	0.0003	0.33	LOWEST
MW-3	09/19/19	<0.000	Silver (DIS)		O	11/30/11-06/17/19	29	0	<0.0002	0.0002	<0.0005	0.0001	0.00	LOWEST
MW-3	09/19/19	0.0003	Thallium (DIS)		O	11/30/11-06/17/19	29	29	0.0003	0.0004	0.0006	0.0001	1.00	LOWEST
MW-3	09/19/19	<0.002	Zinc (DIS)		O	11/30/11-06/17/19	29	2	<0.002	0.004	<0.01	0.003	0.67	LOWEST
MW-3	09/19/19	0.064	Arsenic (DIS)		O	11/30/11-06/17/19	29	29	0.062	0.068	0.08	0.004	1.00	
MW-3	09/19/19	<0.000	Lead (DIS)		O	11/30/11-06/17/19	29	0	<0.0003	0.0003	<0.0005	0.0001	0.00	LOWEST
MW-3	09/19/19	0.001	Uranium (DIS)		O	11/30/11-06/17/19	29	8	0.001	0.006	<0.008	0.003	1.67	LOWEST
MW-3	09/19/19	<0.009	Aluminum (DIS)		O	11/30/11-06/17/19	29	0	<0.009	0.012	<0.03	0.007	0.43	LOWEST
MW-3	09/19/19	<0.01	Cobalt (DIS)		O	11/30/11-06/17/19	29	0	<0.01	0.01	<0.01	0		HIGHEST
MW-3	09/19/19	72	Calcium		O	11/30/11-06/17/19	29	29	67	81	124	10	0.90	
MW-3	09/19/19	0.011	Barium (DIS)		O	11/30/11-06/17/19	29	29	0.01	0.011	0.014	0.001	0.00	
MW-3	09/19/19	0.99	Iron (DIS)		O	11/30/11-06/17/19	29	29	1	1.1	1.23	0.08	1.38	LOWEST
MW-3	09/19/19	48	Magnesium		O	11/30/11-06/17/19	29	29	47	53	58	3	1.67	
MW-3	09/19/19	0.014	Manganese (DIS)		O	11/30/11-06/17/19	29	29	0.015	0.023	0.035	0.005	1.80	LOWEST
MW-3	09/19/19	3	Potassium		O	11/30/11-06/17/19	29	29	3	3	4	0		LOWEST
MW-3	09/19/19	15	Sodium		O	11/30/11-06/17/19	29	29	14	16	18	1	1.00	
MW-3	09/19/19	13.3 L	Strontium (DIS)		O	11/30/11-06/17/19	29	29	12.6	14.1	16.2	0.9	0.89	
MW-3	09/19/19	39.5	SWL	Feet	O	11/30/11-06/17/19	29	29	26.23	38.8	46.13	5.7	0.12	
MW-3	09/19/19	1	Chloride		O	11/30/11-06/17/19	29	29	1	1	2	0		LOWEST
MW-3	09/19/19	0.7	Fluoride		O	11/30/11-06/17/19	29	29	0.6	0.8	0.8	0.1	1.00	
MW-3	09/19/19	<0.01	N+N		O	11/30/11-06/17/19	29	3	<0.01	0.01	0.02	0		LOWEST
MW-3	09/19/19	7.15	Field pH	s.u.	O	11/30/11-06/17/19	29	29	6.77	7.08	7.31	0.11	0.64	
MW-3	09/19/19	788	Field SC	umh	O	11/30/11-06/17/19	29	29	727	823	883	41	0.85	
MW-3	09/19/19	548	TDS		O	11/30/11-06/17/19	29	29	508	568	607	27	0.74	
MW-3	09/19/19	220	Alkalinity		O	11/30/11-06/17/19	29	29	210	217	230	6	0.50	
MW-3	09/19/19	379	Hardness		O	11/30/11-06/17/19	29	29	361	419	523	33	1.21	
MW-3	09/19/19	<10	TSS		O	06/03/13-06/17/19	23	0	<4	10	<10	1	0.00	HIGHEST
MW-3	09/19/19	9.8	Water Temp	Deg	O	11/30/11-06/17/19	29	29	8.1	9.3	10.3	0.6	0.83	
MW-3	09/19/19	0.07	DO		O	11/30/11-06/17/19	29	29	0	0.32	2.09	0.43	0.58	

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Quarterly Monitoring

STATION	SAMPLE DATE	RESULT	PARAMETER		QC Code	COMPARISON PERIOD	N	# OF DET	MIN	MEAN:	MAX	STDDARD DEVIATION	STD DEVS FROM MEAN	RELATION TO DATABASE PERIOD
		mg/L							mg/L	mg/L	mg/L			
MW-3	09/19/19	218	Sulfate		O	11/30/11-06/17/19	29	29	213	250	280	23	1.39	
MW-3	09/19/19	159.23	EH	Milliv	O	03/19/18-06/17/19	5	5	152.22	181.309	222.03	26.996	0.82	
MW-4A	09/20/19	<0.000	Antimony (DIS)		O	05/31/12-06/20/19	27	0	<0.0005	0.0007	<0.003	0.0007	0.29	LOWEST
MW-4A	09/20/19	<0.000	Beryllium (DIS)		O	05/31/12-06/20/19	27	0	<0.0008	0.0008	<0.001	0.0001	0.00	LOWEST
MW-4A	09/20/19	<0.000	Cadmium (DIS)		O	05/31/12-06/20/19	27	0	<0.00003	0.00003	<0.00008	0.00001	0.00	LOWEST
MW-4A	09/20/19	<0.01	Chromium (DIS)		O	05/31/12-06/20/19	27	0	<0.001	0.01	<0.01	0		HIGHEST
MW-4A	09/20/19	<0.002	Copper (DIS)		O	05/31/12-06/20/19	27	0	<0.001	0.002	<0.002	0		HIGHEST
MW-4A	09/20/19	<0.005	Mercury (DIS)	ug/L	O	05/31/12-06/20/19	27	1	<0.000005	0.0002	<0.005	0.001	4.80	HIGHEST
MW-4A	09/20/19	<0.002	Molybdenum (DIS)		O	05/31/12-06/20/19	27	0	<0.001	0.002	<0.005	0.001	0.00	
MW-4A	09/20/19	0.001	Nickel (DIS)		O	05/31/12-06/20/19	27	0	<0.001	0.002	<0.01	0.002	0.50	LOWEST
MW-4A	09/20/19	<0.000	Selenium (DIS)		O	05/31/12-06/20/19	27	0	<0.0002	0.0003	<0.001	0.0003	0.33	LOWEST
MW-4A	09/20/19	<0.000	Silver (DIS)		O	05/31/12-06/20/19	27	0	<0.0002	0.0002	<0.0005	0.0001	0.00	LOWEST
MW-4A	09/20/19	<0.000	Thallium (DIS)		O	05/31/12-06/20/19	27	1	<0.0002	0.0002	0.0003	0		LOWEST
MW-4A	09/20/19	<0.002	Zinc (DIS)		O	05/31/12-06/20/19	27	1	<0.002	0.003	<0.01	0.003	0.33	LOWEST
MW-4A	09/20/19	<0.001	Arsenic (DIS)		O	05/31/12-06/20/19	27	0	<0.001	0.001	<0.003	0.001	0.00	LOWEST
MW-4A	09/20/19	<0.000	Lead (DIS)		O	05/31/12-06/20/19	27	1	<0.0003	0.0003	<0.0005	0.0001	0.00	LOWEST
MW-4A	09/20/19	0.0004	Uranium (DIS)		O	05/31/12-06/20/19	27	6	0.0004	0.0063	<0.008	0.0032	1.84	LOWEST
MW-4A	09/20/19	<0.009	Aluminum (DIS)		O	05/31/12-06/20/19	27	3	<0.009	0.014	0.087	0.016	0.31	LOWEST
MW-4A	09/20/19	<0.01	Cobalt (DIS)		O	05/31/12-06/20/19	27	0	<0.01	0.01	<0.01	0		HIGHEST
MW-4A	09/20/19	84	Calcium		O	05/31/12-06/20/19	27	27	70	76	80	3	2.67	HIGHEST
MW-4A	09/20/19	0.21	Barium (DIS)		O	05/31/12-06/20/19	27	27	0.170	0.18	0.203	0.01	3.00	HIGHEST
MW-4A	09/20/19	0.08	Iron (DIS)		O	05/31/12-06/20/19	27	20	<0.02	0.04	0.16	0.03	1.33	
MW-4A	09/20/19	22	Magnesium		O	05/31/12-06/20/19	27	27	19	21	23	1	1.00	
MW-4A	09/20/19	0.386	Manganese (DIS)		O	05/31/12-06/20/19	27	27	0.057	0.207	0.329	0.06	2.98	HIGHEST
MW-4A	09/20/19	2	Potassium		O	05/31/12-06/20/19	27	27	1	1	2	0		HIGHEST
MW-4A	09/20/19	3	Sodium		O	05/31/12-06/20/19	27	27	2	3	3	0		HIGHEST
MW-4A	09/20/19	0.187	Strontium (DIS)		O	05/31/12-06/20/19	27	27	0.163	0.172	0.2	0.009	1.67	
MW-4A	09/20/19	4.43	SWL	Feet	O	05/31/12-06/20/19	27	27	3.36	4.84	6.02	0.68	0.60	
MW-4A	09/20/19	5	Chloride		O	05/31/12-06/20/19	27	27	2	3	4	1	2.00	HIGHEST
MW-4A	09/20/19	0.1	Fluoride		O	05/31/12-06/20/19	27	27	0.1	0.1	0.2	0.1	0.00	LOWEST
MW-4A	09/20/19	<0.01	N+N		O	05/31/12-06/20/19	27	2	<0.01	0.01	0.02	0		LOWEST

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Quarterly Monitoring

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MW-4A	09/20/19	7.19	Field pH	s.u.	O	05/31/12-06/20/19	27	27	6.24	7.23	7.53	0.26	0.15	
MW-4A	09/20/19	569	Field SC	umh	O	05/31/12-06/20/19	27	27	481	510	551	19	3.11	HIGHEST
MW-4A	09/20/19	328	TDS		O	05/31/12-06/20/19	27	27	270	287	311	11	3.73	HIGHEST
MW-4A	09/20/19	300	Alkalinity		O	05/31/12-06/20/19	27	27	240	267	290	12	2.75	HIGHEST
MW-4A	09/20/19	301	Hardness		O	05/31/12-06/20/19	27	27	253	277	292	10	2.40	HIGHEST
MW-4A	09/20/19	<10	TSS		O	03/21/13-06/20/19	23	1	<4	10	23	3	0.00	
MW-4A	09/20/19	9.2	Water Temp	Deg	O	05/31/12-06/20/19	27	27	4.3	6.3	8.8	1.5	1.93	HIGHEST
MW-4A	09/20/19	0.17	DO		O	05/31/12-06/20/19	27	26	0.01	0.88	3.57	0.87	0.82	
MW-4A	09/20/19	15	Sulfate		O	05/31/12-06/20/19	27	27	8	14	21	3	0.33	
MW-4A	09/20/19	213.43	EH	Milliv	O	03/21/18-06/20/19	5	5	-380.47	117.824	287.43	280.105	0.34	
MW-4B	09/20/19	<0.000	Antimony (DIS)		O	05/31/12-06/20/19	27	0	<0.0005	0.0007	<0.003	0.0007	0.29	LOWEST
MW-4B	09/20/19	<0.000	Beryllium (DIS)		O	05/31/12-06/20/19	27	0	<0.0008	0.0008	<0.001	0.0001	0.00	LOWEST
MW-4B	09/20/19	<0.000	Cadmium (DIS)		O	05/31/12-06/20/19	27	0	<0.00003	0.00003	<0.00008	0.00001	0.00	LOWEST
MW-4B	09/20/19	<0.01	Chromium (DIS)		O	05/31/12-06/20/19	27	0	<0.001	0.01	<0.01	0		HIGHEST
MW-4B	09/20/19	<0.002	Copper (DIS)		O	05/31/12-06/20/19	27	0	<0.001	0.002	<0.002	0		HIGHEST
MW-4B	09/20/19	<0.005	Mercury (DIS)	ug/L	O	05/31/12-06/20/19	27	1	<0.000005	0.0002	<0.005	0.001	4.80	HIGHEST
MW-4B	09/20/19	<0.002	Molybdenum (DIS)		O	05/31/12-06/20/19	27	0	<0.001	0.002	<0.005	0.001	0.00	
MW-4B	09/20/19	<0.001	Nickel (DIS)		O	05/31/12-06/20/19	27	0	<0.001	0.002	<0.01	0.002	0.50	LOWEST
MW-4B	09/20/19	<0.000	Selenium (DIS)		O	05/31/12-06/20/19	27	0	<0.0002	0.001	<0.02	0.0038	0.21	LOWEST
MW-4B	09/20/19	<0.000	Silver (DIS)		O	05/31/12-06/20/19	27	0	<0.0002	0.0002	<0.0005	0.0001	0.00	LOWEST
MW-4B	09/20/19	<0.000	Thallium (DIS)		O	05/31/12-06/20/19	27	3	<0.0002	0.0002	0.0004	0		LOWEST
MW-4B	09/20/19	<0.002	Zinc (DIS)		O	05/31/12-06/20/19	27	0	<0.002	0.003	<0.01	0.002	0.50	LOWEST
MW-4B	09/20/19	<0.001	Arsenic (DIS)		O	05/31/12-06/20/19	27	0	<0.001	0.001	<0.003	0.001	0.00	LOWEST
MW-4B	09/20/19	<0.000	Lead (DIS)		O	05/31/12-06/20/19	27	0	<0.0003	0.0003	<0.0005	0.0001	0.00	LOWEST
MW-4B	09/20/19	0.0006	Uranium (DIS)		O	05/31/12-06/20/19	27	6	0.0006	0.0064	<0.008	0.0031	1.87	LOWEST
MW-4B	09/20/19	<0.009	Aluminum (DIS)		O	05/31/12-06/20/19	27	1	<0.009	0.011	<0.03	0.006	0.33	LOWEST
MW-4B	09/20/19	<0.01	Cobalt (DIS)		O	05/31/12-06/20/19	27	0	<0.01	0.01	<0.01	0		HIGHEST
MW-4B	09/20/19	61	Calcium		O	05/31/12-06/20/19	27	27	58	65	70	3	1.33	
MW-4B	09/20/19	0.125	Barium (DIS)		O	05/31/12-06/20/19	27	27	0.117	0.128	0.147	0.007	0.43	
MW-4B	09/20/19	<0.02	Iron (DIS)		O	05/31/12-06/20/19	27	0	<0.02	0.02	<0.03	0		LOWEST
MW-4B	09/20/19	19	Magnesium		O	05/31/12-06/20/19	27	27	18	21	23	1	2.00	

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MW-4B	09/20/19	<0.005	Manganese (DIS)		O	05/31/12-06/20/19	27	2	0.002	0.005	0.006	0.001	0.00	
MW-4B	09/20/19	1	Potassium		O	05/31/12-06/20/19	27	27	1	1	2	0		LOWEST
MW-4B	09/20/19	2	Sodium		O	05/31/12-06/20/19	27	27	2	2	3	0		LOWEST
MW-4B	09/20/19	0.164	Strontium (DIS)		O	05/31/12-06/20/19	27	27	0.161	0.175	0.2	0.01	1.10	
MW-4B	09/20/19	4.05	SWL	Feet	O	05/31/12-06/20/19	27	27	3.02	4.45	7.26	0.85	0.47	
MW-4B	09/20/19	2	Chloride		O	05/31/12-06/20/19	27	27	1	2	2	0		HIGHEST
MW-4B	09/20/19	0.1	Fluoride		O	05/31/12-06/20/19	27	27	0.1	0.1	0.2	0		LOWEST
MW-4B	09/20/19	0.04	N+N		O	05/31/12-06/20/19	27	21	<0.01	0.04	0.07	0.02	0.00	
MW-4B	09/20/19	7.56	Field pH	s.u.	O	05/31/12-06/20/19	27	27	6.84	7.46	7.76	0.21	0.48	
MW-4B	09/20/19	449	Field SC	umh	O	05/31/12-06/20/19	27	27	419	457	510	22	0.36	
MW-4B	09/20/19	250	TDS		O	05/31/12-06/20/19	27	27	231	251	275	11	0.09	
MW-4B	09/20/19	230	Alkalinity		O	05/31/12-06/20/19	27	27	220	239	270	14	0.64	
MW-4B	09/20/19	232	Hardness		O	05/31/12-06/20/19	27	27	167	243	265	19	0.58	
MW-4B	09/20/19	<10	TSS		O	03/21/13-06/20/19	23	0	<4	10	<10	1	0.00	HIGHEST
MW-4B	09/20/19	6.7	Water Temp	Deg	O	05/31/12-06/20/19	27	27	5.3	6.2	7	0.4	1.25	
MW-4B	09/20/19	0.08	DO		O	05/31/12-06/20/19	27	27	0.03	0.51	3.39	0.71	0.61	
MW-4B	09/20/19	15	Sulfate		O	05/31/12-06/20/19	27	27	11	15	26	3	0.00	
MW-4B	09/20/19	198.96	EH	Milliv	O	03/21/18-06/20/19	5	5	161.51	226.753	347.68	74.903	0.37	
MW-6A	09/19/19	<0.000	Antimony (DIS)		O	11/06/13-06/20/19	21	0	<0.0005	0.0005	<0.0005	0		HIGHEST
MW-6A	09/19/19	<0.000	Beryllium (DIS)		O	11/06/13-06/20/19	21	0	<0.0008	0.0008	<0.0008	0		HIGHEST
MW-6A	09/19/19	<0.000	Cadmium (DIS)		O	11/06/13-06/20/19	21	1	<0.00003	0.00003	0.00005	0		LOWEST
MW-6A	09/19/19	<0.01	Chromium (DIS)		O	11/06/13-06/20/19	21	0	<0.01	0.01	<0.01	0		HIGHEST
MW-6A	09/19/19	<0.002	Copper (DIS)		O	11/06/13-06/20/19	21	0	<0.002	0.002	<0.002	0		HIGHEST
MW-6A	09/19/19	<0.005	Mercury (DIS)	ug/L	O	11/06/13-06/20/19	21	0	<0.000005	0.0002	<0.005	0.001	4.80	HIGHEST
MW-6A	09/19/19	<0.002	Molybdenum (DIS)		O	11/06/13-06/20/19	21	0	<0.001	0.002	<0.002	0		HIGHEST
MW-6A	09/19/19	<0.001	Nickel (DIS)		O	11/06/13-06/20/19	21	2	0.001	0.001	0.002	0		LOWEST
MW-6A	09/19/19	<0.000	Selenium (DIS)		O	11/06/13-06/20/19	21	8	0.0002	0.0002	<0.0004	0.0001	0.00	LOWEST
MW-6A	09/19/19	<0.000	Silver (DIS)		O	11/06/13-06/20/19	21	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-6A	09/19/19	<0.000	Thallium (DIS)		O	11/06/13-06/20/19	21	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-6A	09/19/19	<0.002	Zinc (DIS)		O	11/06/13-06/20/19	21	2	<0.002	0.002	0.005	0.001	0.00	LOWEST
MW-6A	09/19/19	<0.001	Arsenic (DIS)		O	11/06/13-06/20/19	21	0	<0.001	0.001	<0.001	0		HIGHEST

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Quarterly Monitoring

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MW-6A	09/19/19	<0.000	Lead (DIS)		O	11/06/13-06/20/19	21	1	<0.0003	0.0003	0.0009	0.0001	0.00	LOWEST
MW-6A	09/19/19	0.0007	Uranium (DIS)		O	11/06/13-06/20/19	21	3	0.0006	0.0069	<0.008	0.0026	2.38	
MW-6A	09/19/19	<0.009	Aluminum (DIS)		O	11/06/13-06/20/19	21	5	<0.009	0.083	1.55	0.336	0.22	LOWEST
MW-6A	09/19/19	<0.01	Cobalt (DIS)		O	11/06/13-06/20/19	21	0	<0.01	0.01	<0.01	0		HIGHEST
MW-6A	09/19/19	53	Calcium		O	11/06/13-06/20/19	21	21	47	56	61	4	0.75	
MW-6A	09/19/19	0.175	Barium (DIS)		O	11/06/13-06/20/19	21	21	0.16	0.178	0.194	0.011	0.27	
MW-6A	09/19/19	<0.02	Iron (DIS)		O	11/06/13-06/20/19	21	2	<0.02	0.05	0.7	0.15	0.20	LOWEST
MW-6A	09/19/19	23	Magnesium		O	11/06/13-06/20/19	21	21	22	25	27	2	1.00	
MW-6A	09/19/19	<0.005	Manganese (DIS)		O	11/06/13-06/20/19	21	1	<0.001	0.005	0.007	0.001	0.00	
MW-6A	09/19/19	<1	Potassium		O	11/06/13-06/20/19	21	1	1	1	1	0		HIGHEST
MW-6A	09/19/19	3	Sodium		O	11/06/13-06/20/19	21	21	3	3	3	0		HIGHEST
MW-6A	09/19/19	0.155	Strontium (DIS)		O	11/06/13-06/20/19	21	21	0.14	0.162	0.175	0.009	0.78	
MW-6A	09/19/19	8.45	SWL	Feet	O	11/06/13-06/20/19	21	21	6.34	8.34	9.73	1.04	0.11	
MW-6A	09/19/19	1	Chloride		O	11/06/13-06/20/19	21	11	1	1	1	0		HIGHEST
MW-6A	09/19/19	0.2	Fluoride		O	11/06/13-06/20/19	21	21	0.2	0.2	0.2	0		HIGHEST
MW-6A	09/19/19	0.14	N+N		O	11/06/13-06/20/19	21	21	0.07	0.12	0.21	0.04	0.50	
MW-6A	09/19/19	7.66	Field pH	s.u.	O	11/06/13-06/20/19	21	21	6.61	7.45	7.73	0.26	0.81	
MW-6A	09/19/19	437	Field SC	umh	O	11/06/13-06/20/19	21	21	397	436	489	24	0.04	
MW-6A	09/19/19	244	TDS		O	11/06/13-06/20/19	21	21	223	244	266	10	0.00	
MW-6A	09/19/19	230	Alkalinity		O	11/06/13-06/20/19	21	21	210	230	250	14	0.00	
MW-6A	09/19/19	229	Hardness		O	11/06/13-06/20/19	21	21	207	241	264	15	0.80	
MW-6A	09/19/19	28	TSS		O	03/25/14-06/20/19	19	13	<10	51	193	59	0.39	
MW-6A	09/19/19	9.6	Water Temp	Deg	O	11/06/13-06/20/19	21	21	4.9	6.6	8.1	0.9	3.33	HIGHEST
MW-6A	09/19/19	7.13	DO		O	11/06/13-06/20/19	21	21	3.07	5.62	8.09	1.34	1.13	
MW-6A	09/19/19	15	Sulfate		O	11/06/13-06/20/19	21	20	<1	14	18	4	0.25	
MW-6A	09/19/19	267.76	EH	Milliv	O	03/20/18-06/20/19	5	5	240.457	309.819	416.95	72.755	0.58	
MW-6B	09/19/19	<0.000	Antimony (DIS)		O	11/06/13-06/20/19	21	0	<0.0005	0.0005	<0.0005	0		HIGHEST
MW-6B	09/19/19	<0.000	Beryllium (DIS)		O	11/06/13-06/20/19	21	0	<0.0008	0.0008	<0.0008	0		HIGHEST
MW-6B	09/19/19	<0.000	Cadmium (DIS)		O	11/06/13-06/20/19	21	0	<0.00003	0.00003	<0.00003	0		HIGHEST
MW-6B	09/19/19	<0.01	Chromium (DIS)		O	11/06/13-06/20/19	21	0	<0.01	0.01	<0.01	0		HIGHEST
MW-6B	09/19/19	<0.002	Copper (DIS)		O	11/06/13-06/20/19	21	0	<0.002	0.002	<0.002	0		HIGHEST

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Quarterly Monitoring

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MW-6B	09/19/19	<0.005	Mercury (DIS)	ug/L	O	11/06/13-06/20/19	21	0	<0.000005	0.0002	<0.005	0.001	4.80	HIGHEST
MW-6B	09/19/19	<0.002	Molybdenum (DIS)		O	11/06/13-06/20/19	21	2	0.001	0.002	0.002	0		HIGHEST
MW-6B	09/19/19	<0.001	Nickel (DIS)		O	11/06/13-06/20/19	21	0	<0.001	0.001	<0.001	0		HIGHEST
MW-6B	09/19/19	<0.000	Selenium (DIS)		O	11/06/13-06/20/19	21	3	<0.0002	0.0002	<0.0004	0		LOWEST
MW-6B	09/19/19	<0.000	Silver (DIS)		O	11/06/13-06/20/19	21	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-6B	09/19/19	<0.000	Thallium (DIS)		O	11/06/13-06/20/19	21	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-6B	09/19/19	<0.002	Zinc (DIS)		O	11/06/13-06/20/19	21	1	<0.002	0.002	<0.002	0		HIGHEST
MW-6B	09/19/19	<0.001	Arsenic (DIS)		O	11/06/13-06/20/19	21	0	<0.001	0.001	<0.001	0		HIGHEST
MW-6B	09/19/19	<0.000	Lead (DIS)		O	11/06/13-06/20/19	21	1	0.0003	0.0003	0.0003	0		HIGHEST
MW-6B	09/19/19	0.0006	Uranium (DIS)		O	11/06/13-06/20/19	21	3	0.0006	0.007	<0.008	0.0026	2.46	LOWEST
MW-6B	09/19/19	<0.009	Aluminum (DIS)		O	11/06/13-06/20/19	21	8	<0.009	0.026	0.275	0.058	0.29	LOWEST
MW-6B	09/19/19	<0.01	Cobalt (DIS)		O	11/06/13-06/20/19	21	0	<0.01	0.01	<0.01	0		HIGHEST
MW-6B	09/19/19	47	Calcium		O	11/06/13-06/20/19	21	21	41	48	51	2	0.50	
MW-6B	09/19/19	0.104	Barium (DIS)		O	11/06/13-06/20/19	21	21	0.084	0.101	0.12	0.008	0.37	
MW-6B	09/19/19	<0.02	Iron (DIS)		O	11/06/13-06/20/19	21	3	<0.02	0.03	0.15	0.03	0.33	LOWEST
MW-6B	09/19/19	23	Magnesium		O	11/06/13-06/20/19	21	21	21	24	26	1	1.00	
MW-6B	09/19/19	<0.005	Manganese (DIS)		O	11/06/13-06/20/19	21	19	<0.005	0.016	0.064	0.014	0.79	LOWEST
MW-6B	09/19/19	1	Potassium		O	11/06/13-06/20/19	21	21	1	1	2	0		LOWEST
MW-6B	09/19/19	15	Sodium		O	11/06/13-06/20/19	21	21	9	17	21	2	1.00	
MW-6B	09/19/19	0.225	Strontium (DIS)		O	11/06/13-06/20/19	21	21	0.181	0.231	0.258	0.02	0.30	
MW-6B	09/19/19	11.7	SWL	Feet	O	11/06/13-06/20/19	21	21	10	11.7	12.95	1	0.00	
MW-6B	09/19/19	<1	Chloride		O	11/06/13-06/20/19	21	10	1	1	2	0		LOWEST
MW-6B	09/19/19	0.5	Fluoride		O	11/06/13-06/20/19	21	21	0.5	0.6	0.8	0.1	1.00	LOWEST
MW-6B	09/19/19	0.09	N+N		O	11/06/13-06/20/19	21	21	0.06	0.09	0.14	0.03	0.00	
MW-6B	09/19/19	7.7	Field pH	s.u.	O	11/06/13-06/20/19	21	21	7.16	7.6	7.75	0.2	0.50	
MW-6B	09/19/19	454	Field SC	umh	O	11/06/13-06/20/19	21	21	422	456	508	22	0.09	
MW-6B	09/19/19	252	TDS		O	11/06/13-06/20/19	21	21	236	254	272	9	0.22	
MW-6B	09/19/19	230	Alkalinity		O	11/06/13-06/20/19	21	21	210	229	240	8	0.12	
MW-6B	09/19/19	210	Hardness		O	11/06/13-06/20/19	21	21	190	217	230	11	0.64	
MW-6B	09/19/19	<10	TSS		O	03/25/14-06/20/19	19	15	<10	98	1260	285	0.31	LOWEST
MW-6B	09/19/19	7.1	Water Temp	Deg	O	11/06/13-06/20/19	21	21	5.4	6.4	6.9	0.3	2.33	HIGHEST

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MW-6B	09/19/19	3.66	DO		O	11/06/13-06/20/19	21	21	1.83	3.19	4.6	0.82	0.57	
MW-6B	09/19/19	23	Sulfate		O	11/06/13-06/20/19	21	21	16	22	29	3	0.33	
MW-6B	09/19/19	256.49	EH	Milliv	O	03/20/18-06/20/19	5	5	244.4	293.469	413.78	71.947	0.51	
MW-7	09/19/19	<0.000	Antimony (DIS)		O	11/06/13-06/20/19	21	2	<0.0005	0.001	0.0094	0.0019	0.26	LOWEST
MW-7	09/19/19	<0.000	Beryllium (DIS)		O	11/06/13-06/20/19	21	0	<0.0008	0.0008	<0.0008	0		HIGHEST
MW-7	09/19/19	<0.000	Cadmium (DIS)		O	11/06/13-06/20/19	21	1	<0.00003	0.00003	0.00004	0		LOWEST
MW-7	09/19/19	<0.01	Chromium (DIS)		O	11/06/13-06/20/19	21	0	<0.01	0.01	<0.01	0		HIGHEST
MW-7	09/19/19	<0.002	Copper (DIS)		O	11/06/13-06/20/19	21	0	<0.002	0.002	<0.002	0		HIGHEST
MW-7	09/19/19	<0.005	Mercury (DIS)	ug/L	O	11/06/13-06/20/19	21	1	<0.000005	0.0002	<0.005	0.001	4.80	HIGHEST
MW-7	09/19/19	0.003	Molybdenum (DIS)		O	11/06/13-06/20/19	21	17	0.002	0.003	0.012	0.002	0.00	
MW-7	09/19/19	0.001	Nickel (DIS)		O	11/06/13-06/20/19	21	1	<0.001	0.001	<0.001	0		HIGHEST
MW-7	09/19/19	<0.000	Selenium (DIS)		O	11/06/13-06/20/19	21	1	<0.0002	0.0002	0.0005	0.0001	0.00	LOWEST
MW-7	09/19/19	<0.000	Silver (DIS)		O	11/06/13-06/20/19	21	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-7	09/19/19	<0.000	Thallium (DIS)		O	11/06/13-06/20/19	21	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-7	09/19/19	<0.002	Zinc (DIS)		O	11/06/13-06/20/19	21	2	<0.002	0.002	0.005	0.001	0.00	LOWEST
MW-7	09/19/19	0.001	Arsenic (DIS)		O	11/06/13-06/20/19	21	21	0.001	0.002	0.003	0		LOWEST
MW-7	09/19/19	0.0014	Lead (DIS)		O	11/06/13-06/20/19	21	10	<0.0003	0.0006	0.0037	0.0008	1.00	
MW-7	09/19/19	0.002	Uranium (DIS)		O	11/06/13-06/20/19	21	3	0.0019	0.007	<0.008	0.002	2.50	
MW-7	09/19/19	0.037	Aluminum (DIS)		O	11/06/13-06/20/19	21	14	<0.009	0.027	0.097	0.028	0.36	
MW-7	09/19/19	<0.01	Cobalt (DIS)		O	11/06/13-06/20/19	21	0	<0.01	0.01	<0.01	0		HIGHEST
MW-7	09/19/19	57	Calcium		O	11/06/13-06/20/19	21	21	50	58	63	3	0.33	
MW-7	09/19/19	0.04	Barium (DIS)		O	11/06/13-06/20/19	21	21	0.04	0.05	0.066	0.01	1.00	LOWEST
MW-7	09/19/19	0.1	Iron (DIS)		O	11/06/13-06/20/19	21	20	0.02	0.1	0.22	0		
MW-7	09/19/19	36	Magnesium		O	11/06/13-06/20/19	21	21	34	37	40	2	0.50	
MW-7	09/19/19	0.015	Manganese (DIS)		O	11/06/13-06/20/19	21	21	0.007	0.061	0.369	0.078	0.59	
MW-7	09/19/19	1	Potassium		O	11/06/13-06/20/19	21	21	1	1	3	0		LOWEST
MW-7	09/19/19	3	Sodium		O	11/06/13-06/20/19	21	21	2	3	4	0		
MW-7	09/19/19	0.158	Strontium (DIS)		O	11/06/13-06/20/19	21	21	0.148	0.168	0.205	0.012	0.83	
MW-7	09/19/19	32.06	SWL	Feet	O	11/06/13-06/20/19	21	21	30.92	31.99	33.49	0.75	0.09	
MW-7	09/19/19	4	Chloride		O	11/06/13-06/20/19	21	21	3	4	5	1	0.00	
MW-7	09/19/19	0.3	Fluoride		O	11/06/13-06/20/19	21	21	0.3	0.3	0.7	0.1	0.00	LOWEST

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MW-7	09/19/19	<0.01	N+N		O	11/06/13-06/20/19	21	3	<0.01	0.02	<0.05	0.01	1.00	LOWEST
MW-7	09/19/19	7.75	Field pH	s.u.	O	11/06/13-06/20/19	21	21	6.83	7.46	7.61	0.18	1.61	HIGHEST
MW-7	09/19/19	526	Field SC	umh	O	11/06/13-06/20/19	21	21	490	537	582	25	0.44	
MW-7	09/19/19	327	TDS		O	11/06/13-06/20/19	21	21	304	319	348 D	12	0.67	
MW-7	09/19/19	230	Alkalinity		O	11/06/13-06/20/19	21	21	220	237	280	16	0.44	
MW-7	09/19/19	291	Hardness		O	11/06/13-06/20/19	21	21	266	298	322	14	0.50	
MW-7	09/19/19	100	TSS		O	03/25/14-06/20/19	19	16	<10	213	1440	338	0.33	
MW-7	09/19/19	9.9	Water Temp	Deg	O	11/06/13-06/20/19	21	21	6.3	7.6	8.8	0.6	3.83	HIGHEST
MW-7	09/19/19	4	DO		O	11/06/13-06/20/19	21	21	0.07	1	2.4	1	3.00	HIGHEST
MW-7	09/19/19	70	Sulfate		O	11/06/13-06/20/19	21	21	54	67	84	8	0.38	
MW-7	09/19/19	190.41	EH	Milliv	O	03/20/18-06/20/19	5	5	193.20	208.889	244.51	21.146	0.87	LOWEST
MW-8	09/19/19	<0.000	Antimony (DIS)		O	11/06/13-06/20/19	21	6	0.0005	0.0015	0.0179	0.0038	0.26	LOWEST
MW-8	09/19/19	<0.000	Beryllium (DIS)		O	11/06/13-06/20/19	21	0	<0.0008	0.0008	<0.0008	0		HIGHEST
MW-8	09/19/19	<0.000	Cadmium (DIS)		O	11/06/13-06/20/19	21	0	<0.00003	0.00003	<0.00003	0		HIGHEST
MW-8	09/19/19	<0.01	Chromium (DIS)		O	11/06/13-06/20/19	21	0	<0.01	0.01	<0.01	0		HIGHEST
MW-8	09/19/19	<0.002	Copper (DIS)		O	11/06/13-06/20/19	21	0	<0.002	0.002	<0.002	0		HIGHEST
MW-8	09/19/19	<0.005	Mercury (DIS)	ug/L	O	11/06/13-06/20/19	21	0	<0.000005	0.0002	<0.005	0.001	4.80	HIGHEST
MW-8	09/19/19	<0.002	Molybdenum (DIS)		O	11/06/13-06/20/19	21	13	<0.002	0.003	0.015	0.003	0.33	LOWEST
MW-8	09/19/19	<0.001	Nickel (DIS)		O	11/06/13-06/20/19	21	1	0.001	0.001	0.001	0		HIGHEST
MW-8	09/19/19	<0.000	Selenium (DIS)		O	11/06/13-06/20/19	21	2	<0.0002	0.0018	0.0328	0.0071	0.23	LOWEST
MW-8	09/19/19	<0.000	Silver (DIS)		O	11/06/13-06/20/19	21	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-8	09/19/19	<0.000	Thallium (DIS)		O	11/06/13-06/20/19	21	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-8	09/19/19	<0.002	Zinc (DIS)		O	11/06/13-06/20/19	21	2	<0.002	0.002	0.003	0		LOWEST
MW-8	09/19/19	0.002	Arsenic (DIS)		O	11/06/13-06/20/19	21	21	0.002	0.002	0.004	0.001	0.00	LOWEST
MW-8	09/19/19	<0.000	Lead (DIS)		O	11/06/13-06/20/19	21	0	<0.0003	0.0003	<0.0003	0		HIGHEST
MW-8	09/19/19	0.0007	Uranium (DIS)		O	11/06/13-06/20/19	21	3	0.0007	0.007	<0.008	0.0026	2.42	LOWEST
MW-8	09/19/19	<0.009	Aluminum (DIS)		O	11/06/13-06/20/19	21	5	<0.009	0.011	0.036	0.006	0.33	LOWEST
MW-8	09/19/19	<0.01	Cobalt (DIS)		O	11/06/13-06/20/19	21	0	<0.01	0.01	<0.01	0		HIGHEST
MW-8	09/19/19	25	Calcium		O	11/06/13-06/20/19	21	21	23	26	29	1	1.00	
MW-8	09/19/19	0.076	Barium (DIS)		O	11/06/13-06/20/19	21	21	0.066	0.075	0.08	0.003	0.33	
MW-8	09/19/19	0.09	Iron (DIS)		O	11/06/13-06/20/19	21	21	0.02	0.08	0.11	0.02	0.50	

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Data Comparison Summary

Report Date: November 7, 2019

Quarterly Monitoring

STATION	SAMPLE DATE	RESULT mg/L	PARAMETER		QC Code	COMPARISON PERIOD	N	# OF DET	MIN mg/L	MEAN: mg/L	MAX mg/L	STDDARD DEVIATION	STD DEVS FROM MEAN	RELATION TO DATABASE PERIOD
MW-8	09/19/19	23	Magnesium		O	11/06/13-06/20/19	21	21	22	24	25	1	1.00	
MW-8	09/19/19	0.009	Manganese (DIS)		O	11/06/13-06/20/19	21	21	0.013	0.048	0.255	0.053	0.74	LOWEST
MW-8	09/19/19	<1	Potassium		O	11/06/13-06/20/19	21	2	1	1	1	0		HIGHEST
MW-8	09/19/19	3	Sodium		O	11/06/13-06/20/19	21	21	3	3	6	1	0.00	LOWEST
MW-8	09/19/19	0.0832	Strontium (DIS)		O	11/06/13-06/20/19	21	21	0.0751	0.0866	0.0984	0.0046	0.74	
MW-8	09/19/19	30.21	SWL	Feet	O	11/06/13-06/20/19	21	21	27.55	30.34	32.74	1.48	0.09	
MW-8	09/19/19	<1	Chloride		O	11/06/13-06/20/19	21	0	<1	1	<1	0		HIGHEST
MW-8	09/19/19	0.2	Fluoride		O	11/06/13-06/20/19	21	21	0.2	0.2	0.3	0		LOWEST
MW-8	09/19/19	<0.01	N+N		O	11/06/13-06/20/19	21	1	0.01	0.01	0.01	0		HIGHEST
MW-8	09/19/19	7.98	Field pH	s.u.	O	11/06/13-06/20/19	21	21	7.46	7.9	8.08	0.18	0.44	
MW-8	09/19/19	308	Field SC	umh	O	11/06/13-06/20/19	21	21	280	307	330	13	0.08	
MW-8	09/19/19	162	TDS		O	11/06/13-06/20/19	21	21	151	163	171	5	0.20	
MW-8	09/19/19	150	Alkalinity		O	11/06/13-06/20/19	21	21	140	154	170	7	0.57	
MW-8	09/19/19	156	Hardness		O	11/06/13-06/20/19	21	21	146	163	173	6	1.17	
MW-8	09/19/19	<10	TSS		O	03/25/14-06/20/19	19	7	<4	16	65	15	0.40	
MW-8	09/19/19	7.6	Water Temp	Deg	O	11/06/13-06/20/19	21	21	6	7	7.34	0.4	1.50	HIGHEST
MW-8	09/19/19	0.08	DO		O	11/06/13-06/20/19	21	21	0.01	0.3	1.3	0.34	0.65	
MW-8	09/19/19	15	Sulfate		O	11/06/13-06/20/19	21	21	11	14	16	2	0.50	
MW-8	09/19/19	102.60	EH	Milliv	O	03/20/18-06/20/19	5	5	83.66	115.884	134.86	19.286	0.69	
MW-9	09/20/19	<0.000	Antimony (DIS)		O	11/24/14-06/19/19	18	0	<0.0005	0.0005	<0.0005	0		HIGHEST
MW-9	09/20/19	<0.000	Beryllium (DIS)		O	11/24/14-06/19/19	18	0	<0.0008	0.0008	<0.0008	0		HIGHEST
MW-9	09/20/19	<0.000	Cadmium (DIS)		O	11/24/14-06/19/19	18	0	<0.00003	0.00003	<0.00003	0		HIGHEST
MW-9	09/20/19	<0.01	Chromium (DIS)		O	11/24/14-06/19/19	18	0	<0.01	0.01	<0.01	0		HIGHEST
MW-9	09/20/19	<0.002	Copper (DIS)		O	11/24/14-06/19/19	18	0	<0.002	0.002	<0.002	0		HIGHEST
MW-9	09/20/19	<0.005	Mercury (DIS)	ug/L	O	11/24/14-06/19/19	18	0	<0.000005	0.0003	<0.005	0.001	4.70	HIGHEST
MW-9	09/20/19	<0.002	Molybdenum (DIS)		O	11/24/14-06/19/19	18	0	<0.002	0.002	<0.002	0		HIGHEST
MW-9	09/20/19	<0.001	Nickel (DIS)		O	11/24/14-06/19/19	18	8	0.001	0.001	0.001	0		HIGHEST
MW-9	09/20/19	<0.000	Selenium (DIS)		O	11/24/14-06/19/19	18	0	<0.0002	0.0002	<0.0004	0		LOWEST
MW-9	09/20/19	<0.000	Silver (DIS)		O	11/24/14-06/19/19	18	0	<0.0002	0.0002	<0.0002	0		HIGHEST
MW-9	09/20/19	0.0032	Thallium (DIS)		O	11/24/14-06/19/19	18	18	0.0027	0.0037	0.0045	0.0004	1.25	
MW-9	09/20/19	<0.002	Zinc (DIS)		O	11/24/14-06/19/19	18	9	<0.002	0.002	0.004	0.001	0.00	LOWEST

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Quarterly Monitoring

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MW-9	09/20/19	0.012	Arsenic (DIS)		O	11/24/14-06/19/19	18	18	0.012	0.013	0.015	0.001	1.00	LOWEST
MW-9	09/20/19	0.0008	Lead (DIS)		O	11/24/14-06/19/19	18	15	<0.0003	0.0031	0.012	0.0031	0.74	
MW-9	09/20/19	0.0009	Uranium (DIS)		O	11/24/14-06/19/19	18	2	0.0009	0.0072	<0.008	0.0023	2.74	LOWEST
MW-9	09/20/19	<0.009	Aluminum (DIS)		O	11/24/14-06/19/19	18	3	<0.009	0.012	0.042	0.008	0.38	LOWEST
MW-9	09/20/19	<0.01	Cobalt (DIS)		O	11/24/14-06/19/19	18	0	<0.01	0.01	<0.01	0		HIGHEST
MW-9	09/20/19	82	Calcium		O	11/24/14-06/19/19	18	18	79	88	92	3	2.00	
MW-9	09/20/19	0.014	Barium (DIS)		O	11/24/14-06/19/19	18	18	0.012	0.015	0.021	0.002	0.50	
MW-9	09/20/19	0.85	Iron (DIS)		O	11/24/14-06/19/19	18	18	0.78 J	0.84	0.9	0.03	0.33	
MW-9	09/20/19	49	Magnesium		O	11/24/14-06/19/19	18	18	46	51	55	2	1.00	
MW-9	09/20/19	0.083	Manganese (DIS)		O	11/24/14-06/19/19	18	18	0.083	0.096	0.129	0.011	1.18	LOWEST
MW-9	09/20/19	4	Potassium		O	11/24/14-06/19/19	18	18	4	4	5	0		LOWEST
MW-9	09/20/19	5	Sodium		O	11/24/14-06/19/19	18	18	5	5	6	0		LOWEST
MW-9	09/20/19	1.22 L	Strontium (DIS)		O	11/24/14-06/19/19	18	18	1.08	1.24	1.53	0.12	0.17	
MW-9	09/20/19	51.26	SWL	Feet	O	11/24/14-06/19/19	18	18	46.89	50.43	52.22	1.3	0.64	
MW-9	09/20/19	1	Chloride		O	11/24/14-06/19/19	18	18	1	1	2	0		LOWEST
MW-9	09/20/19	0.5	Fluoride		O	11/24/14-06/19/19	18	18	0.5	0.6	0.6	0		LOWEST
MW-9	09/20/19	<0.01	N+N		O	11/24/14-06/19/19	18	2	<0.01	0.01	0.02	0		LOWEST
MW-9	09/20/19	7.03	Field pH	s.u.	O	11/24/14-06/19/19	18	18	6.72	7.02	7.15	0.1	0.10	
MW-9	09/20/19	791	Field SC	umh	O	11/24/14-06/19/19	18	18	470	758	826	78	0.42	
MW-9	09/20/19	529	TDS		O	11/24/14-06/19/19	18	18	501	525	548	11	0.36	
MW-9	09/20/19	250	Alkalinity		O	11/24/14-06/19/19	18	18	230	242	250	6	1.33	HIGHEST
MW-9	09/20/19	405	Hardness		O	11/24/14-06/19/19	18	18	389	430	454	18	1.39	
MW-9	09/20/19	<10	TSS		O	03/24/15-06/19/19	17	1	<4	12	51 J	10	0.20	
MW-9	09/20/19	9.2	Water Temp	Deg	O	11/24/14-06/19/19	18	18	6.8	8.5	9.4	0.7	1.00	
MW-9	09/20/19	0.06	DO		O	11/24/14-06/19/19	18	18	0.02	0.32	1.25	0.41	0.63	
MW-9	09/20/19	195	Sulfate		O	11/24/14-06/19/19	18	18	190	203	216	8	1.00	
MW-9	09/20/19	173.53	EH	Milliv	O	03/19/18-06/19/19	5	5	153.84	188.372	227.53	27.527	0.54	
SC15-184	09/20/19	<0.000	Antimony (DIS)		O	08/04/15-06/17/19	9	0	<0.0005	0.0005	<0.0005	0		HIGHEST
SC15-184	09/20/19	<0.000	Beryllium (DIS)		O	08/04/15-06/17/19	9	0	<0.0008	0.0008	<0.0008	0		HIGHEST
SC15-184	09/20/19	<0.000	Cadmium (DIS)		O	08/04/15-06/17/19	9	0	<0.00003	0.00003	<0.00003	0		HIGHEST
SC15-184	09/20/19	<0.01	Chromium (DIS)		O	08/04/15-06/17/19	9	0	<0.01	0.01	<0.01	0		HIGHEST

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Quarterly Monitoring

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SC15-184	09/20/19	<0.002	Copper (DIS)		O	08/04/15-06/17/19	9	0	<0.002	0.002	<0.002	0		HIGHEST
SC15-184	09/20/19	<0.005	Mercury (DIS)	ug/L	O	08/04/15-06/17/19	9	0	<0.000005	0.001	<0.005	0.002	2.00	HIGHEST
SC15-184	09/20/19	<0.002	Molybdenum (DIS)		O	08/04/15-06/17/19	9	0	<0.002	0.002	<0.002	0		HIGHEST
SC15-184	09/20/19	<0.001	Nickel (DIS)		O	08/04/15-06/17/19	9	0	<0.001	0.001	<0.001	0		HIGHEST
SC15-184	09/20/19	0.0011	Selenium (DIS)		O	08/04/15-06/17/19	9	9	0.0006	0.0011	0.0014 L	0.0002	0.00	
SC15-184	09/20/19	<0.000	Silver (DIS)		O	08/04/15-06/17/19	9	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SC15-184	09/20/19	<0.000	Thallium (DIS)		O	08/04/15-06/17/19	9	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SC15-184	09/20/19	<0.002	Zinc (DIS)		O	08/04/15-06/17/19	9	6	<0.002	0.005	0.013	0.004	0.75	LOWEST
SC15-184	09/20/19	<0.001	Arsenic (DIS)		O	08/04/15-06/17/19	9	0	<0.001	0.001	<0.001	0		HIGHEST
SC15-184	09/20/19	<0.000	Lead (DIS)		O	08/04/15-06/17/19	9	0	<0.0003	0.0003	<0.0003	0		HIGHEST
SC15-184	09/20/19	0.001	Uranium (DIS)		O	08/04/15-06/17/19	9	2	0.001	0.006	<0.008	0.003	1.67	LOWEST
SC15-184	09/20/19	<0.009	Aluminum (DIS)		O	08/04/15-06/17/19	9	3	<0.009	0.018	0.059	0.017	0.53	LOWEST
SC15-184	09/20/19	<0.01	Cobalt (DIS)		O	08/04/15-06/17/19	9	0	<0.01	0.01	<0.01	0		HIGHEST
SC15-184	09/20/19	36	Calcium		O	08/04/15-06/17/19	9	9	36	38	41	2	1.00	LOWEST
SC15-184	09/20/19	0.087	Barium (DIS)		O	08/04/15-06/17/19	9	9	0.083	0.087	0.092	0.003	0.00	
SC15-184	09/20/19	<0.02	Iron (DIS)		O	08/04/15-06/17/19	9	3	<0.02	0.03	0.05	0.01	1.00	LOWEST
SC15-184	09/20/19	25	Magnesium		O	08/04/15-06/17/19	9	9	25	26	28	1	1.00	LOWEST
SC15-184	09/20/19	<0.005	Manganese (DIS)		O	08/04/15-06/17/19	9	0	<0.005	0.005	<0.005	0		HIGHEST
SC15-184	09/20/19	<1	Potassium		O	08/04/15-06/17/19	9	0	<1	1	<1	0		HIGHEST
SC15-184	09/20/19	2	Sodium		O	08/04/15-06/17/19	9	9	2	2	2	0		HIGHEST
SC15-184	09/20/19	0.115	Strontium (DIS)		O	08/04/15-06/17/19	9	9	0.105	0.116	0.123	0.006	0.17	
SC15-184	09/20/19	0	SWL	Feet	O	N/A				0		0		LOWEST
SC15-184	09/20/19	<1	Chloride		O	08/04/15-06/17/19	9	0	<1	1	<1	0		HIGHEST
SC15-184	09/20/19	0.2	Fluoride		O	08/04/15-06/17/19	9	9	0.2	0.2	0.2	0		HIGHEST
SC15-184	09/20/19	0.28	N+N		O	08/04/15-06/17/19	9	9	0.24	0.26	0.3	0.02	1.00	
SC15-184	09/20/19	8	Field pH	s.u.	O	08/04/15-06/17/19	9	9	7.32	8	8.01	0		
SC15-184	09/20/19	368	Field SC	umh	O	08/04/15-06/17/19	9	9	333	363	380	14	0.36	
SC15-184	09/20/19	195	TDS		O	08/04/15-06/17/19	9	9	194	199	214	7	0.57	
SC15-184	09/20/19	190	Alkalinity		O	08/04/15-06/17/19	9	9	180	187	190	5	0.60	HIGHEST
SC15-184	09/20/19	190	Hardness		O	08/04/15-06/17/19	9	9	192	203	215	8	1.62	LOWEST
SC15-184	09/20/19	<10	TSS		O	08/04/15-06/17/19	9	1	<10	21	110	33	0.33	LOWEST

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SC15-184	09/20/19	6.7	Water Temp	Deg	O	08/04/15-06/17/19	9	9	5.8	6.4	6.8	0.4	0.75	
SC15-184	09/20/19	7.26	DO		O	08/04/15-06/17/19	9	9	4.58	6.37	8.34	1.2	0.74	
SC15-184	09/20/19	16	Sulfate		O	08/04/15-06/17/19	9	9	11	14	16	2	1.00	HIGHEST
SC15-184	09/20/19	241.46	EH	Milliv	O	06/13/18-06/17/19	4	4	247.814	364.826	507.88	110.891	1.11	LOWEST
SC15-185	09/23/19	<0.000	Antimony (DIS)		O	08/04/15-06/18/19	14	4	<0.0005	0.0006	0.0008	0.0001	1.00	LOWEST
SC15-185	09/23/19	<0.000	Beryllium (DIS)		O	08/04/15-06/18/19	14	0	<0.0008	0.0008	<0.0008	0		HIGHEST
SC15-185	09/23/19	<0.000	Cadmium (DIS)		O	08/04/15-06/18/19	14	0	<0.00003	0.00003	<0.00003	0		HIGHEST
SC15-185	09/23/19	<0.01	Chromium (DIS)		O	08/04/15-06/18/19	14	0	<0.01	0.01	<0.01	0		HIGHEST
SC15-185	09/23/19	<0.002	Copper (DIS)		O	08/04/15-06/18/19	14	1	<0.002	0.002	<0.002	0		HIGHEST
SC15-185	09/23/19	<0.005	Mercury (DIS)	ug/L	O	08/04/15-06/18/19	14	0	<0.000005	0.0004	<0.005	0.001	4.60	HIGHEST
SC15-185	09/23/19	0.004	Molybdenum (DIS)		O	08/04/15-06/18/19	14	14	0.003	0.005	0.011	0.002	0.50	
SC15-185	09/23/19	<0.001	Nickel (DIS)		O	08/04/15-06/18/19	14	0	<0.001	0.001	<0.001	0		HIGHEST
SC15-185	09/23/19	<0.000	Selenium (DIS)		O	08/04/15-06/18/19	14	2	<0.0002	0.0002	<0.0004	0.0001	0.00	LOWEST
SC15-185	09/23/19	<0.000	Silver (DIS)		O	08/04/15-06/18/19	14	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SC15-185	09/23/19	<0.000	Thallium (DIS)		O	08/04/15-06/18/19	14	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SC15-185	09/23/19	<0.002	Zinc (DIS)		O	08/04/15-06/18/19	14	6	<0.002	0.002	0.004	0.001	0.00	LOWEST
SC15-185	09/23/19	<0.001	Arsenic (DIS)		O	08/04/15-06/18/19	14	0	<0.001	0.001	<0.001	0		HIGHEST
SC15-185	09/23/19	<0.000	Lead (DIS)		O	08/04/15-06/18/19	14	0	<0.0003	0.0003	<0.0003	0		HIGHEST
SC15-185	09/23/19	0.0031	Uranium (DIS)		O	08/04/15-06/18/19	14	2	0.003	0.0073	<0.008	0.0018	2.33	
SC15-185	09/23/19	0.011	Aluminum (DIS)		O	08/04/15-06/18/19	14	5	<0.009	0.012	0.041	0.008	0.12	
SC15-185	09/23/19	<0.01	Cobalt (DIS)		O	08/04/15-06/18/19	14	0	<0.01	0.01	<0.01	0		HIGHEST
SC15-185	09/23/19	44	Calcium		O	08/04/15-06/18/19	14	14	42	46	49	2	1.00	
SC15-185	09/23/19	0.069	Barium (DIS)		O	08/04/15-06/18/19	14	14	0.058	0.068	0.078	0.006	0.17	
SC15-185	09/23/19	<0.02	Iron (DIS)		O	08/04/15-06/18/19	14	0	<0.02	0.02	<0.02	0		HIGHEST
SC15-185	09/23/19	21	Magnesium		O	08/04/15-06/18/19	14	14	21	22	23	1	1.00	LOWEST
SC15-185	09/23/19	<0.005	Manganese (DIS)		O	08/04/15-06/18/19	14	6	<0.005	0.032	0.127	0.04	0.68	LOWEST
SC15-185	09/23/19	2	Potassium		O	08/04/15-06/18/19	14	14	2	2	3	1	0.00	LOWEST
SC15-185	09/23/19	4	Sodium		O	08/04/15-06/18/19	14	14	4	5	9	2	0.50	LOWEST
SC15-185	09/23/19	0.244	Strontium (DIS)		O	08/04/15-06/18/19	14	14	0.228	0.241	0.262	0.01	0.30	
SC15-185	09/23/19	29.59	SWL	Feet	O	08/04/15-06/18/19	14	14	23.4	30.79	37.21	4.07	0.29	
SC15-185	09/23/19	<1	Chloride		O	08/04/15-06/18/19	14	1	1	1	1	0		HIGHEST

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Quarterly Monitoring

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SC15-185	09/23/19	0.1	Fluoride		O	08/04/15-06/18/19	14	14	0.1	0.1	0.2	0.1	0.00	LOWEST
SC15-185	09/23/19	0.24	N+N		O	08/04/15-06/18/19	14	14	0.21	0.29	0.38	0.05	1.00	
SC15-185	09/23/19	7.94	Field pH	s.u.	O	08/04/15-06/18/19	14	14	6.1	7.77	8.27	0.53	0.32	
SC15-185	09/23/19	395	Field SC	umh	O	08/04/15-06/18/19	14	14	3.92	376	474.3	109	0.17	
SC15-185	09/23/19	227	TDS		O	08/04/15-06/18/19	14	14	208	218	227	5	1.80	HIGHEST
SC15-185	09/23/19	210	Alkalinity		O	08/04/15-06/18/19	14	14	200	204	210	5	1.20	HIGHEST
SC15-185	09/23/19	197	Hardness		O	08/04/15-06/18/19	14	14	191	206	219	8	1.12	
SC15-185	09/23/19	<10	TSS		O	08/04/15-06/18/19	14	2	<4	11	29	5	0.20	
SC15-185	09/23/19	6.6	Water Temp	Deg	O	08/04/15-06/18/19	14	14	1.6	5.7	11.1	2.1	0.43	
SC15-185	09/23/19	4.64	DO		O	08/04/15-06/18/19	14	14	1.12	4.41	6.17	1.29	0.18	
SC15-185	09/23/19	10	Sulfate		O	08/04/15-06/18/19	14	14	8.9	11	15	2	0.50	
SC15-185	09/23/19	253.37	EH	Milliv	O	03/22/18-06/18/19	5	5	250.484	363.141	479.88	88.85	1.24	
SC15-194	09/23/19	<0.000	Antimony (DIS)		O	08/04/15-06/18/19	14	1	<0.0005	0.0005	0.0007	0.0001	0.00	LOWEST
SC15-194	09/23/19	<0.000	Beryllium (DIS)		O	08/04/15-06/18/19	14	0	<0.0008	0.0008	<0.0008	0		HIGHEST
SC15-194	09/23/19	<0.000	Cadmium (DIS)		O	08/04/15-06/18/19	14	0	<0.00003	0.00003	<0.00003	0		HIGHEST
SC15-194	09/23/19	<0.01	Chromium (DIS)		O	08/04/15-06/18/19	14	0	<0.01	0.01	<0.01	0		HIGHEST
SC15-194	09/23/19	<0.002	Copper (DIS)		O	08/04/15-06/18/19	14	0	<0.002	0.002	<0.002	0		HIGHEST
SC15-194	09/23/19	<0.005	Mercury (DIS)	ug/L	O	08/04/15-06/18/19	14	0	<0.000005	0.0004	<0.005	0.001	4.60	HIGHEST
SC15-194	09/23/19	<0.002	Molybdenum (DIS)		O	08/04/15-06/18/19	14	0	<0.002	0.002	<0.002	0		HIGHEST
SC15-194	09/23/19	<0.001	Nickel (DIS)		O	08/04/15-06/18/19	14	0	<0.001	0.001	<0.001	0		HIGHEST
SC15-194	09/23/19	<0.000	Selenium (DIS)		O	08/04/15-06/18/19	14	1	<0.0002	0.0002	0.0006	0.0001	0.00	LOWEST
SC15-194	09/23/19	<0.000	Silver (DIS)		O	08/04/15-06/18/19	14	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SC15-194	09/23/19	<0.000	Thallium (DIS)		O	08/04/15-06/18/19	14	1	<0.0002	0.0002	0.0008	0.0002	0.00	LOWEST
SC15-194	09/23/19	<0.002	Zinc (DIS)		O	08/04/15-06/18/19	14	4	0.002	0.002	0.004	0.001	0.00	LOWEST
SC15-194	09/23/19	0.001	Arsenic (DIS)		O	08/04/15-06/18/19	14	4	<0.001	0.001	0.003	0.001	0.00	LOWEST
SC15-194	09/23/19	<0.000	Lead (DIS)		O	08/04/15-06/18/19	14	0	<0.0003	0.0003	<0.0003	0		HIGHEST
SC15-194	09/23/19	0.0008	Uranium (DIS)		O	08/04/15-06/18/19	14	2	0.0008	0.007	<0.008	0.0026	2.38	LOWEST
SC15-194	09/23/19	<0.009	Aluminum (DIS)		O	08/04/15-06/18/19	14	2	<0.009	0.01	0.02	0.003	0.33	LOWEST
SC15-194	09/23/19	<0.01	Cobalt (DIS)		O	08/04/15-06/18/19	14	0	<0.01	0.01	<0.01	0		HIGHEST
SC15-194	09/23/19	40	Calcium		O	08/04/15-06/18/19	14	14	37	43	45	2	1.50	
SC15-194	09/23/19	0.035	Barium (DIS)		O	08/04/15-06/18/19	14	14	0.032	0.035	0.039	0.002	0.00	

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SC15-194	09/23/19	0.03	Iron (DIS)		O	08/04/15-06/18/19	14	13	<0.02	0.07	0.17	0.04	1.00	
SC15-194	09/23/19	23	Magnesium		O	08/04/15-06/18/19	14	14	24	25	26	1	2.00	LOWEST
SC15-194	09/23/19	<0.005	Manganese (DIS)		O	08/04/15-06/18/19	14	6	<0.005	0.008	0.027	0.006	0.50	LOWEST
SC15-194	09/23/19	<1	Potassium		O	08/04/15-06/18/19	14	1	<1	1	<1	0		HIGHEST
SC15-194	09/23/19	2	Sodium		O	08/04/15-06/18/19	14	14	2	2	3	0		LOWEST
SC15-194	09/23/19	0.0702	Strontium (DIS)		O	08/04/15-06/18/19	14	14	0.0664	0.0698	0.0759	0.0023	0.17	
SC15-194	09/23/19	19.57	SWL	Feet	O	08/04/15-06/18/19	13	13	17.69	20.08	21.82	1.33	0.38	
SC15-194	09/23/19	<1	Chloride		O	08/04/15-06/18/19	14	0	<1	1	<1	0		HIGHEST
SC15-194	09/23/19	0.3	Fluoride		O	08/04/15-06/18/19	14	14	0.3	0.3	0.4	0		LOWEST
SC15-194	09/23/19	<0.01	N+N		O	08/04/15-06/18/19	14	0	<0.01	0.01	<0.01	0		HIGHEST
SC15-194	09/23/19	7.84	Field pH	s.u.	O	08/04/15-06/18/19	14	14	6.49	7.69	8.1	0.39	0.38	
SC15-194	09/23/19	382	Field SC	umh	O	08/04/15-06/18/19	14	14	358	397	467.2	26	0.58	
SC15-194	09/23/19	225	TDS		O	08/04/15-06/18/19	14	14	207	216	227	6	1.50	
SC15-194	09/23/19	180	Alkalinity		O	08/04/15-06/18/19	14	14	160	177	180	6	0.50	HIGHEST
SC15-194	09/23/19	193	Hardness		O	08/04/15-06/18/19	14	14	193	208	218	6	2.50	LOWEST
SC15-194	09/23/19	<10	TSS		O	08/04/15-06/18/19	14	4	4	11	20	3	0.33	
SC15-194	09/23/19	7.9	Water Temp	Deg	O	08/04/15-06/18/19	14	14	4.5	7.6	17.9	3.4	0.09	
SC15-194	09/23/19	0.46	DO		O	08/04/15-06/18/19	14	14	0.34	3.01	10.1	2.84	0.90	
SC15-194	09/23/19	29	Sulfate		O	08/04/15-06/18/19	14	14	28	32	36	2	1.50	
SC15-194	09/23/19	168.05	EH	Milliv	O	03/22/18-06/18/19	5	5	106.14	189.549	240.79	53.292	0.40	
SC15-198	09/23/19	<0.000	Antimony (DIS)		O	09/16/15-06/18/19	13	0	<0.0005	0.0005	<0.0005	0		HIGHEST
SC15-198	09/23/19	<0.000	Beryllium (DIS)		O	09/16/15-06/18/19	13	0	<0.0008	0.0008	<0.0008	0		HIGHEST
SC15-198	09/23/19	<0.000	Cadmium (DIS)		O	09/16/15-06/18/19	13	0	<0.00003	0.00003	<0.00003	0		HIGHEST
SC15-198	09/23/19	<0.01	Chromium (DIS)		O	09/16/15-06/18/19	13	0	<0.01	0.01	<0.01	0		HIGHEST
SC15-198	09/23/19	<0.002	Copper (DIS)		O	09/16/15-06/18/19	13	0	<0.002	0.002	<0.002	0		HIGHEST
SC15-198	09/23/19	0.005	Mercury (DIS)	ug/L	O	09/16/15-06/18/19	13	5	<0.000005	0.0004	<0.005	0.001	4.60	HIGHEST
SC15-198	09/23/19	<0.002	Molybdenum (DIS)		O	09/16/15-06/18/19	13	0	<0.002	0.002	<0.002	0		HIGHEST
SC15-198	09/23/19	<0.001	Nickel (DIS)		O	09/16/15-06/18/19	13	0	<0.001	0.001	<0.001	0		HIGHEST
SC15-198	09/23/19	0.0002	Selenium (DIS)		O	09/16/15-06/18/19	13	11	0.0002	0.0003	0.0005	0.0001	1.00	LOWEST
SC15-198	09/23/19	<0.000	Silver (DIS)		O	09/16/15-06/18/19	13	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SC15-198	09/23/19	<0.000	Thallium (DIS)		O	09/16/15-06/18/19	13	0	<0.0002	0.0002	<0.0002	0		HIGHEST

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SC15-198	09/23/19	<0.002	Zinc (DIS)		O	09/16/15-06/18/19	13	7	<0.002	0.003	0.006	0.001	1.00	LOWEST
SC15-198	09/23/19	<0.001	Arsenic (DIS)		O	09/16/15-06/18/19	13	1	0.001	0.001	0.001	0		HIGHEST
SC15-198	09/23/19	<0.000	Lead (DIS)		O	09/16/15-06/18/19	13	0	<0.0003	0.0003	<0.0003	0		HIGHEST
SC15-198	09/23/19	0.0007	Uranium (DIS)		O	09/16/15-06/18/19	13	2	0.0007	0.0069	<0.008	0.0027	2.30	LOWEST
SC15-198	09/23/19	<0.009	Aluminum (DIS)		O	09/16/15-06/18/19	13	0	<0.009	0.009	<0.009	0		HIGHEST
SC15-198	09/23/19	<0.01	Cobalt (DIS)		O	09/16/15-06/18/19	13	0	<0.01	0.01	<0.01	0		HIGHEST
SC15-198	09/23/19	46	Calcium		O	09/16/15-06/18/19	13	13	47	49	52	1	3.00	LOWEST
SC15-198	09/23/19	0.365	Barium (DIS)		O	09/16/15-06/18/19	13	13	0.27	0.37	0.421	0.041	0.12	
SC15-198	09/23/19	<0.02	Iron (DIS)		O	09/16/15-06/18/19	13	0	<0.02	0.02	<0.02	0		HIGHEST
SC15-198	09/23/19	25	Magnesium		O	09/16/15-06/18/19	13	13	25	26	29	1	1.00	LOWEST
SC15-198	09/23/19	<0.005	Manganese (DIS)		O	09/16/15-06/18/19	13	0	<0.005	0.005	<0.005	0		HIGHEST
SC15-198	09/23/19	<1	Potassium		O	09/16/15-06/18/19	13	0	<1	1	<1	0		HIGHEST
SC15-198	09/23/19	3	Sodium		O	09/16/15-06/18/19	13	13	3	4	9	2	0.50	LOWEST
SC15-198	09/23/19	0.101	Strontium (DIS)		O	09/16/15-06/18/19	13	13	0.0869	0.096	0.103	0.005	1.00	
SC15-198	09/23/19	40.9	SWL	Feet	O	09/16/15-06/18/19	13	13	31.69	40.4	46.45	4.8	0.10	
SC15-198	09/23/19	2	Chloride		O	09/16/15-06/18/19	13	13	1.6	2	4	1	0.00	
SC15-198	09/23/19	0.1	Fluoride		O	09/16/15-06/18/19	13	13	0.1	0.1	0.2	0		LOWEST
SC15-198	09/23/19	0.6	N+N		O	09/16/15-06/18/19	13	13	0.52	0.6	0.72	0.1	0.00	
SC15-198	09/23/19	7.83	Field pH	s.u.	O	09/16/15-06/18/19	13	13	7.39	7.68	7.93	0.16	0.94	
SC15-198	09/23/19	420	Field SC	umh	O	09/16/15-06/18/19	13	13	416	435	508.7	25	0.60	
SC15-198	09/23/19	236	TDS		O	09/16/15-06/18/19	13	13	223	233	251	8	0.38	
SC15-198	09/23/19	230	Alkalinity		O	09/16/15-06/18/19	13	13	210	222	230	7	1.14	HIGHEST
SC15-198	09/23/19	216	Hardness		O	09/16/15-06/18/19	13	13	222	231	248	8	1.88	LOWEST
SC15-198	09/23/19	<10	TSS		O	09/16/15-06/18/19	13	1	<4	10	10	2	0.00	HIGHEST
SC15-198	09/23/19	7.2	Water Temp	Deg	O	09/16/15-06/18/19	13	13	3.4	7.5	17.5	4.6	0.07	
SC15-198	09/23/19	7.97	DO		O	09/16/15-06/18/19	13	13	4.76	7.76	9.63	1.37	0.15	
SC15-198	09/23/19	6	Sulfate		O	09/16/15-06/18/19	13	13	6	7	9	1	1.00	LOWEST
SC15-198	09/23/19	255.97	EH	Milliv	O	03/22/18-06/18/19	5	5	276.922	354.438	464.96	78.565	1.25	LOWEST
SP-10	09/24/19	<0.000	Antimony (DIS)		O	05/23/18-08/20/19	12	0	<0.0005	0.0005	<0.0005	0		HIGHEST
SP-10	09/24/19	<0.000	Beryllium (DIS)		O	05/23/18-08/20/19	12	0	<0.0008	0.0008	<0.0008	0		HIGHEST
SP-10	09/24/19	<0.000	Cadmium (DIS)		O	05/23/18-08/20/19	12	0	<0.00003	0.00003	<0.00003	0		HIGHEST

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SP-10	09/24/19	<0.01	Chromium (DIS)		O	05/23/18-08/20/19	12	0	<0.01	0.01	<0.01	0		HIGHEST
SP-10	09/24/19	<0.002	Copper (DIS)		O	05/23/18-08/20/19	12	0	<0.002	0.002	<0.002	0		HIGHEST
SP-10	09/24/19	<0.005	Mercury (DIS)	ug/L	O	05/23/18-08/20/19	12	0	<0.000005	0.002	<0.005	0.003	1.00	HIGHEST
SP-10	09/24/19	<0.002	Molybdenum (DIS)		O	05/23/18-08/20/19	12	0	<0.002	0.002	<0.002	0		HIGHEST
SP-10	09/24/19	<0.001	Nickel (DIS)		O	05/23/18-08/20/19	12	0	<0.001	0.001	<0.001	0		HIGHEST
SP-10	09/24/19	0.0003	Selenium (DIS)		O	05/23/18-08/20/19	12	7	<0.0002	0.0003	0.0003	0.0001	0.00	HIGHEST
SP-10	09/24/19	<0.000	Silver (DIS)		O	05/23/18-08/20/19	12	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SP-10	09/24/19	<0.000	Thallium (DIS)		O	05/23/18-08/20/19	12	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SP-10	09/24/19	<0.002	Zinc (DIS)		O	05/23/18-08/20/19	12	0	<0.002	0.002	<0.002	0		HIGHEST
SP-10	09/24/19	<0.001	Arsenic (DIS)		O	05/23/18-08/20/19	12	0	<0.001	0.001	<0.001	0		HIGHEST
SP-10	09/24/19	<0.000	Lead (DIS)		O	05/23/18-08/20/19	12	0	<0.0003	0.0003	<0.0003	0		HIGHEST
SP-10	09/24/19	0.0008	Uranium (DIS)		O	05/23/18-08/20/19	12	6	0.0007	0.0044	<0.008	0.0038	0.95	
SP-10	09/24/19	<0.009	Aluminum (DIS)		O	05/23/18-08/20/19	12	0	<0.009	0.009	<0.009	0		HIGHEST
SP-10	09/24/19	<0.01	Cobalt (DIS)		O	05/23/18-08/20/19	12	0	<0.01	0.01	<0.01	0		HIGHEST
SP-10	09/24/19	55	Calcium		O	05/23/18-08/20/19	12	12	49	56	61	4	0.25	
SP-10	09/24/19	0.055	Barium (DIS)		O	05/23/18-08/20/19	12	12	0.04	0.051	0.056	0.004	1.00	
SP-10	09/24/19	<0.02	Iron (DIS)		O	05/23/18-08/20/19	12	0	<0.02	0.02	<0.02	0		HIGHEST
SP-10	09/24/19	20	Magnesium		O	05/23/18-08/20/19	12	12	17	20	22	2	0.00	
SP-10	09/24/19	<0.005	Manganese (DIS)		O	05/23/18-08/20/19	12	3	<0.005	0.007	0.024	0.006	0.33	LOWEST
SP-10	09/24/19	1	Potassium		O	05/23/18-08/20/19	12	7	<1	1	<1	0		HIGHEST
SP-10	09/24/19	2	Sodium		O	05/23/18-08/20/19	12	12	1	2	2	0		HIGHEST
SP-10	09/24/19	0.12	Strontium (DIS)		O	05/23/18-08/20/19	12	12	0.095	0.11	0.122	0.01	1.00	
SP-10	09/24/19	<1	Chloride		O	05/23/18-08/20/19	12	0	<1	1	<1	0		HIGHEST
SP-10	09/24/19	1.93	Flow	Gallo	O	05/23/18-08/20/19	11	11	0.58	17.09	59.69	21.62	0.70	
SP-10	09/24/19	0.1	Fluoride		O	05/23/18-08/20/19	12	12	0.1	0.1	0.1	0		HIGHEST
SP-10	09/24/19	0.24	N+N		O	05/23/18-08/20/19	12	12	0.06	0.2	0.28	0.06	0.67	
SP-10	09/24/19	8.13	Field pH	s.u.	O	05/23/18-08/20/19	12	12	6.92	7.64	8.1	0.34	1.44	HIGHEST
SP-10	09/24/19	418	Field SC	umh	O	05/23/18-08/20/19	12	12	305	396	434	37	0.59	
SP-10	09/24/19	235	TDS		O	05/23/18-08/20/19	12	12	196	221	235	14	1.00	HIGHEST
SP-10	09/24/19	220	Alkalinity		O	05/23/18-08/20/19	12	12	180	210	220	13	0.77	HIGHEST
SP-10	09/24/19	217	Hardness		O	05/23/18-08/20/19	12	12	193	221	245	16	0.25	

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Data Comparison Summary

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Quarterly Monitoring

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SP-10	09/24/19	12	TSS		O	05/23/18-08/20/19	12	3	<10	20	68 J	20	0.40	
SP-10	09/24/19	8.6	Water Temp	Deg	O	05/23/18-08/20/19	12	12	4.6	7.8	12.2	2.1	0.38	
SP-10	09/24/19	7.98	DO		O	05/23/18-08/20/19	12	12	6.76	8.01	8.93	0.58	0.05	
SP-10	09/24/19	15	Sulfate		O	05/23/18-08/20/19	12	12	8	13	17	3	0.67	
SP-11	09/25/19	<0.000	Antimony (DIS)		O	04/18/18-08/21/19	13	0	<0.0005	0.0005	<0.0005	0		HIGHEST
SP-11	09/25/19	<0.000	Beryllium (DIS)		O	04/18/18-08/21/19	13	0	<0.0008	0.0008	<0.0008	0		HIGHEST
SP-11	09/25/19	<0.000	Cadmium (DIS)		O	04/18/18-08/21/19	13	0	<0.00003	0.00003	<0.00003	0		HIGHEST
SP-11	09/25/19	<0.01	Chromium (DIS)		O	04/18/18-08/21/19	13	0	<0.01	0.01	<0.01	0		HIGHEST
SP-11	09/25/19	<0.002	Copper (DIS)		O	04/18/18-08/21/19	13	1	<0.002	0.002	0.003	0		LOWEST
SP-11	09/25/19	<0.005	Mercury (DIS)	ug/L	O	04/18/18-08/21/19	13	0	<0.000005	0.002	<0.005	0.003	1.00	HIGHEST
SP-11	09/25/19	<0.002	Molybdenum (DIS)		O	04/18/18-08/21/19	13	0	<0.002	0.002	<0.002	0		HIGHEST
SP-11	09/25/19	<0.001	Nickel (DIS)		O	04/18/18-08/21/19	13	0	<0.001	0.001	<0.001	0		HIGHEST
SP-11	09/25/19	<0.000	Selenium (DIS)		O	04/18/18-08/21/19	13	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SP-11	09/25/19	<0.000	Silver (DIS)		O	04/18/18-08/21/19	13	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SP-11	09/25/19	<0.000	Thallium (DIS)		O	04/18/18-08/21/19	13	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SP-11	09/25/19	<0.002	Zinc (DIS)		O	04/18/18-08/21/19	13	3	<0.002	0.002	0.004	0.001	0.00	LOWEST
SP-11	09/25/19	0.006	Arsenic (DIS)		O	04/18/18-08/21/19	13	13	0.005	0.006	0.008	0.001	0.00	
SP-11	09/25/19	<0.000	Lead (DIS)		O	04/18/18-08/21/19	13	0	<0.0003	0.0003	<0.0003	0		HIGHEST
SP-11	09/25/19	0.0004	Uranium (DIS)		O	04/18/18-08/21/19	13	6	0.0003	0.0045	<0.008	0.004	1.02	
SP-11	09/25/19	0.045	Aluminum (DIS)		O	04/18/18-08/21/19	13	13	0.017	0.082	0.479	0.129	0.29	
SP-11	09/25/19	<0.01	Cobalt (DIS)		O	04/18/18-08/21/19	13	0	<0.01	0.01	<0.01	0		HIGHEST
SP-11	09/25/19	23	Calcium		O	04/18/18-08/21/19	13	13	21	23	24	1	0.00	
SP-11	09/25/19	0.307	Barium (DIS)		O	04/18/18-08/21/19	13	13	0.265	0.29	0.313	0.014	1.21	
SP-11	09/25/19	<0.02	Iron (DIS)		O	04/18/18-08/21/19	13	6	<0.02	0.04	0.17	0.04	0.50	LOWEST
SP-11	09/25/19	9	Magnesium		O	04/18/18-08/21/19	13	13	7	8	9	1	1.00	HIGHEST
SP-11	09/25/19	<0.005	Manganese (DIS)		O	04/18/18-08/21/19	13	0	<0.005	0.005	<0.005	0		HIGHEST
SP-11	09/25/19	1	Potassium		O	04/18/18-08/21/19	13	13	1	1	2	0		LOWEST
SP-11	09/25/19	4	Sodium		O	04/18/18-08/21/19	13	13	3	3	4	1	1.00	HIGHEST
SP-11	09/25/19	0.109	Strontium (DIS)		O	04/18/18-08/21/19	13	12	0.0856	0.1	0.104	0.005	1.80	HIGHEST
SP-11	09/25/19	<1	Chloride		O	04/18/18-08/21/19	13	0	<1	1	<1	0		HIGHEST
SP-11	09/25/19	0.1	Fluoride		O	04/18/18-08/21/19	13	13	0.1	0.2	0.2	0.1	1.00	LOWEST

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SP-11	09/25/19	0.24	N+N		O	04/18/18-08/21/19	13	13	0.22	0.25	0.31	0.03	0.33	
SP-11	09/25/19	7.23	Field pH	s.u.	O	04/18/18-08/21/19	13	13	6.28	7.46	7.98	0.49	0.47	
SP-11	09/25/19	194	Field SC	umh	O	04/18/18-08/21/19	13	13	171	187	196	8	0.88	
SP-11	09/25/19	120	TDS		O	04/18/18-08/21/19	13	13	99	118	133	10	0.20	
SP-11	09/25/19	96	Alkalinity		O	04/18/18-08/21/19	13	13	82	92	95	3	1.33	HIGHEST
SP-11	09/25/19	94	Hardness		O	04/18/18-08/21/19	13	13	81	91	95	4	0.75	
SP-11	09/25/19	<10	TSS		O	04/18/18-08/21/19	13	1	<10	10	<10	0		HIGHEST
SP-11	09/25/19	7.7	Water Temp	Deg	O	04/18/18-08/21/19	13	13	5.6	6.4	7.4	0.5	2.60	HIGHEST
SP-11	09/25/19	7.3	DO		O	04/18/18-08/21/19	13	13	6.09	7.1	8.36	0.6	0.33	
SP-11	09/25/19	7	Sulfate		O	04/18/18-08/21/19	13	13	5	7	8	1	0.00	
SP-12	09/25/19	<0.000	Antimony (DIS)		O	04/18/18-08/21/19	14	0	<0.0005	0.0005	<0.0005	0		HIGHEST
SP-12	09/25/19	<0.000	Beryllium (DIS)		O	04/18/18-08/21/19	14	0	<0.0008	0.0008	<0.0008	0		HIGHEST
SP-12	09/25/19	<0.000	Cadmium (DIS)		O	04/18/18-08/21/19	14	0	<0.00003	0.00003	<0.00003	0		HIGHEST
SP-12	09/25/19	<0.01	Chromium (DIS)		O	04/18/18-08/21/19	14	0	<0.01	0.01	<0.01	0		HIGHEST
SP-12	09/25/19	<0.002	Copper (DIS)		O	04/18/18-08/21/19	14	0	<0.002	0.002	<0.002	0		HIGHEST
SP-12	09/25/19	<0.005	Mercury (DIS)	ug/L	O	04/18/18-08/21/19	14	1	<0.000005	0.003	<0.005	0.003	0.67	HIGHEST
SP-12	09/25/19	<0.002	Molybdenum (DIS)		O	04/18/18-08/21/19	14	0	<0.002	0.002	<0.002	0		HIGHEST
SP-12	09/25/19	<0.001	Nickel (DIS)		O	04/18/18-08/21/19	14	0	<0.001	0.001	<0.001	0		HIGHEST
SP-12	09/25/19	<0.000	Selenium (DIS)		O	04/18/18-08/21/19	14	10	0.0002	0.0002	0.0003	0		LOWEST
SP-12	09/25/19	<0.000	Silver (DIS)		O	04/18/18-08/21/19	14	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SP-12	09/25/19	<0.000	Thallium (DIS)		O	04/18/18-08/21/19	14	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SP-12	09/25/19	<0.002	Zinc (DIS)		O	04/18/18-08/21/19	14	3	<0.002	0.002	0.004	0.001	0.00	LOWEST
SP-12	09/25/19	<0.001	Arsenic (DIS)		O	04/18/18-08/21/19	14	0	<0.001	0.001	<0.001	0		HIGHEST
SP-12	09/25/19	<0.000	Lead (DIS)		O	04/18/18-08/21/19	14	0	<0.0003	0.0003	<0.0003	0		HIGHEST
SP-12	09/25/19	0.0006	Uranium (DIS)		O	04/18/18-08/21/19	14	8	0.0005	0.0038	<0.008	0.0038	0.84	
SP-12	09/25/19	<0.009	Aluminum (DIS)		O	04/18/18-08/21/19	14	1	<0.009	0.009	0.014	0.001	0.00	LOWEST
SP-12	09/25/19	<0.01	Cobalt (DIS)		O	04/18/18-08/21/19	14	0	<0.01	0.01	<0.01	0		HIGHEST
SP-12	09/25/19	55	Calcium		O	04/18/18-08/21/19	14	14	47	54	61	4	0.25	
SP-12	09/25/19	0.184	Barium (DIS)		O	04/18/18-08/21/19	14	14	0.157	0.176	0.192	0.01	0.80	
SP-12	09/25/19	0.02	Iron (DIS)		O	04/18/18-08/21/19	14	5	<0.02	0.05	0.29	0.07	0.43	LOWEST
SP-12	09/25/19	24	Magnesium		O	04/18/18-08/21/19	14	14	20	23	26	2	0.50	

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SP-12	09/25/19	<0.005	Manganese (DIS)		O	04/18/18-08/21/19	14	2	<0.005	0.007	0.02	0.005	0.40	LOWEST
SP-12	09/25/19	1	Potassium		O	04/18/18-08/21/19	14	14	1	1	2	0		LOWEST
SP-12	09/25/19	2	Sodium		O	04/18/18-08/21/19	14	14	2	2	3	0		LOWEST
SP-12	09/25/19	0.116	Strontium (DIS)		O	04/18/18-08/21/19	14	13	0.0968	0.107	0.115	0.006	1.50	HIGHEST
SP-12	09/25/19	9	Chloride		O	04/18/18-08/21/19	14	14	5	8	10	2	0.50	
SP-12	09/25/19	0.2	Fluoride		O	04/18/18-08/21/19	14	14	0.2	0.2	0.2	0		HIGHEST
SP-12	09/25/19	0.24	N+N		O	04/18/18-08/21/19	14	14	0.12	0.38	0.69	0.15	0.93	
SP-12	09/25/19	7.17	Field pH	s.u.	O	04/18/18-08/21/19	13	13	6.76	7.63	8.1	0.35	1.31	
SP-12	09/25/19	433	Field SC	umh	O	04/18/18-08/21/19	13	13	400	436	473	20	0.15	
SP-12	09/25/19	255	TDS		O	04/18/18-08/21/19	14	14	230	245	262	10	1.00	
SP-12	09/25/19	210	Alkalinity		O	04/18/18-08/21/19	14	14	180	202	220	11	0.73	
SP-12	09/25/19	238	Hardness		O	04/18/18-08/21/19	14	14	200	231	258	15	0.47	
SP-12	09/25/19	<10	TSS		O	04/18/18-08/21/19	14	8	<10	41	187	52	0.60	LOWEST
SP-12	09/25/19	7.8	Water Temp	Deg	O	04/18/18-08/21/19	13	13	5.1	6.6	8.7	1.1	1.09	
SP-12	09/25/19	7.29	DO		O	04/18/18-08/21/19	13	13	3.32	6.52	10.38	2.07	0.37	
SP-12	09/25/19	20	Sulfate		O	04/18/18-08/21/19	14	14	13	23	28	4	0.75	
SP-3	09/24/19	<0.000	Antimony (DIS)		O	07/20/11-08/20/19	30	0	<0.0005	0.0007	<0.003	0.0006	0.33	LOWEST
SP-3	09/24/19	<0.000	Beryllium (DIS)		O	07/20/11-08/20/19	30	1	<0.0008	0.0008	<0.001	0.0001	0.00	LOWEST
SP-3	09/24/19	<0.000	Cadmium (DIS)		O	07/20/11-08/20/19	30	2	<0.00003	0.00004	0.00015	0.00002	0.50	LOWEST
SP-3	09/24/19	<0.01	Chromium (DIS)		O	07/20/11-08/20/19	30	2	0.001	0.01	0.02	0		
SP-3	09/24/19	<0.002	Copper (DIS)		O	07/20/11-08/20/19	30	13	<0.001	0.004	0.026	0.005	0.40	
SP-3	09/24/19	<0.005	Mercury (DIS)	ug/L	O	07/20/11-08/20/19	29	13	<0.000005	0.001	0.02	0.004	1.00	
SP-3	09/24/19	<0.002	Molybdenum (DIS)		O	07/20/11-08/20/19	30	0	<0.001	0.002	<0.005	0.001	0.00	
SP-3	09/24/19	<0.001	Nickel (DIS)		O	07/20/11-08/20/19	30	14	<0.001	0.003	0.015	0.003	0.67	LOWEST
SP-3	09/24/19	<0.000	Selenium (DIS)		O	07/20/11-08/20/19	30	6	<0.0002	0.0003	<0.001	0.0002	0.50	LOWEST
SP-3	09/24/19	<0.000	Silver (DIS)		O	07/20/11-08/20/19	30	0	<0.0002	0.0002	<0.0005	0.0001	0.00	LOWEST
SP-3	09/24/19	<0.000	Thallium (DIS)		O	07/20/11-08/20/19	30	1	<0.0002	0.0002	<0.0002	0		HIGHEST
SP-3	09/24/19	<0.002	Zinc (DIS)		O	07/20/11-08/20/19	30	11	<0.002	0.005	0.029	0.005	0.60	LOWEST
SP-3	09/24/19	0.001	Arsenic (DIS)		O	07/20/11-08/20/19	30	28	0.001	0.002	0.005	0.001	1.00	LOWEST
SP-3	09/24/19	<0.000	Lead (DIS)		O	07/20/11-08/20/19	30	8	<0.0003	0.0005	0.0036	0.0006	0.33	LOWEST
SP-3	09/24/19	<0.000	Uranium (DIS)		O	07/20/11-08/20/19	30	1	<0.0002	0.0059	<0.008	0.0035	1.63	LOWEST

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SP-3	09/24/19	0.065	Aluminum (DIS)		O	07/20/11-08/20/19	31	31	0.033	1.261	10.8 D	2.283	0.52	
SP-3	09/24/19	<0.01	Cobalt (DIS)		O	07/20/11-08/20/19	30	0	<0.005	0.01	<0.01	0		HIGHEST
SP-3	09/24/19	27	Calcium		O	07/20/11-08/20/19	31	31	14	24	32	5	0.60	
SP-3	09/24/19	0.315	Barium (DIS)		O	07/20/11-08/20/19	30	30	0.205	0.287	0.53	0.057	0.49	
SP-3	09/24/19	0.03	Iron (DIS)		O	07/20/11-08/20/19	30	30	0.02	0.72	6.89	1.39	0.50	
SP-3	09/24/19	6	Magnesium		O	07/20/11-08/20/19	31	31	3	5	7	1	1.00	
SP-3	09/24/19	<0.005	Manganese (DIS)		O	07/20/11-08/20/19	30	10	0.001	0.009	0.068	0.012	0.33	
SP-3	09/24/19	1	Potassium		O	07/20/11-08/20/19	31	31	1	1	3	1	0.00	LOWEST
SP-3	09/24/19	3	Sodium		O	07/20/11-08/20/19	31	31	2	2	3	1	1.00	HIGHEST
SP-3	09/24/19	0.0851	Strontium (DIS)		O	07/20/11-08/20/19	30	28	0.0439	0.0725	<0.1	0.0161	0.78	
SP-3	09/24/19	<1	Chloride		O	07/20/11-08/20/19	31	5	1	1	2	0		LOWEST
SP-3	09/24/19	0.31	Flow	Gallo	O	07/20/11-08/20/19	29	28	0.009	1.59	8.1	1.93	0.66	
SP-3	09/24/19	0.1	Fluoride		O	07/20/11-08/20/19	31	31	0.1	0.1	0.1	0		HIGHEST
SP-3	09/24/19	0.22	N+N		O	07/20/11-08/20/19	31	31	0.1	0.28	0.43	0.07	0.86	
SP-3	09/24/19	7.2	Field pH	s.u.	O	07/20/11-08/20/19	30	30	6.2	7.4	8.66	0.6	0.33	
SP-3	09/24/19	195	Field SC	umh	O	07/20/11-08/20/19	31	31	103	166	223	38	0.76	
SP-3	09/24/19	134	TDS		O	07/20/11-08/20/19	31	31	113	140	214	22	0.27	
SP-3	09/24/19	93	Alkalinity		O	07/20/11-08/20/19	31	31	44	77	100	20	0.80	
SP-3	09/24/19	90	Hardness		O	07/20/11-08/20/19	31	31	48	81	109	18	0.50	
SP-3	09/24/19	<10	TSS		O	08/28/13-08/20/19	29	17	<10	43	191	50	0.66	LOWEST
SP-3	09/24/19	9.4	Water Temp	Deg	O	07/20/11-08/20/19	31	31	1.7	8	17	3.9	0.36	
SP-3	09/24/19	8.87	DO		O	07/20/11-08/20/19	31	31	5.02	9.56	19.38	2.45	0.28	
SP-3	09/24/19	6	Sulfate		O	07/20/11-08/20/19	31	31	3	5	7	1	1.00	
SP-4	09/24/19	<0.000	Antimony (DIS)		O	07/21/11-08/21/19	52	0	<0.0005	0.0006	<0.003	0.0006	0.17	LOWEST
SP-4	09/24/19	<0.000	Beryllium (DIS)		O	07/21/11-08/21/19	52	0	<0.0008	0.0008	<0.001	0		LOWEST
SP-4	09/24/19	<0.000	Cadmium (DIS)		O	07/21/11-08/21/19	52	0	<0.00003	0.00003	<0.00008	0.00001	0.00	LOWEST
SP-4	09/24/19	<0.01	Chromium (DIS)		O	07/21/11-08/21/19	52	0	<0.001	0.01	<0.01	0		HIGHEST
SP-4	09/24/19	<0.002	Copper (DIS)		O	07/21/11-08/21/19	52	1	<0.001	0.002	0.017	0.002	0.00	
SP-4	09/24/19	<0.005	Mercury (DIS)	ug/L	O	07/21/11-08/21/19	51	1	<0.000005	0.001	<0.005	0.002	2.00	HIGHEST
SP-4	09/24/19	<0.002	Molybdenum (DIS)		O	07/21/11-08/21/19	52	0	<0.001	0.002	<0.005	0.001	0.00	
SP-4	09/24/19	<0.001	Nickel (DIS)		O	07/21/11-08/21/19	52	0	<0.001	0.002	<0.01	0.002	0.50	LOWEST

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Quarterly Monitoring

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SP-4	09/24/19	0.0004	Selenium (DIS)		O	07/21/11-08/21/19	52	48	<0.0002	0.0004	<0.001	0.0002	0.00	
SP-4	09/24/19	<0.000	Silver (DIS)		O	07/21/11-08/21/19	52	0	<0.0002	0.0002	<0.0005	0.0001	0.00	LOWEST
SP-4	09/24/19	0.0003	Thallium (DIS)		O	07/21/11-08/21/19	52	52	0.0002	0.0003	0.0004	0.0001	0.00	
SP-4	09/24/19	<0.002	Zinc (DIS)		O	07/21/11-08/21/19	52	14	0.002	0.003	<0.01	0.002	0.50	LOWEST
SP-4	09/24/19	<0.001	Arsenic (DIS)		O	07/21/11-08/21/19	52	0	<0.001	0.001	<0.003	0		LOWEST
SP-4	09/24/19	<0.000	Lead (DIS)		O	07/21/11-08/21/19	52	0	<0.0003	0.0003	<0.0005	0		LOWEST
SP-4	09/24/19	0.0005	Uranium (DIS)		O	07/21/11-08/21/19	52	12	0.0004	0.0063	<0.008	0.0032	1.81	
SP-4	09/24/19	<0.009	Aluminum (DIS)		O	07/21/11-08/21/19	53	5	<0.009	0.011	0.031	0.006	0.33	LOWEST
SP-4	09/24/19	<0.01	Cobalt (DIS)		O	07/21/11-08/21/19	52	0	<0.005	0.01	<0.01	0		HIGHEST
SP-4	09/24/19	47	Calcium		O	07/21/11-08/21/19	53	53	42	51	56	3	1.33	
SP-4	09/24/19	0.115	Barium (DIS)		O	07/21/11-08/21/19	52	52	0.101	0.112	0.121	0.005	0.60	
SP-4	09/24/19	<0.02	Iron (DIS)		O	07/21/11-08/21/19	52	13	<0.02	0.03	0.14	0.02	0.50	LOWEST
SP-4	09/24/19	24	Magnesium		O	07/21/11-08/21/19	53	53	24	26	29	1	2.00	LOWEST
SP-4	09/24/19	0.006	Manganese (DIS)		O	07/21/11-08/21/19	52	26	0.004	0.007	0.038	0.005	0.20	
SP-4	09/24/19	2	Potassium		O	07/21/11-08/21/19	53	53	1	2	2	0		HIGHEST
SP-4	09/24/19	2	Sodium		O	07/21/11-08/21/19	53	53	2	2	2	0		HIGHEST
SP-4	09/24/19	0.0738	Strontium (DIS)		O	07/21/11-08/21/19	52	48	0.0641	0.0739	<0.1	0.0072	0.01	
SP-4	09/24/19	<1	Chloride		O	07/21/11-08/21/19	53	14	1	1	1	0		HIGHEST
SP-4	09/24/19	6.73	Flow	Gallo	O	07/21/11-08/21/19	45	45	NF-ICE	8.92	50.27	10.41	0.21	
SP-4	09/24/19	0.2	Fluoride		O	07/21/11-08/21/19	53	53	0.2	0.2	0.3	0		LOWEST
SP-4	09/24/19	0.29	N+N		O	07/21/11-08/21/19	53	53	0.18	0.25	0.35	0.03	1.33	
SP-4	09/24/19	7.72	Field pH	s.u.	O	07/21/11-08/21/19	52	52	6.95	7.7	8.63	0.29	0.07	
SP-4	09/24/19	416	Field SC	umh	O	07/21/11-08/21/19	53	53	162	424	481	47	0.17	
SP-4	09/24/19	238	TDS		O	07/21/11-08/21/19	53	53	202	247	272	14	0.64	
SP-4	09/24/19	200	Alkalinity		O	07/21/11-08/21/19	53	53	190	201	210	5	0.20	
SP-4	09/24/19	216	Hardness		O	07/21/11-08/21/19	53	53	208	235	255	12	1.58	
SP-4	09/24/19	14	TSS		O	08/28/13-08/21/19	50	30	5	50	890 D	129	0.28	
SP-4	09/24/19	7.3	Water Temp	Deg	O	07/21/11-08/21/19	52	52	0.11	6.3	12.2	2.1	0.48	
SP-4	09/24/19	9.48	DO		O	07/21/11-08/21/19	53	53	6.7	9.91	13.95	1.36	0.32	
SP-4	09/24/19	31	Sulfate		O	07/21/11-08/21/19	53	53	10	36	45	7	0.71	
SP-6	09/24/19	<0.000	Antimony (DIS)		O	10/12/11-08/20/19	45	0	<0.0005	0.0006	<0.003	0.0005	0.20	LOWEST

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SP-6	09/24/19	<0.000	Beryllium (DIS)		O	10/12/11-08/20/19	45	0	<0.0008	0.0008	<0.001	0		LOWEST
SP-6	09/24/19	<0.000	Cadmium (DIS)		O	10/12/11-08/20/19	45	0	<0.00003	0.00003	<0.00008	0.00001	0.00	LOWEST
SP-6	09/24/19	<0.01	Chromium (DIS)		O	10/12/11-08/20/19	45	0	<0.001	0.01	<0.01	0		HIGHEST
SP-6	09/24/19	<0.002	Copper (DIS)		O	10/12/11-08/20/19	45	0	<0.001	0.002	<0.002	0		HIGHEST
SP-6	09/24/19	<0.005	Mercury (DIS)	ug/L	O	10/12/11-08/20/19	44	1	<0.000005	0.001	<0.005	0.002	2.00	HIGHEST
SP-6	09/24/19	<0.002	Molybdenum (DIS)		O	10/12/11-08/20/19	45	0	<0.001	0.002	<0.005	0.001	0.00	
SP-6	09/24/19	<0.001	Nickel (DIS)		O	10/12/11-08/20/19	45	1	<0.001	0.001	<0.01	0.002	0.00	LOWEST
SP-6	09/24/19	0.0002	Selenium (DIS)		O	10/12/11-08/20/19	45	13	<0.0002	0.0002	<0.001	0.0002	0.00	LOWEST
SP-6	09/24/19	<0.000	Silver (DIS)		O	10/12/11-08/20/19	45	0	<0.0002	0.0002	<0.0005	0.0001	0.00	LOWEST
SP-6	09/24/19	0.0006	Thallium (DIS)		O	10/12/11-08/20/19	45	45	0.0004	0.0005	0.0007	0.0001	1.00	
SP-6	09/24/19	<0.002	Zinc (DIS)		O	10/12/11-08/20/19	45	7	0.001	0.002	<0.01	0.002	0.00	
SP-6	09/24/19	<0.001	Arsenic (DIS)		O	10/12/11-08/20/19	45	0	<0.001	0.001	<0.003	0		LOWEST
SP-6	09/24/19	<0.000	Lead (DIS)		O	10/12/11-08/20/19	45	1	<0.0003	0.0003	<0.0005	0		LOWEST
SP-6	09/24/19	0.0005	Uranium (DIS)		O	10/12/11-08/20/19	45	15	<0.0003	0.0053	<0.008	0.0037	1.30	
SP-6	09/24/19	<0.009	Aluminum (DIS)		O	10/12/11-08/20/19	46	19	0.004	0.02	0.16	0.03	0.37	
SP-6	09/24/19	<0.01	Cobalt (DIS)		O	10/12/11-08/20/19	45	0	<0.005	0.01	<0.01	0		HIGHEST
SP-6	09/24/19	36	Calcium		O	10/12/11-08/20/19	46	46	32	35	38	2	0.50	
SP-6	09/24/19	0.214	Barium (DIS)		O	10/12/11-08/20/19	45	45	0.168	0.192	0.217	0.01	2.20	
SP-6	09/24/19	<0.02	Iron (DIS)		O	10/12/11-08/20/19	45	14	<0.02	0.03	0.19	0.03	0.33	LOWEST
SP-6	09/24/19	13	Magnesium		O	10/12/11-08/20/19	46	46	12	13	16	1	0.00	
SP-6	09/24/19	<0.005	Manganese (DIS)		O	10/12/11-08/20/19	45	7	<0.001	0.009	0.102	0.018	0.22	
SP-6	09/24/19	<1	Potassium		O	10/12/11-08/20/19	46	9	1	1	1	0		HIGHEST
SP-6	09/24/19	2	Sodium		O	10/12/11-08/20/19	46	46	2	2	2	0		HIGHEST
SP-6	09/24/19	0.0818	Strontium (DIS)		O	10/12/11-08/20/19	45	43	0.0654	0.0734	<0.1	0.0064	1.31	
SP-6	09/24/19	1	Chloride		O	10/12/11-08/20/19	46	11	1	1	2	0		LOWEST
SP-6	09/24/19	0.1	Fluoride		O	10/12/11-08/20/19	46	46	0.1	0.2	0.2	0		LOWEST
SP-6	09/24/19	0.43	N+N		O	10/12/11-08/20/19	46	46	0.31	0.39	0.68	0.07	0.57	
SP-6	09/24/19	7.6	Field pH	s.u.	O	10/12/11-08/20/19	45	45	5.81	7.4	8.72	0.7	0.29	
SP-6	09/24/19	292	Field SC	umh	O	10/12/11-08/20/19	46	46	188	268	327	19	1.26	
SP-6	09/24/19	176	TDS		O	10/12/11-08/20/19	46	46	145	161	188	8	1.88	
SP-6	09/24/19	150	Alkalinity		O	10/12/11-08/20/19	46	46	120	135	160	7	2.14	

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SP-6	09/24/19	144	Hardness		O	10/12/11-08/20/19	46	46	129	141	160	7	0.43	
SP-6	09/24/19	<10	TSS		O	08/28/13-08/20/19	44	14	<4	34	216 H	49	0.49	
SP-6	09/24/19	8.2	Water Temp	Deg	O	10/12/11-08/20/19	45	45	4.4	7.4	10.29	1.4	0.57	
SP-6	09/24/19	9.08	DO		O	10/12/11-08/20/19	46	46	6.7	15.79	282	40.16	0.17	
SP-6	09/24/19	10	Sulfate		O	10/12/11-08/20/19	46	46	7	9	12	2	0.50	
SP-7	09/25/19	<0.000	Antimony (DIS)		O	03/26/15-08/21/19	49	0	<0.0005	0.0005	<0.0005	0		HIGHEST
SP-7	09/25/19	<0.000	Beryllium (DIS)		O	03/26/15-08/21/19	49	0	<0.0008	0.0008	<0.0008	0		HIGHEST
SP-7	09/25/19	<0.000	Cadmium (DIS)		O	03/26/15-08/21/19	49	0	<0.00003	0.00003	<0.00003	0		HIGHEST
SP-7	09/25/19	<0.01	Chromium (DIS)		O	03/26/15-08/21/19	49	0	<0.01	0.01	<0.01	0		HIGHEST
SP-7	09/25/19	<0.002	Copper (DIS)		O	03/26/15-08/21/19	49	2	<0.002	0.002	0.015	0.002	0.00	LOWEST
SP-7	09/25/19	<0.005	Mercury (DIS)	ug/L	O	03/26/15-08/21/19	49	1	<0.000005	0.001	<0.005	0.002	2.00	HIGHEST
SP-7	09/25/19	<0.002	Molybdenum (DIS)		O	03/26/15-08/21/19	49	0	<0.002	0.002	<0.002	0		HIGHEST
SP-7	09/25/19	<0.001	Nickel (DIS)		O	03/26/15-08/21/19	49	0	<0.001	0.001	<0.001	0		HIGHEST
SP-7	09/25/19	0.0003	Selenium (DIS)		O	03/26/15-08/21/19	49	45	<0.0002	0.0003	0.0004	0.0001	0.00	
SP-7	09/25/19	<0.000	Silver (DIS)		O	03/26/15-08/21/19	49	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SP-7	09/25/19	0.0011	Thallium (DIS)		O	03/26/15-08/21/19	49	49	0.0007	0.001	0.0011	0.0001	1.00	HIGHEST
SP-7	09/25/19	<0.002	Zinc (DIS)		O	03/26/15-08/21/19	49	2	<0.002	0.002	0.003	0		LOWEST
SP-7	09/25/19	0.004	Arsenic (DIS)		O	03/26/15-08/21/19	49	49	0.003	0.004	0.004	0		HIGHEST
SP-7	09/25/19	<0.000	Lead (DIS)		O	03/26/15-08/21/19	49	1	<0.0003	0.0003	0.0006	0		LOWEST
SP-7	09/25/19	0.0009	Uranium (DIS)		O	03/26/15-08/21/19	49	8	0.0008	0.0068	<0.008	0.0027	2.19	
SP-7	09/25/19	<0.009	Aluminum (DIS)		O	03/26/15-08/21/19	50	2	<0.009	0.016	0.311	0.043	0.16	LOWEST
SP-7	09/25/19	<0.01	Cobalt (DIS)		O	03/26/15-08/21/19	49	0	<0.01	0.01	<0.01	0		HIGHEST
SP-7	09/25/19	43	Calcium		O	03/26/15-08/21/19	50	50	40	43	46	2	0.00	
SP-7	09/25/19	0.116	Barium (DIS)		O	03/26/15-08/21/19	49	49	0.1	0.112	0.122	0.004	1.00	
SP-7	09/25/19	<0.02	Iron (DIS)		O	03/26/15-08/21/19	49	4	<0.02	0.03	0.36	0.05	0.20	LOWEST
SP-7	09/25/19	15	Magnesium		O	03/26/15-08/21/19	50	50	13	15	16	1	0.00	
SP-7	09/25/19	<0.005	Manganese (DIS)		O	03/26/15-08/21/19	49	1	<0.005	0.005	<0.005	0		HIGHEST
SP-7	09/25/19	3	Potassium		O	03/26/15-08/21/19	50	50	2	3	3	0		HIGHEST
SP-7	09/25/19	5	Sodium		O	03/26/15-08/21/19	50	50	4	5	5	0		HIGHEST
SP-7	09/25/19	0.174	Strontium (DIS)		O	03/26/15-08/21/19	49	48	0.15	0.166	0.181	0.006	1.33	
SP-7	09/25/19	2	Chloride		O	03/26/15-08/21/19	50	50	1	2	2	0		HIGHEST

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SP-7	09/25/19	15.26	Flow	Gallo	O	03/26/15-08/21/19	44	44	6.7	24.99	136	25.28	0.38	
SP-7	09/25/19	0.3	Fluoride		O	03/26/15-08/21/19	50	50	0.3	0.3	0.4	0		LOWEST
SP-7	09/25/19	0.34	N+N		O	03/26/15-08/21/19	50	50	0.27 J	0.31	0.41	0.03	1.00	
SP-7	09/25/19	7.26	Field pH	s.u.	O	03/26/15-08/21/19	49	49	6.17	7.4	8.18	0.33	0.42	
SP-7	09/25/19	336	Field SC	umh	O	03/26/15-08/21/19	50	50	196	323	354	29	0.45	
SP-7	09/25/19	192	TDS		O	03/26/15-08/21/19	50	50	173	187	200	7	0.71	
SP-7	09/25/19	170	Alkalinity		O	03/26/15-08/21/19	50	50	160	166	170	5	0.80	HIGHEST
SP-7	09/25/19	168	Hardness		O	03/26/15-08/21/19	50	50	153	167	178	6	0.17	
SP-7	09/25/19	<10	TSS		O	03/26/15-08/21/19	50	7	<4	14	146	20	0.20	
SP-7	09/25/19	7.4	Water Temp	Deg	O	03/26/15-08/21/19	49	49	5.07	6.6	7.9	0.7	1.14	
SP-7	09/25/19	2.92	DO		O	03/26/15-08/21/19	50	50	2	3.92	10.98	1.65	0.61	
SP-7	09/25/19	10	Sulfate		O	03/26/15-08/21/19	50	50	7	10	12	1	0.00	
SW-1	09/23/19	<0.000	Antimony (TRC)		O	05/24/11-08/21/19	74	0	<0.0005	0.0008	<0.005	0.0008	0.37	LOWEST
SW-1	09/23/19	<0.000	Beryllium (TRC)		O	05/24/11-08/21/19	74	0	<0.0008	0.0008	<0.001	0.0001	0.00	LOWEST
SW-1	09/23/19	<0.000	Cadmium (TRC)		O	05/24/11-08/21/19	74	4	<0.00003	0.00004	0.0002	0.00002	0.50	LOWEST
SW-1	09/23/19	<0.01	Chromium (TRC)		O	05/24/11-08/21/19	74	2	<0.001	0.01	<0.01	0		HIGHEST
SW-1	09/23/19	<0.002	Copper (TRC)		O	05/24/11-08/21/19	74	5	<0.001	0.002	0.003	0		
SW-1	09/23/19	0.008	Mercury (TRC)	ug/L	O	05/24/11-08/21/19	74	11	<0.000005	0.001	0.011	0.002	3.50	
SW-1	09/23/19	<0.002	Molybdenum (TRC)		O	05/24/11-08/21/19	74	0	<0.001	0.002	<0.005	0.001	0.00	
SW-1	09/23/19	<0.001	Nickel (TRC)		O	05/24/11-08/21/19	74	11	<0.001	0.002	<0.01	0.002	0.50	LOWEST
SW-1	09/23/19	<0.000	Selenium (TRC)		O	05/24/11-08/21/19	74	0	<0.0002	0.0003	<0.001	0.0002	0.50	LOWEST
SW-1	09/23/19	<0.000	Silver (TRC)		O	05/24/11-08/21/19	74	0	<0.0002	0.0002	<0.0005	0.0001	0.00	LOWEST
SW-1	09/23/19	<0.000	Thallium (TRC)		O	05/24/11-08/21/19	74	0	<0.002	0.0002	<0.0002	0		HIGHEST
SW-1	09/23/19	<0.004	Zinc (TRC)		O	05/24/11-08/21/19	74	26	<0.002	0.003	<0.01	0.002	0.50	
SW-1	09/23/19	<0.001	Arsenic (TRC)		O	05/24/11-08/21/19	74	12	<0.001	0.001	<0.003	0.001	0.00	LOWEST
SW-1	09/23/19	<0.000	Lead (TRC)		O	05/24/11-08/21/19	74	14	<0.0003	0.0004	0.0015	0.0002	0.50	LOWEST
SW-1	09/23/19	0.0004	Uranium (TRC)		O	05/24/11-08/21/19	74	15	0.0002	0.0061	<0.008	0.0033	1.73	
SW-1	09/23/19	<0.009	Aluminum (DIS)		O	05/24/11-08/21/19	74	27	<0.009	0.041	0.333	0.073	0.44	LOWEST
SW-1	09/23/19	<0.01	Cobalt (TRC)		O	05/24/11-08/21/19	74	0	<0.005	0.01	<0.01	0		HIGHEST
SW-1	09/23/19	44	Calcium		O	05/24/11-08/21/19	74	74	23	43	55	8	0.12	
SW-1	09/23/19	0.116	Barium (TRC)		O	05/24/11-08/21/19	74	74	0.081	0.104	0.127	0.01	1.20	

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Data Comparison Summary

Report Date: November 7, 2019

Quarterly Monitoring

STATION	SAMPLE DATE	RESULT mg/L	PARAMETER		QC Code	COMPARISON PERIOD	N	# OF DET	MIN mg/L	MEAN: mg/L	MAX mg/L	STDDARD DEVIATION	STD DEVS FROM MEAN	RELATION TO DATABASE PERIOD
SW-1	09/23/19	0.22	Iron (TRC)		O	05/24/11-08/21/19	74	74	0.11	0.3	1.86	0.3	0.27	
SW-1	09/23/19	12	Magnesium		O	05/24/11-08/21/19	74	74	6	11	15	2	0.50	
SW-1	09/23/19	0.021	Manganese (TRC)		O	05/24/11-08/21/19	74	74	0.009	0.018	0.053 J	0.008	0.38	
SW-1	09/23/19	0.014	Phosphorus		O	05/16/14-08/21/19	60	55	<0.003	0.015	0.09	0.013	0.08	
SW-1	09/23/19	2	Potassium		O	05/24/11-08/21/19	74	70	1	1	3	0		
SW-1	09/23/19	2	Sodium		O	05/24/11-08/21/19	74	74	1	2	3	0		
SW-1	09/23/19	0.125	Strontium (TRC)		O	05/24/11-08/21/19	74	71	0.0779	0.117	0.147	0.015	0.53	
SW-1	09/23/19	1	Chloride		O	05/24/11-08/21/19	74	73	1	1	5	1	0.00	LOWEST
SW-1	09/23/19	30.28	Flow	Cubi	O	05/24/11-08/21/19	57	57	NF-ICE	64.8	613 E	96.02	0.36	
SW-1	09/23/19	0.1	Fluoride		O	05/24/11-08/21/19	74	23	<0.1	0.1	0.2	0		LOWEST
SW-1	09/23/19	<0.01	N+N		O	05/24/11-08/21/19	74	34	<0.01	0.04	0.15	0.04	0.75	LOWEST
SW-1	09/23/19	8.64	Field pH	s.u.	O	05/24/11-08/21/19	76	76	5.3	7.88	8.71	0.67	1.13	
SW-1	09/23/19	309	Field SC	umh	O	05/24/11-08/21/19	77	77	176	291	363	53	0.34	
SW-1	09/23/19	191 D	TDS		O	05/24/11-08/21/19	74	74	107	171	227	26	0.77	
SW-1	09/23/19	170	Alkalinity		O	05/24/11-08/21/19	74	74	87	156	200	28	0.50	
SW-1	09/23/19	160	Hardness		O	05/24/11-08/21/19	74	73	<7	152	199	34	0.24	
SW-1	09/23/19	5	TSS		O	05/30/12-08/21/19	70	28	<4	9	43	7	0.57	
SW-1	09/23/19	11.8	Water Temp	Deg	O	05/24/11-08/21/19	77	77	-0.97	4.8	14.5	4.8	1.46	
SW-1	09/23/19	9.59	DO		O	05/24/11-08/21/19	77	77	3.91	11.14	15	1.99	0.78	
SW-1	09/23/19	6	Sulfate		O	05/24/11-08/21/19	74	74	2	5	18 J	2	0.50	
SW-1	09/23/19	0.12	Total N Pers		O	04/29/15-08/21/19	48	44	<0.003	0.16	1.12 J	0.16	0.25	
SW-1	09/23/19	0.98	Staff Gauge	Feet	O	05/24/11-08/21/19	48	48	0.49	1.41	13.3	1.81	0.24	
SW-11	09/24/19	<0.000	Antimony (TRC)		O	05/25/11-06/18/19	31	0	<0.0005	0.0011	<0.005	0.0012	0.50	LOWEST
SW-11	09/24/19	<0.000	Beryllium (TRC)		O	05/25/11-06/18/19	31	0	<0.0008	0.0008	<0.001	0.0001	0.00	LOWEST
SW-11	09/24/19	<0.000	Cadmium (TRC)		O	05/25/11-06/18/19	31	3	<0.00003	0.00004	<0.00008	0.00002	0.50	LOWEST
SW-11	09/24/19	<0.01	Chromium (TRC)		O	05/25/11-06/18/19	31	0	<0.001	0.01	<0.01	0		HIGHEST
SW-11	09/24/19	<0.002	Copper (TRC)		O	05/25/11-06/18/19	31	5	0.001	0.002	0.003	0		
SW-11	09/24/19	<0.005	Mercury (TRC)	ug/L	O	05/25/11-06/18/19	31	4	<0.000005	0.0002	<0.005	0.001	4.80	HIGHEST
SW-11	09/24/19	<0.002	Molybdenum (TRC)		O	05/25/11-06/18/19	31	0	<0.001	0.003	<0.005	0.001	1.00	
SW-11	09/24/19	<0.001	Nickel (TRC)		O	05/25/11-06/18/19	31	3	<0.001	0.003	<0.01	0.004	0.50	LOWEST
SW-11	09/24/19	<0.000	Selenium (TRC)		O	05/25/11-06/18/19	31	4	<0.0002	0.0004	<0.001	0.0003	0.67	LOWEST

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Quarterly Monitoring

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SW-11	09/24/19	<0.000	Silver (TRC)		O	05/25/11-06/18/19	31	0	<0.0002	0.0003	<0.0005	0.0001	1.00	LOWEST
SW-11	09/24/19	<0.000	Thallium (TRC)		O	05/25/11-06/18/19	31	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SW-11	09/24/19	<0.005	Zinc (TRC)		O	05/25/11-06/18/19	31	18	<0.002	0.005	0.016	0.004	0.00	
SW-11	09/24/19	<0.001	Arsenic (TRC)		O	05/25/11-06/18/19	31	2	<0.001	0.001	<0.003	0.001	0.00	LOWEST
SW-11	09/24/19	<0.000	Lead (TRC)		O	05/25/11-06/18/19	31	10	<0.0003	0.0005	0.0031	0.0006	0.33	LOWEST
SW-11	09/24/19	0.0009	Uranium (TRC)		O	05/25/11-06/18/19	31	10	0.0007	0.0057	<0.008	0.0034	1.41	
SW-11	09/24/19	<0.009	Aluminum (DIS)		O	05/25/11-06/18/19	32	6	<0.009	0.08	1.36 D	0.246	0.29	LOWEST
SW-11	09/24/19	<0.01	Cobalt (TRC)		O	05/25/11-06/18/19	31	0	<0.005	0.01	<0.01	0		HIGHEST
SW-11	09/24/19	53	Calcium		O	05/25/11-06/18/19	32	32	36	50	60	6	0.50	
SW-11	09/24/19	0.11	Barium (TRC)		O	05/25/11-06/18/19	31	31	0.09	0.1	0.13	0.01	1.00	
SW-11	09/24/19	0.16	Iron (TRC)		O	05/25/11-06/18/19	31	31	0.04	0.36	2.1	0.43	0.47	
SW-11	09/24/19	23	Magnesium		O	05/25/11-06/18/19	32	32	16	23	29	3	0.00	
SW-11	09/24/19	0.01	Manganese (TRC)		O	05/25/11-06/18/19	31	20	<0.005	0.01	0.076	0.02	0.00	
SW-11	09/24/19	0.012	Phosphorus		O	06/10/14-06/18/19	21	21	0.009	0.026	0.06	0.014	1.00	
SW-11	09/24/19	1	Potassium		O	05/25/11-06/18/19	32	30	1	1	2	0		LOWEST
SW-11	09/24/19	3	Sodium		O	05/25/11-06/18/19	32	32	2	3	3	0		HIGHEST
SW-11	09/24/19	0.186	Strontium (TRC)		O	05/25/11-06/18/19	31	31	0.1	0.17	0.2	0.023	0.70	
SW-11	09/24/19	1	Chloride		O	05/25/11-06/18/19	32	24	1	1	2	0		LOWEST
SW-11	09/24/19	0.93	Flow	Cubi	O	05/25/11-06/18/19	24	24	NF-ICE	2.25	21.4	4.26	0.31	
SW-11	09/24/19	0.2	Fluoride		O	05/25/11-06/18/19	32	32	0.1	0.2	0.2	0		HIGHEST
SW-11	09/24/19	0.08	N+N		O	05/25/11-06/18/19	32	29	<0.01	0.08	0.24	0.07	0.00	
SW-11	09/24/19	8.42	Field pH	s.u.	O	05/25/11-06/18/19	32	32	7.45	8.21	8.69	0.29	0.72	
SW-11	09/24/19	424	Field SC	umh	O	05/25/11-06/18/19	32	32	312	404	497	41	0.49	
SW-11	09/24/19	243 D	TDS		O	05/25/11-06/18/19	32	32	166	231	282 D	24	0.50	
SW-11	09/24/19	220	Alkalinity		O	05/25/11-06/18/19	32	32	160	204	250	20	0.80	
SW-11	09/24/19	228	Hardness		O	05/25/11-06/18/19	32	32	156	218	267	27	0.37	
SW-11	09/24/19	7	TSS		O	05/29/12-06/18/19	28	12	<4	14	68 D	18	0.39	
SW-11	09/24/19	8.1	Water Temp	Deg	O	05/25/11-06/18/19	32	32	-0.4	5.9	16.3	5.6	0.39	
SW-11	09/24/19	9.41	DO		O	05/25/11-06/18/19	32	32	7.03	10.98	15.4	1.94	0.81	
SW-11	09/24/19	22	Sulfate		O	05/25/11-06/18/19	32	32	9	21	46	8	0.12	
SW-11	09/24/19	0.16	Total N Pers		O	06/24/15-06/18/19	16	16	0.09	0.22	0.51	0.11	0.55	

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		Feet							Feet	Feet	Feet			
SW-11	09/24/19	0.35	Staff Gauge	Feet	O	08/25/11-06/18/19	22	22	0.2	0.52	0.91	0.18	0.94	
SW-14	09/23/19	<0.000	Antimony (TRC)		O	04/13/16-08/21/19	35	0	<0.0005	0.0005	<0.0005	0		HIGHEST
SW-14	09/23/19	<0.000	Beryllium (TRC)		O	04/13/16-08/21/19	35	0	<0.0008	0.0008	<0.0008	0		HIGHEST
SW-14	09/23/19	<0.000	Cadmium (TRC)		O	04/13/16-08/21/19	35	2	<0.00003	0.00003	<0.00003	0		HIGHEST
SW-14	09/23/19	<0.01	Chromium (TRC)		O	04/13/16-08/21/19	35	0	<0.01	0.01	<0.01	0		HIGHEST
SW-14	09/23/19	<0.002	Copper (TRC)		O	04/13/16-08/21/19	35	0	<0.002	0.002	<0.002	0		HIGHEST
SW-14	09/23/19	0.006	Mercury (TRC)	ug/L	O	04/13/16-08/21/19	35	1	<0.000005	0.001	<0.005	0.002	2.50	HIGHEST
SW-14	09/23/19	<0.002	Molybdenum (TRC)		O	04/13/16-08/21/19	35	0	<0.002	0.002	<0.002	0		HIGHEST
SW-14	09/23/19	0.001	Nickel (TRC)		O	04/13/16-08/21/19	35	1	<0.001	0.001	0.002	0		LOWEST
SW-14	09/23/19	<0.000	Selenium (TRC)		O	04/13/16-08/21/19	35	1	<0.0002	0.0002	<0.0004	0		LOWEST
SW-14	09/23/19	<0.000	Silver (TRC)		O	04/13/16-08/21/19	35	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SW-14	09/23/19	<0.000	Thallium (TRC)		O	04/13/16-08/21/19	35	0	<0.002	0.0002	<0.0002	0		HIGHEST
SW-14	09/23/19	<0.004	Zinc (TRC)		O	04/13/16-08/21/19	35	5	<0.002	0.003	<0.04	0.006	0.17	
SW-14	09/23/19	<0.001	Arsenic (TRC)		O	04/13/16-08/21/19	35	0	<0.001	0.001	<0.001	0		HIGHEST
SW-14	09/23/19	<0.000	Lead (TRC)		O	04/13/16-08/21/19	35	1	<0.0003	0.0003	0.0005	0		LOWEST
SW-14	09/23/19	0.0005	Uranium (TRC)		O	04/13/16-08/21/19	35	7	0.0004	0.0065	<0.008	0.003	2.00	
SW-14	09/23/19	<0.009	Aluminum (DIS)		O	04/13/16-08/21/19	35	3	<0.009	0.011	0.047	0.007	0.29	LOWEST
SW-14	09/23/19	<0.01	Cobalt (TRC)		O	04/13/16-08/21/19	35	0	<0.01	0.01	<0.01	0		HIGHEST
SW-14	09/23/19	52	Calcium		O	04/13/16-08/21/19	35	35	38	54	61	5	0.40	
SW-14	09/23/19	0.121	Barium (TRC)		O	04/13/16-08/21/19	35	35	0.081	0.112	0.13	0.011	0.82	
SW-14	09/23/19	0.11	Iron (TRC)		O	04/13/16-08/21/19	35	32	0.02	0.08	0.43	0.08	0.38	
SW-14	09/23/19	19	Magnesium		O	04/13/16-08/21/19	35	35	12	19	23	2	0.00	
SW-14	09/23/19	0.006	Manganese (TRC)		O	04/13/16-08/21/19	35	9	<0.005	0.005	0.009	0.001	1.00	
SW-14	09/23/19	0.009	Phosphorus		O	04/13/16-08/21/19	35	29	<0.003	0.013	0.180	0.03	0.13	
SW-14	09/23/19	1	Potassium		O	04/13/16-08/21/19	35	34	1	1	2	0		LOWEST
SW-14	09/23/19	2	Sodium		O	04/13/16-08/21/19	35	35	2	3	3	1	1.00	LOWEST
SW-14	09/23/19	0.127	Strontium (TRC)		O	04/13/16-08/21/19	35	35	0.0807	0.121	0.136	0.012	0.50	
SW-14	09/23/19	2	Chloride		O	04/13/16-08/21/19	35	35	1	2	4	1	0.00	
SW-14	09/23/19	1.17	Flow	Cubi	O	04/13/16-08/21/19	29	29	NF-ICE	2.37	11.75	2.97	0.40	
SW-14	09/23/19	0.2	Fluoride		O	04/13/16-08/21/19	35	35	0.1	0.2	0.2	0		HIGHEST
SW-14	09/23/19	0.01	N+N		O	04/13/16-08/21/19	35	33	0.01	0.1	0.27	0.08	1.12	LOWEST

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SW-14	09/23/19	8.38	Field pH	s.u.	O	04/13/16-08/21/19	33	33	6.07	7.93	8.48	0.47	0.96	
SW-14	09/23/19	402	Field SC	umh	O	04/13/16-08/21/19	34	34	263	384	439	42	0.43	
SW-14	09/23/19	239 D	TDS		O	04/13/16-08/21/19	35	35	175	225	266 D	16	0.88	
SW-14	09/23/19	220	Alkalinity		O	04/13/16-08/21/19	35	35	160	206	220	18	0.78	HIGHEST
SW-14	09/23/19	207	Hardness		O	04/13/16-08/21/19	35	35	153	212	239	18	0.28	
SW-14	09/23/19	5	TSS		O	04/13/16-08/21/19	35	5	4	5	15	2	0.00	
SW-14	09/23/19	13.3	Water Temp	Deg	O	04/13/16-08/21/19	34	34	-0.91	6.7	14.7	5	1.32	
SW-14	09/23/19	10.15	DO		O	04/13/16-08/21/19	34	34	8.22	10.73	15.01	1.64	0.35	
SW-14	09/23/19	7	Sulfate		O	04/13/16-08/21/19	35	35	6	9	19	3	0.67	
SW-14	09/23/19	0.13	Total N Pers		O	04/13/16-08/21/19	32	31	<0.003	0.23	1.25 J	0.21	0.48	
SW-14	09/23/19	0.59	Staff Gauge	Feet	O	04/13/16-08/21/19	21	21	0.3	0.5	0.8	0.14	0.64	
SW-17	09/23/19	<0.000	Antimony (TRC)		O	01/17/18-08/21/19	17	0	<0.0005	0.0005	<0.0005	0		HIGHEST
SW-17	09/23/19	<0.000	Beryllium (TRC)		O	01/17/18-08/21/19	17	0	<0.0008	0.0008	<0.0008	0		HIGHEST
SW-17	09/23/19	<0.000	Cadmium (TRC)		O	01/17/18-08/21/19	17	1	<0.00003	0.00004	0.00017	0.00003	0.33	LOWEST
SW-17	09/23/19	<0.01	Chromium (TRC)		O	01/17/18-08/21/19	17	0	<0.01	0.01	<0.01	0		HIGHEST
SW-17	09/23/19	<0.002	Copper (TRC)		O	01/17/18-08/21/19	17	0	<0.002	0.002	<0.002	0		HIGHEST
SW-17	09/23/19	0.006	Mercury (TRC)	ug/L	O	01/17/18-08/21/19	17	3	<0.000005	0.002	0.007	0.003	1.33	
SW-17	09/23/19	<0.002	Molybdenum (TRC)		O	01/17/18-08/21/19	17	0	<0.002	0.002	<0.002	0		HIGHEST
SW-17	09/23/19	<0.001	Nickel (TRC)		O	01/17/18-08/21/19	17	0	<0.001	0.001	<0.002	0		LOWEST
SW-17	09/23/19	<0.000	Selenium (TRC)		O	01/17/18-08/21/19	17	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SW-17	09/23/19	<0.000	Silver (TRC)		O	01/17/18-08/21/19	17	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SW-17	09/23/19	<0.000	Thallium (TRC)		O	01/17/18-08/21/19	17	3	0.000	0.0002	<0.0002	0		HIGHEST
SW-17	09/23/19	<0.004	Zinc (TRC)		O	01/17/18-08/21/19	17	9	<0.002	0.003	0.008	0.002	0.50	
SW-17	09/23/19	<0.001	Arsenic (TRC)		O	01/17/18-08/21/19	17	0	<0.001	0.001	<0.001	0		HIGHEST
SW-17	09/23/19	<0.000	Lead (TRC)		O	01/17/18-08/21/19	17	1	<0.0003	0.0003	<0.0003	0		HIGHEST
SW-17	09/23/19	0.0006	Uranium (TRC)		O	01/17/18-08/21/19	17	6	0.0005	0.0054	<0.008	0.0036	1.33	
SW-17	09/23/19	<0.009	Aluminum (DIS)		O	01/17/18-08/21/19	17	2	<0.009	0.01	0.021 J	0.003	0.33	LOWEST
SW-17	09/23/19	<0.01	Cobalt (TRC)		O	01/17/18-08/21/19	17	0	<0.01	0.01	<0.01	0		HIGHEST
SW-17	09/23/19	52	Calcium		O	01/17/18-08/21/19	17	17	44	55	63	5	0.60	
SW-17	09/23/19	0.174	Barium (TRC)		O	01/17/18-08/21/19	17	17	0.108	0.149	0.168	0.015	1.67	HIGHEST
SW-17	09/23/19	0.17	Iron (TRC)		O	01/17/18-08/21/19	17	17	0.07	0.18	0.37	0.1	0.10	

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Quarterly Monitoring

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SW-17	09/23/19	23	Magnesium		O	01/17/18-08/21/19	17	17	14	23	25	3	0.00	
SW-17	09/23/19	0.016	Manganese (TRC)		O	01/17/18-08/21/19	17	17	0.008	0.024	0.051	0.012	0.67	
SW-17	09/23/19	0.007	Phosphorus		O	01/17/18-08/21/19	17	17	0.004	0.016	0.088 J	0.019	0.47	
SW-17	09/23/19	1	Potassium		O	01/17/18-08/21/19	17	14	1	1	1	0		HIGHEST
SW-17	09/23/19	3	Sodium		O	01/17/18-08/21/19	17	17	2	2	3	1	1.00	HIGHEST
SW-17	09/23/19	0.154	Strontium (TRC)		O	01/17/18-08/21/19	17	17	0.111 L	0.146	0.172 L	0.017	0.47	
SW-17	09/23/19	6	Chloride		O	01/17/18-08/21/19	17	17	3	5	14	3	0.33	
SW-17	09/23/19	0.24	Flow	Cubi	O	01/17/18-08/21/19	12	12	NF-ICE	0.45	1.8	0.57	0.37	
SW-17	09/23/19	0.2	Fluoride		O	01/17/18-08/21/19	17	17	0.1	0.2	0.2	0		HIGHEST
SW-17	09/23/19	0.04	N+N		O	01/17/18-08/21/19	17	16	<0.01	0.09	0.19	0.06	0.83	
SW-17	09/23/19	8.35	Field pH	s.u.	O	01/17/18-08/21/19	16	16	7.47	8.08	8.41	0.23	1.17	
SW-17	09/23/19	450	Field SC	umh	O	01/17/18-08/21/19	16	16	319	430	487	41	0.49	
SW-17	09/23/19	274 D	TDS		O	01/17/18-08/21/19	17	17	197 D	255	314 D	30	0.63	
SW-17	09/23/19	220	Alkalinity		O	01/17/18-08/21/19	17	17	150	203	230	18	0.94	
SW-17	09/23/19	226	Hardness		O	01/17/18-08/21/19	17	17	167	232	262	23	0.26	
SW-17	09/23/19	<4	TSS		O	01/17/18-08/21/19	17	8	4	6	19 J	5	0.40	LOWEST
SW-17	09/23/19	10.5	Water Temp	Deg	O	01/17/18-08/21/19	16	16	0.02	6.5	13.9	5.1	0.78	
SW-17	09/23/19	9.4	DO		O	01/17/18-08/21/19	16	16	8.46	10.3	12.9	1.1	0.82	
SW-17	09/23/19	23	Sulfate		O	01/17/18-08/21/19	17	17	12	28	44	8	0.62	
SW-17	09/23/19	0.14	Total N Pers		O	04/12/18-08/21/19	14	14	0.12	0.25	0.49	0.1	1.10	
SW-2	09/23/19	<0.000	Antimony (TRC)		O	05/24/11-08/21/19	74	0	<0.0005	0.0008	<0.005	0.0008	0.37	LOWEST
SW-2	09/23/19	<0.000	Beryllium (TRC)		O	05/24/11-08/21/19	74	0	<0.0008	0.0008	<0.001	0.0001	0.00	LOWEST
SW-2	09/23/19	<0.000	Cadmium (TRC)		O	05/24/11-08/21/19	74	3	<0.00003	0.00003	<0.00008	0.00001	0.00	LOWEST
SW-2	09/23/19	<0.01	Chromium (TRC)		O	05/24/11-08/21/19	74	1	<0.001	0.01	<0.01	0		HIGHEST
SW-2	09/23/19	<0.002	Copper (TRC)		O	05/24/11-08/21/19	74	5	<0.001	0.002	0.004	0		
SW-2	09/23/19	<0.005	Mercury (TRC)	ug/L	O	05/24/11-08/21/19	74	12	<0.000005	0.001	0.01	0.002	2.00	
SW-2	09/23/19	<0.002	Molybdenum (TRC)		O	05/24/11-08/21/19	74	0	<0.001	0.002	<0.005	0.001	0.00	
SW-2	09/23/19	<0.001	Nickel (TRC)		O	05/24/11-08/21/19	74	12	<0.001	0.002	<0.01	0.002	0.50	LOWEST
SW-2	09/23/19	<0.000	Selenium (TRC)		O	05/24/11-08/21/19	74	0	<0.0002	0.0003	<0.001	0.0002	0.50	LOWEST
SW-2	09/23/19	<0.000	Silver (TRC)		O	05/24/11-08/21/19	74	0	<0.0002	0.0002	<0.0005	0.0001	0.00	LOWEST
SW-2	09/23/19	<0.000	Thallium (TRC)		O	05/24/11-08/21/19	74	0	<0.002	0.0002	<0.0002	0		HIGHEST

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Quarterly Monitoring

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SW-2	09/23/19	<0.004	Zinc (TRC)		O	05/24/11-08/21/19	74	22	<0.002	0.004	0.014	0.003	0.00	
SW-2	09/23/19	<0.001	Arsenic (TRC)		O	05/24/11-08/21/19	74	1	<0.001	0.001	<0.003	0.001	0.00	LOWEST
SW-2	09/23/19	<0.000	Lead (TRC)		O	05/24/11-08/21/19	74	14	<0.0003	0.0004	0.0017	0.0002	0.50	LOWEST
SW-2	09/23/19	0.0003	Uranium (TRC)		O	05/24/11-08/21/19	74	13	0.0002	0.0061	<0.008	0.0033	1.76	
SW-2	09/23/19	<0.009	Aluminum (DIS)		O	05/24/11-08/21/19	74	32	<0.009	0.041	0.39	0.071	0.45	LOWEST
SW-2	09/23/19	<0.01	Cobalt (TRC)		O	05/24/11-08/21/19	74	0	<0.005	0.01	<0.01	0		HIGHEST
SW-2	09/23/19	44	Calcium		O	05/24/11-08/21/19	74	74	21	43	58	8	0.12	
SW-2	09/23/19	0.102	Barium (TRC)		O	05/24/11-08/21/19	74	74	0.07	0.094	0.128	0.012	0.67	
SW-2	09/23/19	0.12	Iron (TRC)		O	05/24/11-08/21/19	74	74	0.09	0.29	2.49	0.36	0.47	
SW-2	09/23/19	11	Magnesium		O	05/24/11-08/21/19	74	74	5	11	15	2	0.00	
SW-2	09/23/19	0.008	Manganese (TRC)		O	05/24/11-08/21/19	74	74	0.006	0.013	0.116	0.014	0.36	
SW-2	09/23/19	0.006	Phosphorus		O	05/16/14-08/21/19	60	51	0.003	0.015	0.182 J	0.025	0.36	
SW-2	09/23/19	1	Potassium		O	05/24/11-08/21/19	74	68	1	1	2	0		LOWEST
SW-2	09/23/19	2	Sodium		O	05/24/11-08/21/19	74	74	1	2	3	0		
SW-2	09/23/19	0.132	Strontium (TRC)		O	05/24/11-08/21/19	74	72	0.0818	0.12	0.15	0.015	0.80	
SW-2	09/23/19	1	Chloride		O	05/24/11-08/21/19	74	72	1	1	5	1	0.00	LOWEST
SW-2	09/23/19	24.32	Flow	Cubi	O	05/24/11-08/21/19	49	49	NF-ICE	43.16	250 E	50.16	0.38	
SW-2	09/23/19	<0.1	Fluoride		O	05/24/11-08/21/19	74	1	<0.1	0.1	0.4	0		LOWEST
SW-2	09/23/19	<0.01	N+N		O	05/24/11-08/21/19	74	34	<0.01	0.04	0.12	0.04	0.75	LOWEST
SW-2	09/23/19	8.62	Field pH	s.u.	O	05/24/11-08/21/19	75	75	NM	7.82	8.73	1.05	0.76	
SW-2	09/23/19	309	Field SC	umh	O	05/24/11-08/21/19	76	76	156	283	388	54	0.48	
SW-2	09/23/19	187 D	TDS		O	05/24/11-08/21/19	74	74	112	167	223	25	0.80	
SW-2	09/23/19	170	Alkalinity		O	05/24/11-08/21/19	74	74	80	153	200	28	0.61	
SW-2	09/23/19	158	Hardness		O	05/24/11-08/21/19	74	73	<7	151	202	34	0.21	
SW-2	09/23/19	<4	TSS		O	05/30/12-08/21/19	70	20	<4	10	105	13	0.46	LOWEST
SW-2	09/23/19	9.9	Water Temp	Deg	O	05/24/11-08/21/19	76	76	-1	4.6	15.8	5	1.06	
SW-2	09/23/19	9.86	DO		O	05/24/11-08/21/19	76	76	6.35	11.15	16.18	1.73	0.75	
SW-2	09/23/19	5	Sulfate		O	05/24/11-08/21/19	74	74	2	5	9	2	0.00	
SW-2	09/23/19	0.07	Total N Pers		O	04/29/15-08/21/19	48	42	<0.003	0.17	1.39 J	0.26	0.38	
SW-2	09/23/19	0.4	Staff Gauge	Feet	O	05/24/11-08/21/19	43	43	0.21	0.8	1.75	0.4	1.00	
SW-3	09/23/19	<0.000	Antimony (TRC)		O	05/24/11-08/20/19	32	0	<0.0005	0.001	<0.005	0.0012	0.42	LOWEST

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SW-3	09/23/19	<0.000	Beryllium (TRC)		O	05/24/11-08/20/19	32	0	<0.0008	0.0008	<0.001	0.0001	0.00	LOWEST
SW-3	09/23/19	<0.000	Cadmium (TRC)		O	05/24/11-08/20/19	32	0	<0.00003	0.00004	<0.00008	0.00002	0.50	LOWEST
SW-3	09/23/19	<0.01	Chromium (TRC)		O	05/24/11-08/20/19	32	0	<0.001	0.01	<0.01	0		HIGHEST
SW-3	09/23/19	<0.002	Copper (TRC)		O	05/24/11-08/20/19	32	4	0.001	0.002	0.003	0		
SW-3	09/23/19	<0.005	Mercury (TRC)	ug/L	O	05/24/11-08/20/19	32	2	<0.000005	0.001	<0.005	0.002	2.00	HIGHEST
SW-3	09/23/19	<0.002	Molybdenum (TRC)		O	05/24/11-08/20/19	32	0	<0.001	0.003	<0.005	0.001	1.00	
SW-3	09/23/19	<0.001	Nickel (TRC)		O	05/24/11-08/20/19	32	0	<0.001	0.002	<0.01	0.003	0.33	LOWEST
SW-3	09/23/19	<0.000	Selenium (TRC)		O	05/24/11-08/20/19	32	3	<0.0002	0.0004	<0.001	0.0003	0.67	LOWEST
SW-3	09/23/19	<0.000	Silver (TRC)		O	05/24/11-08/20/19	32	0	<0.0002	0.0003	<0.0005	0.0001	1.00	LOWEST
SW-3	09/23/19	<0.000	Thallium (TRC)		O	05/24/11-08/20/19	32	3	<0.0002	0.0002	0.0004	0		LOWEST
SW-3	09/23/19	<0.004	Zinc (TRC)		O	05/24/11-08/20/19	32	18	<0.002	0.005	0.033 J	0.006	0.17	
SW-3	09/23/19	<0.001	Arsenic (TRC)		O	05/24/11-08/20/19	32	0	<0.001	0.001	<0.003	0.001	0.00	LOWEST
SW-3	09/23/19	<0.000	Lead (TRC)		O	05/24/11-08/20/19	32	15	<0.0003	0.0006	0.0031	0.0007	0.43	LOWEST
SW-3	09/23/19	0.0006	Uranium (TRC)		O	05/24/11-08/20/19	32	12	0.0005	0.0052	<0.008	0.0036	1.28	
SW-3	09/23/19	<0.009	Aluminum (DIS)		O	05/24/11-08/20/19	32	5	<0.009	0.014	0.07	0.012	0.42	LOWEST
SW-3	09/23/19	<0.01	Cobalt (TRC)		O	05/24/11-08/20/19	32	0	<0.005	0.01	<0.01	0		HIGHEST
SW-3	09/23/19	49	Calcium		O	05/24/11-08/20/19	32	32	31	46	52	4	0.75	
SW-3	09/23/19	0.171	Barium (TRC)		O	05/24/11-08/20/19	32	32	0.122	0.15	0.176	0.014	1.50	
SW-3	09/23/19	0.05	Iron (TRC)		O	05/24/11-08/20/19	32	32	0.03 B	0.21	1.08	0.23	0.70	
SW-3	09/23/19	24	Magnesium		O	05/24/11-08/20/19	32	32	15	23	25	2	0.50	
SW-3	09/23/19	<0.005	Manganese (TRC)		O	05/24/11-08/20/19	32	11	<0.005	0.014	0.2	0.035	0.26	LOWEST
SW-3	09/23/19	0.007	Phosphorus		O	06/10/14-08/20/19	23	22	0.004	0.013	0.035	0.006	1.00	
SW-3	09/23/19	1	Potassium		O	05/24/11-08/20/19	32	25	1	1	2	0		LOWEST
SW-3	09/23/19	2	Sodium		O	05/24/11-08/20/19	32	32	2	2	2	0		HIGHEST
SW-3	09/23/19	0.126	Strontium (TRC)		O	05/24/11-08/20/19	32	29	0.0838	0.108	0.123 D	0.011	1.64	HIGHEST
SW-3	09/23/19	4	Chloride		O	05/24/11-08/20/19	32	30	<1	2	4	1	2.00	HIGHEST
SW-3	09/23/19	0.069	Flow	Cubi	O	05/24/11-08/20/19	29	29	0.034	0.353	4.9	0.888	0.32	
SW-3	09/23/19	0.2	Fluoride		O	05/24/11-08/20/19	32	32	0.1	0.2	0.2	0		HIGHEST
SW-3	09/23/19	0.03	N+N		O	05/24/11-08/20/19	32	26	0.01	0.05	0.12	0.03	0.67	
SW-3	09/23/19	8.43	Field pH	s.u.	O	05/24/11-08/20/19	33	33	7.92	8.29	8.7	0.16	0.88	
SW-3	09/23/19	417	Field SC	umh	O	05/24/11-08/20/19	33	33	269	379	423	37	1.03	

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Quarterly Monitoring

STATION	SAMPLE DATE	RESULT mg/L	PARAMETER		QC Code	COMPARISON PERIOD	N	# OF DET	MIN mg/L	MEAN: mg/L	MAX mg/L	STDDARD DEVIATION	STD DEVS FROM MEAN	RELATION TO DATABASE PERIOD
SW-3	09/23/19	255 D	TDS		O	05/24/11-08/20/19	32	32	152	220	255 D	20	1.75	HIGHEST
SW-3	09/23/19	210	Alkalinity		O	05/24/11-08/20/19	32	32	150	197	210	14	0.93	HIGHEST
SW-3	09/23/19	224	Hardness		O	05/24/11-08/20/19	32	32	139	208	234	19	0.84	
SW-3	09/23/19	<4	TSS		O	05/30/12-08/20/19	29	13	<4	7	14	3	1.00	LOWEST
SW-3	09/23/19	9.6	Water Temp	Deg	O	05/24/11-08/20/19	33	33	NM	8	14.5	4.8	0.33	
SW-3	09/23/19	9.09	DO		O	05/24/11-08/20/19	33	33	5.95	9.96	12.87	1.45	0.60	
SW-3	09/23/19	19	Sulfate		O	05/24/11-08/20/19	32	32	5	17	26	5	0.40	
SW-3	09/23/19	0.09	Total N Pers		O	06/24/15-08/20/19	20	19	<0.04	0.16	0.6	0.11	0.64	
SW-3	09/23/19	0.17	Staff Gauge	Feet	O	08/25/11-07/24/19	18	18	0.11	0.4	0.96	0.23	1.00	
SW-4	09/23/19	<0.000	Antimony (TRC)		O	07/24/19-08/20/19	2	0	<0.0005	0.0005	<0.0005	0		HIGHEST
SW-4	09/23/19	<0.000	Beryllium (TRC)		O	07/24/19-08/20/19	2	0	<0.0008	0.0008	<0.0008	0		HIGHEST
SW-4	09/23/19	<0.000	Cadmium (TRC)		O	07/24/19-08/20/19	2	0	<0.00003	0.00003	<0.00003	0		HIGHEST
SW-4	09/23/19	<0.01	Chromium (TRC)		O	07/24/19-08/20/19	2	0	<0.01	0.01	<0.01	0		HIGHEST
SW-4	09/23/19	<0.002	Copper (TRC)		O	07/24/19-08/20/19	2	0	<0.002	0.002	<0.002	0		HIGHEST
SW-4	09/23/19	0.006	Mercury (TRC)	ug/L	O	07/24/19-08/20/19	2	0	<0.005	0.005	<0.005	0		HIGHEST
SW-4	09/23/19	<0.002	Molybdenum (TRC)		O	07/24/19-08/20/19	2	0	<0.002	0.002	<0.002	0		HIGHEST
SW-4	09/23/19	<0.001	Nickel (TRC)		O	07/24/19-08/20/19	2	0	<0.001	0.001	<0.001	0		HIGHEST
SW-4	09/23/19	<0.000	Selenium (TRC)		O	07/24/19-08/20/19	2	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SW-4	09/23/19	<0.000	Silver (TRC)		O	07/24/19-08/20/19	2	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SW-4	09/23/19	<0.000	Thallium (TRC)		O	07/24/19-08/20/19	2	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SW-4	09/23/19	<0.004	Zinc (TRC)		O	07/24/19-08/20/19	2	0	<0.002	0.011	<0.02	0.013	0.54	
SW-4	09/23/19	<0.001	Arsenic (TRC)		O	07/24/19-08/20/19	2	0	<0.001	0.001	<0.001	0		HIGHEST
SW-4	09/23/19	<0.000	Lead (TRC)		O	07/24/19-08/20/19	2	0	<0.0003	0.0003	<0.0003	0		HIGHEST
SW-4	09/23/19	0.0008	Uranium (TRC)		O	07/24/19-08/20/19	2	2	0.0007	0.0007	0.0008	0.0001	1.00	HIGHEST
SW-4	09/23/19	<0.009	Aluminum (DIS)		O	07/24/19-08/20/19	2	0	<0.009	0.009	<0.009	0		HIGHEST
SW-4	09/23/19	<0.01	Cobalt (TRC)		O	07/24/19-08/20/19	2	0	<0.01	0.01	<0.01	0		HIGHEST
SW-4	09/23/19	44	Calcium		O	07/24/19-08/20/19	2	2	47	48	49	1	4.00	LOWEST
SW-4	09/23/19	0.151	Barium (TRC)		O	07/24/19-08/20/19	2	2	0.148	0.149	0.15	0.001	2.00	HIGHEST
SW-4	09/23/19	0.09	Iron (TRC)		O	07/24/19-08/20/19	2	2	0.19	0.29	0.39	0.14	1.43	LOWEST
SW-4	09/23/19	19	Magnesium		O	07/24/19-08/20/19	2	2	19	20	20	1	1.00	LOWEST
SW-4	09/23/19	0.01	Manganese (TRC)		O	07/24/19-08/20/19	2	2	0.012	0.02	0.027	0.01	1.00	LOWEST

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Quarterly Monitoring

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		mg/L							mg/L	mg/L	mg/L			
SW-4	09/23/19	0.006	Phosphorus		O	07/24/19-08/20/19	2	2	0.011	0.028	0.045	0.024	0.92	LOWEST
SW-4	09/23/19	2	Potassium		O	07/24/19-08/20/19	2	2	1	1	1	0		HIGHEST
SW-4	09/23/19	3	Sodium		O	07/24/19-08/20/19	2	2	3	3	3	0		HIGHEST
SW-4	09/23/19	0.186	Strontium (TRC)		O	07/24/19-08/20/19	2	2	0.183	0.185	0.186 L	0.002	0.50	HIGHEST
SW-4	09/23/19	<1	Chloride		O	07/24/19-08/20/19	2	0	<1	1	<1	0		HIGHEST
SW-4	09/23/19	0.009	Flow	Cubi	O	05/30/14-08/20/19	3	3	0.008	0.113	0.32	0.179	0.58	
SW-4	09/23/19	0.1	Fluoride		O	07/24/19-08/20/19	2	2	0.1	0.1	0.1	0		HIGHEST
SW-4	09/23/19	0.02	N+N		O	07/24/19-08/20/19	2	2	0.08	0.09	0.09	0.01	7.00	LOWEST
SW-4	09/23/19	8.23	Field pH	s.u.	O	05/30/14-08/20/19	3	3	7.82	8	8.17	0.18	1.28	HIGHEST
SW-4	09/23/19	375	Field SC	umh	O	05/30/14-08/20/19	3	3	361.6	365	367	3	3.33	HIGHEST
SW-4	09/23/19	218 D	TDS		O	07/24/19-08/20/19	2	2	207 D	209	211 D	3	3.00	HIGHEST
SW-4	09/23/19	200	Alkalinity		O	07/24/19-08/20/19	2	2	190	195	200	7	0.71	HIGHEST
SW-4	09/23/19	189	Hardness		O	07/24/19-08/20/19	2	2	197	202	206	6	2.17	LOWEST
SW-4	09/23/19	<4	TSS		O	07/24/19-08/20/19	2	2	5	6	8 J	2	1.00	LOWEST
SW-4	09/23/19	10.5	Water Temp	Deg	O	05/30/14-08/20/19	3	3	8.9	12.2	14.1	2.9	0.59	
SW-4	09/23/19	8.62	DO		O	05/30/14-08/20/19	3	3	7.2	7.93	8.69	0.75	0.92	
SW-4	09/23/19	8	Sulfate		O	07/24/19-08/20/19	2	2	9	10	10	1	2.00	LOWEST
SW-4	09/23/19	0.1	Total N Pers		O	07/24/19-08/20/19	2	2	0.2	0.2	0.22	0		LOWEST
SW-6	09/23/19	<0.000	Antimony (TRC)		O	05/25/11-06/20/19	30	0	<0.0005	0.0012	<0.005	0.0012	0.58	LOWEST
SW-6	09/23/19	<0.000	Beryllium (TRC)		O	05/25/11-06/20/19	30	0	<0.0008	0.0008	<0.001	0.0001	0.00	LOWEST
SW-6	09/23/19	<0.000	Cadmium (TRC)		O	05/25/11-06/20/19	30	3	<0.00003	0.00004	0.0001	0.00002	0.50	LOWEST
SW-6	09/23/19	<0.01	Chromium (TRC)		O	05/25/11-06/20/19	30	0	<0.001	0.01	<0.01	0		HIGHEST
SW-6	09/23/19	<0.002	Copper (TRC)		O	05/25/11-06/20/19	30	2	<0.001	0.002	0.003	0		
SW-6	09/23/19	0.007	Mercury (TRC)	ug/L	O	05/25/11-06/20/19	30	3	<0.000005	0.0002	<0.005	0.001	6.80	HIGHEST
SW-6	09/23/19	<0.002	Molybdenum (TRC)		O	05/25/11-06/20/19	30	0	<0.001	0.003	<0.005	0.001	1.00	
SW-6	09/23/19	<0.001	Nickel (TRC)		O	05/25/11-06/20/19	30	3	0.001	0.003	<0.01	0.004	0.50	LOWEST
SW-6	09/23/19	<0.000	Selenium (TRC)		O	05/25/11-06/20/19	30	8	<0.0002	0.0004	<0.001	0.0003	0.67	LOWEST
SW-6	09/23/19	<0.000	Silver (TRC)		O	05/25/11-06/20/19	30	0	<0.0002	0.0003	<0.0005	0.0001	1.00	LOWEST
SW-6	09/23/19	<0.000	Thallium (TRC)		O	05/25/11-06/20/19	30	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SW-6	09/23/19	<0.004	Zinc (TRC)		O	05/25/11-06/20/19	30	14	<0.002	0.006	0.03 J	0.006	0.33	
SW-6	09/23/19	<0.001	Arsenic (TRC)		O	05/25/11-06/20/19	30	1	<0.001	0.001	<0.003	0.001	0.00	LOWEST

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Data Comparison Summary

Report Date: November 7, 2019

Quarterly Monitoring

STATION	SAMPLE DATE	RESULT mg/L	PARAMETER		QC Code	COMPARISON PERIOD	N	# OF DET	MIN mg/L	MEAN: mg/L	MAX mg/L	STDDARD DEVIATION	STD DEVS FROM MEAN	RELATION TO DATABASE PERIOD
SW-6	09/23/19	<0.000	Lead (TRC)		O	05/25/11-06/20/19	30	12	<0.0003	0.0006	0.003	0.0006	0.50	LOWEST
SW-6	09/23/19	0.0006	Uranium (TRC)		O	05/25/11-06/20/19	30	11	0.0005	0.0053	<0.008	0.0036	1.31	
SW-6	09/23/19	<0.009	Aluminum (DIS)		O	05/25/11-06/20/19	30	1	<0.009	0.013	<0.03	0.009	0.44	LOWEST
SW-6	09/23/19	<0.01	Cobalt (TRC)		O	05/25/11-06/20/19	30	0	<0.005	0.01	<0.01	0		HIGHEST
SW-6	09/23/19	48	Calcium		O	05/25/11-06/20/19	30	30	28	49	54	5	0.20	
SW-6	09/23/19	0.134	Barium (TRC)		O	05/25/11-06/20/19	30	30	0.091	0.132	0.247	0.026	0.08	
SW-6	09/23/19	0.35	Iron (TRC)		O	05/25/11-06/20/19	30	30	0.05	0.51	3.04	0.59	0.27	
SW-6	09/23/19	21	Magnesium		O	05/25/11-06/20/19	30	30	12	22	26	3	0.33	
SW-6	09/23/19	0.017	Manganese (TRC)		O	05/25/11-06/20/19	30	28	<0.005	0.023	0.098	0.019	0.32	
SW-6	09/23/19	0.016	Phosphorus		O	06/11/14-06/20/19	19	19	0.01	0.023	0.051	0.012	0.58	
SW-6	09/23/19	1	Potassium		O	05/25/11-06/20/19	30	16	<1	1	3	0		LOWEST
SW-6	09/23/19	3	Sodium		O	05/25/11-06/20/19	30	30	2	3	3	0		HIGHEST
SW-6	09/23/19	0.175	Strontium (TRC)		O	05/25/11-06/20/19	30	30	0.1	0.168	0.329	0.04	0.18	
SW-6	09/23/19	<1	Chloride		O	05/25/11-06/20/19	30	7	<1	1	2	0		LOWEST
SW-6	09/23/19	0.14	Flow	Cubi	O	05/25/11-06/20/19	24	24	0.04	0.41	4.1	0.82	0.33	
SW-6	09/23/19	0.2	Fluoride		O	05/25/11-06/20/19	30	28	0.1	0.2	0.2	0		HIGHEST
SW-6	09/23/19	0.02	N+N		O	05/25/11-06/20/19	30	27	<0.01	0.05	0.11	0.03	1.00	
SW-6	09/23/19	8.35	Field pH	s.u.	O	05/25/11-06/20/19	30	30	6.67	8.01	8.68	0.45	0.76	
SW-6	09/23/19	406	Field SC	umh	O	05/25/11-06/20/19	30	30	249	390	433	35	0.46	
SW-6	09/23/19	238 D	TDS		O	05/25/11-06/20/19	30	30	162	224	254	19	0.74	
SW-6	09/23/19	220	Alkalinity		O	05/25/11-06/20/19	30	30	140	211	240	19	0.47	
SW-6	09/23/19	208	Hardness		O	05/25/11-06/20/19	30	30	119	212	239	24	0.17	
SW-6	09/23/19	23	TSS		O	05/30/12-06/20/19	26	20	4	21	107 D	28	0.07	
SW-6	09/23/19	10.4	Water Temp	Deg	O	05/25/11-06/20/19	30	30	-0.03	7	18.3	5.8	0.59	
SW-6	09/23/19	8.94	DO		O	05/25/11-06/20/19	30	30	5.82	9.87	14.18	1.81	0.51	
SW-6	09/23/19	11	Sulfate		O	05/25/11-06/20/19	30	30	6	12	34	5	0.20	
SW-6	09/23/19	0.16	Total N Pers		O	06/24/15-06/20/19	14	14	0.1	0.2	0.39	0.09	0.44	
SW-7	09/25/19	<0.000	Antimony (DIS)		O	04/27/16-06/20/19	17	0	<0.0005	0.0005	<0.0005	0		HIGHEST
SW-7	09/25/19	<0.000	Beryllium (DIS)		O	04/27/16-06/20/19	17	0	<0.0008	0.0008	<0.0008	0		HIGHEST
SW-7	09/25/19	<0.000	Cadmium (DIS)		O	04/27/16-06/20/19	17	0	<0.00003	0.00003	<0.00003	0		HIGHEST
SW-7	09/25/19	<0.01	Chromium (DIS)		O	04/27/16-06/20/19	17	0	<0.01	0.01	<0.01	0		HIGHEST

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Quarterly Monitoring

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SW-7	09/25/19	<0.002	Copper (DIS)		O	04/27/16-06/20/19	17	0	<0.002	0.002	<0.002	0		HIGHEST
SW-7	09/25/19	<0.005	Mercury (DIS)	ug/L	O	04/27/16-06/20/19	17	0	<0.000005	0.001	<0.005	0.002	2.00	HIGHEST
SW-7	09/25/19	<0.002	Molybdenum (DIS)		O	04/27/16-06/20/19	17	0	<0.002	0.002	<0.002	0		HIGHEST
SW-7	09/25/19	<0.001	Nickel (DIS)		O	04/27/16-06/20/19	17	0	<0.001	0.001	<0.001	0		HIGHEST
SW-7	09/25/19	<0.000	Selenium (DIS)		O	04/27/16-06/20/19	17	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SW-7	09/25/19	<0.000	Silver (DIS)		O	04/27/16-06/20/19	17	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SW-7	09/25/19	<0.000	Thallium (DIS)		O	04/27/16-06/20/19	17	0	<0.0002	0.0002	<0.0002	0		HIGHEST
SW-7	09/25/19	<0.002	Zinc (DIS)		O	04/27/16-06/20/19	17	1	<0.002	0.002	0.003	0		LOWEST
SW-7	09/25/19	<0.001	Arsenic (DIS)		O	04/27/16-06/20/19	17	0	<0.001	0.001	<0.001	0		HIGHEST
SW-7	09/25/19	<0.000	Lead (DIS)		O	04/27/16-06/20/19	17	0	<0.0003	0.0003	<0.0003	0		HIGHEST
SW-7	09/25/19	0.0006	Uranium (DIS)		O	04/27/16-06/20/19	17	3	0.0006	0.0067	<0.008	0.0029	2.10	LOWEST
SW-7	09/25/19	<0.009	Aluminum (DIS)		O	11/26/12-06/20/19	21	0	<0.009	0.009	<0.009	0		HIGHEST
SW-7	09/25/19	<0.01	Cobalt (DIS)		O	04/27/16-06/20/19	17	0	<0.01	0.01	<0.01	0		HIGHEST
SW-7	09/25/19	61	Calcium		O	11/26/12-06/20/19	21	21	51	58	64	3	1.00	
SW-7	09/25/19	0.068	Barium (DIS)		O	04/27/16-06/20/19	17	17	0.043	0.053	0.065	0.007	2.14	HIGHEST
SW-7	09/25/19	<0.02	Iron (DIS)		O	04/27/16-06/20/19	17	0	<0.02	0.02	<0.02	0		HIGHEST
SW-7	09/25/19	19	Magnesium		O	11/26/12-06/20/19	21	21	16	19	21	1	0.00	
SW-7	09/25/19	0.013	Manganese (DIS)		O	04/27/16-06/20/19	17	6	<0.005	0.006	0.017	0.003	2.33	
SW-7	09/25/19	<1	Potassium		O	11/26/12-06/20/19	21	1	<1	1	<1	0		HIGHEST
SW-7	09/25/19	2	Sodium		O	11/26/12-06/20/19	21	21	2	2	2	0		HIGHEST
SW-7	09/25/19	0.147	Strontium (DIS)		O	04/27/16-06/20/19	17	17	0.117	0.133	0.146	0.008	1.75	HIGHEST
SW-7	09/25/19	<1	Chloride		O	11/26/12-06/20/19	21	1	<1	1	2	0		LOWEST
SW-7	09/25/19	0.18	Flow	Gallo	O	11/26/12-06/20/19	19	19	0.0400	10.41	54.76	12.8	0.80	
SW-7	09/25/19	<0.1	Fluoride		O	11/26/12-06/20/19	21	16	<0.1	0.1	<0.1	0		HIGHEST
SW-7	09/25/19	<0.01	N+N		O	11/26/12-06/20/19	21	18	<0.01	0.04	0.13	0.03	1.00	LOWEST
SW-7	09/25/19	7.82	Field pH	s.u.	O	11/26/12-06/20/19	21	21	6.22	7.65	7.99	0.37	0.46	
SW-7	09/25/19	377	Field SC	umh	O	11/26/12-06/20/19	21	21	378	407	426.3	11	2.73	LOWEST
SW-7	09/25/19	239	TDS		O	11/26/12-06/20/19	21	21	201	224	241	11	1.36	
SW-7	09/25/19	230	Alkalinity		O	11/26/12-06/20/19	21	21	200	216	230	7	2.00	HIGHEST
SW-7	09/25/19	231	Hardness		O	11/26/12-06/20/19	21	21	193	222	242	12	0.75	
SW-7	09/25/19	21	TSS		O	11/26/12-06/20/19	21	6	<10	30	219	54	0.17	

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All results in mg/L unless otherwise noted. All results laboratory unless field (FLD) or Calculated (CALC). N: Number of samples in comparison data set; 50% of data must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Data Comparison Summary

Report Date: November 7, 2019

Quarterly Monitoring

STATION	SAMPLE DATE	RESULT Deg C	PARAMETER		QC Code	COMPARISON PERIOD	N	# OF DET	MIN Deg C	MEAN: Deg C	MAX Deg C	STDDARD DEVIATION	STD DEVS FROM MEAN	RELATION TO DATABASE PERIOD
SW-7	09/25/19	10.2	Water Temp	Deg	O	11/26/12-06/20/19	21	21	0.6	8.2	13.1	3.2	0.62	
SW-7	09/25/19	7.85	DO		O	11/26/12-06/20/19	21	21	2.82	8.23	11.31	1.63	0.23	
SW-7	09/25/19	8	Sulfate		O	11/26/12-06/20/19	21	21	6	9	11	1	1.00	
USGS-SC1	09/23/19	<0.000	Antimony (TRC)		O	03/24/14-08/21/19	62	0	<0.0005	0.0005	<0.0005	0		HIGHEST
USGS-SC1	09/23/19	<0.000	Beryllium (TRC)		O	03/24/14-08/21/19	62	0	<0.0008	0.0008	<0.0008	0		HIGHEST
USGS-SC1	09/23/19	<0.000	Cadmium (TRC)		O	03/24/14-08/21/19	62	2	<0.00003	0.00003	0.00009	0.00001	0.00	LOWEST
USGS-SC1	09/23/19	<0.01	Chromium (TRC)		O	03/24/14-08/21/19	62	0	<0.005	0.01	<0.01	0		HIGHEST
USGS-SC1	09/23/19	<0.002	Copper (TRC)		O	03/24/14-08/21/19	62	1	<0.002	0.002	<0.002	0		HIGHEST
USGS-SC1	09/23/19	<0.005	Mercury (TRC)	ug/L	O	03/24/14-08/21/19	62	3	<0.000005	0.001	0.01 D	0.002	2.00	
USGS-SC1	09/23/19	<0.002	Molybdenum (TRC)		O	03/24/14-08/21/19	62	0	<0.001	0.002	<0.002	0		HIGHEST
USGS-SC1	09/23/19	<0.001	Nickel (TRC)		O	03/24/14-08/21/19	62	8	<0.001	0.001	0.003	0		LOWEST
USGS-SC1	09/23/19	<0.000	Selenium (TRC)		O	03/24/14-08/21/19	62	0	<0.0002	0.0002	<0.0004	0		LOWEST
USGS-SC1	09/23/19	<0.000	Silver (TRC)		O	03/24/14-08/21/19	62	1	<0.0002	0.0002	<0.0004	0		LOWEST
USGS-SC1	09/23/19	<0.000	Thallium (TRC)		O	03/24/14-08/21/19	62	0	<0.002	0.0002	<0.0002	0		HIGHEST
USGS-SC1	09/23/19	<0.004	Zinc (TRC)		O	03/24/14-08/21/19	62	19	<0.002	0.003	0.009	0.002	0.50	
USGS-SC1	09/23/19	<0.001	Arsenic (TRC)		O	03/24/14-08/21/19	62	1	<0.001	0.001	<0.001	0		HIGHEST
USGS-SC1	09/23/19	<0.000	Lead (TRC)		O	03/24/14-08/21/19	62	8	<0.0003	0.0003	0.0011	0.0001	0.00	LOWEST
USGS-SC1	09/23/19	0.0004	Uranium (TRC)		O	03/24/14-08/21/19	62	9	0.0003	0.0069	<0.008	0.0027	2.41	
USGS-SC1	09/23/19	<0.009	Aluminum (DIS)		O	03/24/14-08/21/19	62	18	<0.009	0.018	0.189	0.029	0.31	LOWEST
USGS-SC1	09/23/19	<0.01	Cobalt (TRC)		O	03/24/14-08/21/19	62	0	<0.005	0.01	<0.01	0		HIGHEST
USGS-SC1	09/23/19	50	Calcium		O	03/24/14-08/21/19	62	62	35	51	61	6	0.17	
USGS-SC1	09/23/19	0.074	Barium (TRC)		O	03/24/14-08/21/19	62	62	0.06	0.069	0.088	0.006	0.83	
USGS-SC1	09/23/19	0.11	Iron (TRC)		O	03/24/14-08/21/19	62	62	0.07	0.25	1.71	0.3	0.47	
USGS-SC1	09/23/19	13	Magnesium		O	03/24/14-08/21/19	62	62	8	13	15	2	0.00	
USGS-SC1	09/23/19	0.007	Manganese (TRC)		O	03/24/14-08/21/19	62	62	0.005	0.011	0.079	0.01	0.40	
USGS-SC1	09/23/19	<0.003	Phosphorus		O	05/16/14-08/21/19	59	43	<0.003	0.009	0.050	0.009	0.67	LOWEST
USGS-SC1	09/23/19	1	Potassium		O	03/24/14-08/21/19	62	62	1	1	1	0		HIGHEST
USGS-SC1	09/23/19	2	Sodium		O	03/24/14-08/21/19	62	62	2	2	3	0		LOWEST
USGS-SC1	09/23/19	0.154	Strontium (TRC)		O	03/24/14-08/21/19	62	62	0.119 L	0.142	0.16	0.009	1.33	
USGS-SC1	09/23/19	1	Chloride		O	03/24/14-08/21/19	62	62	1	2	5	1	1.00	LOWEST
USGS-SC1	09/23/19	18.16	Flow	Cubi	O	05/05/14-08/21/19	41	41	NF-ICE	32.15	111.32	28.06	0.50	

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All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Data Comparison Summary

Report Date: November 7, 2019

Quarterly Monitoring

STATION	SAMPLE DATE	RESULT mg/L	PARAMETER		QC Code	COMPARISON PERIOD	N	# OF DET	MIN mg/L	MEAN: mg/L	MAX mg/L	STDDARD DEVIATION	STD DEVS FROM MEAN	RELATION TO DATABASE PERIOD
USGS-SC1	09/23/19	<0.1	Fluoride		O	03/24/14-08/21/19	62	1	<0.1	0.1	<0.1	0		HIGHEST
USGS-SC1	09/23/19	<0.01	N+N		O	03/24/14-08/21/19	62	43	0.01	0.04	0.13	0.04	0.75	LOWEST
USGS-SC1	09/23/19	8.55	Field pH	s.u.	O	03/24/14-08/21/19	62	62	6.67 A	8	8.67	0.45	1.22	
USGS-SC1	09/23/19	350	Field SC	umh	O	03/24/14-08/21/19	63	63	137	328	408	49	0.45	
USGS-SC1	09/23/19	206 D	TDS		O	03/24/14-08/21/19	62	62	132 D	189	230	21	0.81	
USGS-SC1	09/23/19	190	Alkalinity		O	03/24/14-08/21/19	62	62	120	177	220	22	0.59	
USGS-SC1	09/23/19	178	Hardness		O	03/24/14-08/21/19	62	61	<7	175	214	31	0.10	
USGS-SC1	09/23/19	<4	TSS		O	03/24/14-08/21/19	62	17	<4	8	38	6	0.67	LOWEST
USGS-SC1	09/23/19	8.9	Water Temp	Deg	O	03/24/14-08/21/19	63	63	-0.98	4	13.1	4.3	1.14	
USGS-SC1	09/23/19	9.8	DO		O	03/24/14-08/21/19	63	63	7.12	11.2	16.55	1.6	0.87	
USGS-SC1	09/23/19	5	Sulfate		O	03/24/14-08/21/19	62	62	3	6	8	1	1.00	
USGS-SC1	09/23/19	0.05	Total N Pers		O	04/29/15-08/21/19	48	38	<0.003	0.12	1.1 J	0.16	0.44	

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All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

APPENDIX 2

DATABASE

Analyses Summary Report

Site Name: Black Butte Mine 11/6/2019 11:12:28 AM

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DI-Blank	DS-1	DS-10	DS-11
Water	Sample Date	9/20/2019	9/24/2019	9/25/2019	9/25/2019	9/24/2019	9/24/2019
	Sample Time	3:15:00 PM	10:35:00 AM	3:00:00 PM	10:30:00 AM	3:40:00 PM	4:00:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro
	Lab Number	H19090556-027	H19090658-014	H19090658-012	H19090658-006	z	z
	Sample Number	BBC-1909-230	BBC-1909-115	BBC-1909-152	BBC-1909-140	BBC-1909-130	BBC-1909-131
	Remarks						
Field Parameters	Multiple Units						
Depth To Water							
Dissolved Oxygen					9.67	9	10.25
EH							
Field pH					8.11	7.8	7.92
Field Specific Conductivity					411	391	445
Flow							
Flow					4.35	2.89	2.09
Staff Gauge							
Water Temperature					8.1	7.6	7.3
Physical Parameters	mg/L						
Total Dissolved Solids		<10	<10	<10	228		
Total Suspended Solids		<10	<4	<10	<10		
Major Constituents - Commons Ions	mg/L						
Alkalinity as CaCO3		<4	<4	<4	220		
Calcium (DIS)		<1	<1	<1	53		
Chloride		<1	<1	<1	<1		
Fluoride		<0.1	<0.1	<0.1	0.1		
Hardness as CaCO3		<1	<1	<1	215		
Magnesium (DIS)		<1	<1	<1	20		
Potassium (DIS)		<1	<1	<1	<1		
Sodium (DIS)		<1	<1	<1	2		
Sulfate		<1	<1	<1	14		
Nutrients	mg/L						
Nitrate + Nitrite as N		<0.01	<0.01	<0.01	0.08		
Phosphorus (TOT)			<0.003				
Total Nitrogen as N (Persulfate)			<0.04				
Metals - Trace Constituents	Multiple Units						
Aluminum (DIS)		<0.009	<0.009	<0.009	<0.009		
Antimony (DIS)		<0.0005		<0.0005	<0.0005		
Antimony (TRC)			<0.0005				
Arsenic (DIS)		<0.001		<0.001	<0.001		
Arsenic (TRC)			<0.001				

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DI-Blank	DS-1	DS-10	DS-11
Water	Sample Date	9/20/2019	9/24/2019	9/25/2019	9/25/2019	9/24/2019	9/24/2019
	Sample Time	3:15:00 PM	10:35:00 AM	3:00:00 PM	10:30:00 AM	3:40:00 PM	4:00:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro
	Lab Number	H19090556-027	H19090658-014	H19090658-012	H19090658-006	z	z
	Sample Number	BBC-1909-230	BBC-1909-115	BBC-1909-152	BBC-1909-140	BBC-1909-130	BBC-1909-131
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Barium (DIS)	<0.003		<0.003	0.071		
	Barium (TRC)		<0.003				
	Beryllium (DIS)	<0.0008		<0.0008	<0.0008		
	Beryllium (TRC)		<0.0008				
	Cadmium (DIS)	<0.00003		<0.00003	<0.00003		
	Cadmium (TRC)		<0.00003				
	Chromium (DIS)	<0.01		<0.01	<0.01		
	Chromium (TRC)		<0.01				
	Cobalt (DIS)	<0.01		<0.01	<0.01		
	Cobalt (TRC)		<0.01				
	Copper (DIS)	<0.002		<0.002	<0.002		
	Copper (TRC)		<0.002				
	Iron (DIS)	<0.02		<0.02	<0.02		
	Iron (TRC)		<0.02				
	Lead (DIS)	<0.0003		<0.0003	<0.0003		
	Lead (TRC)		<0.0003				
	Manganese (DIS)	<0.005		<0.005	<0.005		
	Manganese (TRC)		<0.005				
	Mercury (DIS)	<0.005		<0.005	<0.005		
	Mercury (TRC)		<0.005				
	Molybdenum (DIS)	<0.002		<0.002	<0.002		
	Molybdenum (TRC)		<0.002				
	Nickel (DIS)	<0.001		<0.001	<0.001		
	Nickel (TRC)		<0.001				
	Selenium (DIS)	<0.0002		<0.0002	<0.0002		
	Selenium (TRC)		<0.0002				
	Silver (DIS)	<0.0002		<0.0002	<0.0002		
	Silver (TRC)		<0.0002				
	Strontium (DIS)	<0.0002		<0.0002	0.119		
	Strontium (TRC)		<0.0002				
	Thallium (DIS)	<0.0002		<0.0002	<0.0002		
	Thallium (TRC)		<0.0002				
	Uranium (DIS)	<0.0002		<0.0002	0.0007		

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Sample Type:	Station (Site)	DI-Blank	DI-Blank	DI-Blank	DS-1	DS-10	DS-11
Water	Sample Date	9/20/2019	9/24/2019	9/25/2019	9/25/2019	9/24/2019	9/24/2019
	Sample Time	3:15:00 PM	10:35:00 AM	3:00:00 PM	10:30:00 AM	3:40:00 PM	4:00:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro
	Lab Number	H19090556-027	H19090658-014	H19090658-012	H19090658-006	z	z
	Sample Number	BBC-1909-230	BBC-1909-115	BBC-1909-152	BBC-1909-140	BBC-1909-130	BBC-1909-131
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Uranium (TRC)		<0.0002				
	Zinc (DIS)	<0.002		<0.002	<0.002		
	Zinc (TRC)		<0.004				

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DS-2	DS-3	DS-4	DS-5	DS-6	DS-7
Water	Sample Date	9/25/2019	9/24/2019	9/24/2019	9/24/2019	9/24/2019	9/24/2019
	Sample Time	9:35:00 AM	1:00:00 PM	1:20:00 PM	11:50:00 AM	12:05:00 PM	2:05:00 PM
	Lab	Hydro	Energy Labs	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	H19090658-001	z	z	z	z
	Sample Number	BBC-1909-138	BBC-1909-120	BBC-1909-122	BBC-1909-117	BBC-1909-119	BBC-1909-124
	Remarks						

Field Parameters	Multiple Units					
Depth To Water						
Dissolved Oxygen	8.8	8.05			8.66	9.34
EH						
Field pH	7.94	7.03			7.26	7.49
Field Specific Conductivity	369	54			127	264
Flow						
Flow	0.35	1	NF-DRY	NF-DRY	NM	6.78
Staff Gauge						
Water Temperature	6.3	10.3			10.3	8.4
Physical Parameters	mg/L					
Total Dissolved Solids		56				
Total Suspended Solids		<10				
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3		24				
Calcium (DIS)		6				
Chloride		<1				
Fluoride		<0.1				
Hardness as CaCO3		21				
Magnesium (DIS)		2				
Potassium (DIS)		1				
Sodium (DIS)		1				
Sulfate		2				
Nutrients	mg/L					
Nitrate + Nitrite as N		0.36				
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)		0.177				
Antimony (DIS)		<0.0005				
Antimony (TRC)						
Arsenic (DIS)		<0.001				
Arsenic (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	DS-2	DS-3	DS-4	DS-5	DS-6	DS-7
Water	Sample Date	9/25/2019	9/24/2019	9/24/2019	9/24/2019	9/24/2019	9/24/2019
	Sample Time	9:35:00 AM	1:00:00 PM	1:20:00 PM	11:50:00 AM	12:05:00 PM	2:05:00 PM
	Lab	Hydro	Energy Labs	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	H19090658-001	z	z	z	z
	Sample Number	BBC-1909-138	BBC-1909-120	BBC-1909-122	BBC-1909-117	BBC-1909-119	BBC-1909-124
	Remarks						

Metals - Trace Constituents Multiple Units	
Barium (DIS)	0.274
Barium (TRC)	
Beryllium (DIS)	<0.0008
Beryllium (TRC)	
Cadmium (DIS)	<0.00003
Cadmium (TRC)	
Chromium (DIS)	<0.01
Chromium (TRC)	
Cobalt (DIS)	<0.01
Cobalt (TRC)	
Copper (DIS)	<0.002
Copper (TRC)	
Iron (DIS)	0.21
Iron (TRC)	
Lead (DIS)	<0.0003
Lead (TRC)	
Manganese (DIS)	<0.005
Manganese (TRC)	
Mercury (DIS)	0.006
Mercury (TRC)	
Molybdenum (DIS)	<0.002
Molybdenum (TRC)	
Nickel (DIS)	0.002
Nickel (TRC)	
Selenium (DIS)	<0.0002
Selenium (TRC)	
Silver (DIS)	<0.0002
Silver (TRC)	
Strontium (DIS)	0.0306
Strontium (TRC)	
Thallium (DIS)	<0.0002
Thallium (TRC)	
Uranium (DIS)	<0.0002

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DS-2	DS-3	DS-4	DS-5	DS-6	DS-7
Water	Sample Date	9/25/2019	9/24/2019	9/24/2019	9/24/2019	9/24/2019	9/24/2019
	Sample Time	9:35:00 AM	1:00:00 PM	1:20:00 PM	11:50:00 AM	12:05:00 PM	2:05:00 PM
	Lab	Hydro	Energy Labs	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	H19090658-001	z	z	z	z
	Sample Number	BBC-1909-138	BBC-1909-120	BBC-1909-122	BBC-1909-117	BBC-1909-119	BBC-1909-124
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Uranium (TRC)						
	Zinc (DIS)		<0.002				
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 11/6/2019 11:12:28 AM

Sample Type:	Station (Site)	DS-8	DS-9	MW-10	MW-10	MW-11	MW-11
Water	Sample Date	9/24/2019	9/24/2019	9/16/2019	9/19/2019	9/16/2019	9/19/2019
	Sample Time	3:00:00 PM	3:24:00 PM	4:18:00 PM	11:30:00 AM	4:22:00 PM	11:00:00 AM
	Lab	Hydro	Hydro	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	z	z	z	H19090556-007	z	H19090556-011
	Sample Number	BBC-1909-128	BBC-1909-129	BBC-1909-13	BBC-1909-210	BBC-1909-14	BBC-1909-214
	Remarks						

Field Parameters	Multiple Units					
Depth To Water			74.56	74.79	32.36	32.55
Dissolved Oxygen	10.15	8.94		7.71		9.31
EH				261.153		259.021
Field pH	7.89	7.98		7.75		7.7
Field Specific Conductivity	456	375		356		315
Flow						
Flow	3.77	4.75				
Staff Gauge						
Water Temperature	8.3	7.9		9.1		8.7
Physical Parameters	mg/L					
Total Dissolved Solids				197		177
Total Suspended Solids				<10		12
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3				190		170
Calcium (DIS)				42		43
Chloride				<1		<1
Fluoride				0.2		<0.1
Hardness as CaCO3				174		153
Magnesium (DIS)				17		11
Potassium (DIS)				2		2
Sodium (DIS)				6		4
Sulfate				4		5
Nutrients	mg/L					
Nitrate + Nitrite as N				0.57		0.4
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)				<0.009		<0.009
Antimony (DIS)				<0.0005		<0.0005
Antimony (TRC)						
Arsenic (DIS)				<0.001		<0.001
Arsenic (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Analyses Summary Report

Site Name: Black Butte Mine 11/6/2019 11:12:28 AM

Sample Type:	Station (Site)	DS-8	DS-9	MW-10	MW-10	MW-11	MW-11
Water	Sample Date	9/24/2019	9/24/2019	9/16/2019	9/19/2019	9/16/2019	9/19/2019
	Sample Time	3:00:00 PM	3:24:00 PM	4:18:00 PM	11:30:00 AM	4:22:00 PM	11:00:00 AM
	Lab	Hydro	Hydro	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	z	z	z	H19090556-007	z	H19090556-011
	Sample Number	BBC-1909-128	BBC-1909-129	BBC-1909-13	BBC-1909-210	BBC-1909-14	BBC-1909-214
	Remarks						

Metals - Trace Constituents Multiple Units		
Barium (DIS)	0.204	0.155
Barium (TRC)		
Beryllium (DIS)	<0.0008	<0.0008
Beryllium (TRC)		
Cadmium (DIS)	<0.00003	<0.00003
Cadmium (TRC)		
Chromium (DIS)	<0.01	<0.01
Chromium (TRC)		
Cobalt (DIS)	<0.01	<0.01
Cobalt (TRC)		
Copper (DIS)	<0.002	<0.002
Copper (TRC)		
Iron (DIS)	<0.02	<0.02
Iron (TRC)		
Lead (DIS)	<0.0003	<0.0003
Lead (TRC)		
Manganese (DIS)	<0.005	<0.005
Manganese (TRC)		
Mercury (DIS)	<0.005	<0.005
Mercury (TRC)		
Molybdenum (DIS)	0.004	<0.002
Molybdenum (TRC)		
Nickel (DIS)	<0.001	<0.001
Nickel (TRC)		
Selenium (DIS)	<0.0002	<0.0002
Selenium (TRC)		
Silver (DIS)	<0.0002	<0.0002
Silver (TRC)		
Strontium (DIS)	0.886	0.322
Strontium (TRC)		
Thallium (DIS)	<0.0002	<0.0002
Thallium (TRC)		
Uranium (DIS)	0.0051	0.0015

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	DS-8	DS-9	MW-10	MW-10	MW-11	MW-11
Water	Sample Date	9/24/2019	9/24/2019	9/16/2019	9/19/2019	9/16/2019	9/19/2019
	Sample Time	3:00:00 PM	3:24:00 PM	4:18:00 PM	11:30:00 AM	4:22:00 PM	11:00:00 AM
	Lab	Hydro	Hydro	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	z	z	z	H19090556-007	z	H19090556-011
	Sample Number	BBC-1909-128	BBC-1909-129	BBC-1909-13	BBC-1909-210	BBC-1909-14	BBC-1909-214
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Uranium (TRC)						
	Zinc (DIS)				<0.002		<0.002
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	MW-12	MW-12	MW-13	MW-13	MW-14	MW-15
Water	Sample Date	9/16/2019	9/19/2019	9/16/2019	9/19/2019	9/16/2019	9/16/2019
	Sample Time	4:28:00 PM	10:25:00 AM	4:30:00 PM	9:55:00 AM	6:20:00 PM	6:17:00 PM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Hydro
	Lab Number	z	H19090556-010	z	H19090556-009	z	z
	Sample Number	BBC-1909-15	BBC-1909-213	BBC-1909-16	BBC-1909-212	BBC-1909-17	BBC-1909-18
	Remarks						
Field Parameters	Multiple Units						
Depth To Water		26.72	26.82	20.7	27.6	39.77	39.52
Dissolved Oxygen			8.38		8.09		
EH			269.295		267.812		
Field pH			7.6		7.57		
Field Specific Conductivity			412		425		
Flow							
Flow							
Staff Gauge							
Water Temperature			6.5		6.4		
Physical Parameters	mg/L						
Total Dissolved Solids			220		231		
Total Suspended Solids			<10		52		
Major Constituents - Commons Ions	mg/L						
Alkalinity as CaCO3			220		220		
Calcium (DIS)			56		58		
Chloride			<1		<1		
Fluoride			0.1		0.1		
Hardness as CaCO3			217		225		
Magnesium (DIS)			19		20		
Potassium (DIS)			<1		<1		
Sodium (DIS)			2		1		
Sulfate			12		15		
Nutrients	mg/L						
Nitrate + Nitrite as N			0.15		0.16		
Phosphorus (TOT)							
Total Nitrogen as N (Persulfate)							
Metals - Trace Constituents	Multiple Units						
Aluminum (DIS)			<0.009		<0.009		
Antimony (DIS)			<0.0005		<0.0005		
Antimony (TRC)							
Arsenic (DIS)			<0.001		<0.001		
Arsenic (TRC)							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	MW-12	MW-12	MW-13	MW-13	MW-14	MW-15
Water	Sample Date	9/16/2019	9/19/2019	9/16/2019	9/19/2019	9/16/2019	9/16/2019
	Sample Time	4:28:00 PM	10:25:00 AM	4:30:00 PM	9:55:00 AM	6:20:00 PM	6:17:00 PM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Hydro
	Lab Number	z	H19090556-010	z	H19090556-009	z	z
	Sample Number	BBC-1909-15	BBC-1909-213	BBC-1909-16	BBC-1909-212	BBC-1909-17	BBC-1909-18
	Remarks						

Metals - Trace Constituents Multiple Units		
Barium (DIS)	0.051	0.054
Barium (TRC)		
Beryllium (DIS)	<0.0008	<0.0008
Beryllium (TRC)		
Cadmium (DIS)	<0.00003	<0.00003
Cadmium (TRC)		
Chromium (DIS)	<0.01	<0.01
Chromium (TRC)		
Cobalt (DIS)	<0.01	<0.01
Cobalt (TRC)		
Copper (DIS)	<0.002	<0.002
Copper (TRC)		
Iron (DIS)	<0.02	<0.02
Iron (TRC)		
Lead (DIS)	<0.0003	<0.0003
Lead (TRC)		
Manganese (DIS)	<0.005	<0.005
Manganese (TRC)		
Mercury (DIS)	<0.005	<0.005
Mercury (TRC)		
Molybdenum (DIS)	<0.002	<0.002
Molybdenum (TRC)		
Nickel (DIS)	<0.001	<0.001
Nickel (TRC)		
Selenium (DIS)	<0.0002	<0.0002
Selenium (TRC)		
Silver (DIS)	<0.0002	<0.0002
Silver (TRC)		
Strontium (DIS)	0.135	0.0963
Strontium (TRC)		
Thallium (DIS)	<0.0002	<0.0002
Thallium (TRC)		
Uranium (DIS)	0.0007	0.0005

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Sample Type:	Station (Site)	MW-12	MW-12	MW-13	MW-13	MW-14	MW-15
Water	Sample Date	9/16/2019	9/19/2019	9/16/2019	9/19/2019	9/16/2019	9/16/2019
	Sample Time	4:28:00 PM	10:25:00 AM	4:30:00 PM	9:55:00 AM	6:20:00 PM	6:17:00 PM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Hydro
	Lab Number	z	H19090556-010	z	H19090556-009	z	z
	Sample Number	BBC-1909-15	BBC-1909-213	BBC-1909-16	BBC-1909-212	BBC-1909-17	BBC-1909-18
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Uranium (TRC)						
	Zinc (DIS)		<0.002		<0.002		
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 11/6/2019 11:12:28 AM

Sample Type:	Station (Site)	MW-16	MW-16	MW-17	MW-17	MW-18	MW-18
Water	Sample Date	9/16/2019	9/20/2019	9/16/2019	9/19/2019	9/16/2019	9/19/2019
	Sample Time	2:42:00 PM	9:10:00 AM	5:37:00 PM	4:50:00 PM	4:10:00 PM	3:55:00 PM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	z	H19090556-021	z	H19090556-018	z	H19090556-017
	Sample Number	BBC-1909-19	BBC-1909-224	BBC-1909-20	BBC-1909-221	BBC-1909-21	BBC-1909-220
	Remarks						
Field Parameters	Multiple Units						
Depth To Water		7.15	7.35	50.25	50.5	16.21	16.34
Dissolved Oxygen			0.08		6.83		8.63
EH			143.844		232.942		252.361
Field pH			7.25		7.75		7.76
Field Specific Conductivity			615		385		368
Flow							
Flow							
Staff Gauge							
Water Temperature			6.8		7.4		6.7
Physical Parameters	mg/L						
Total Dissolved Solids			372		213		200
Total Suspended Solids			10		15		18
Major Constituents - Commons Ions	mg/L						
Alkalinity as CaCO3			250		200		200
Calcium (DIS)			70		42		47
Chloride			2		1		<1
Fluoride			0.5		0.3		<0.1
Hardness as CaCO3			326		202		191
Magnesium (DIS)			37		24		18
Potassium (DIS)			3		<1		<1
Sodium (DIS)			4		2		2
Sulfate			95		8		7
Nutrients	mg/L						
Nitrate + Nitrite as N			<0.01		0.41		0.17
Phosphorus (TOT)							
Total Nitrogen as N (Persulfate)							
Metals - Trace Constituents	Multiple Units						
Aluminum (DIS)			<0.009		<0.009		<0.009
Antimony (DIS)			<0.0005		<0.0005		<0.0005
Antimony (TRC)							
Arsenic (DIS)			0.005		<0.001		<0.001
Arsenic (TRC)							

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Sample Type:	Station (Site)	MW-16	MW-16	MW-17	MW-17	MW-18	MW-18
Water	Sample Date	9/16/2019	9/20/2019	9/16/2019	9/19/2019	9/16/2019	9/19/2019
	Sample Time	2:42:00 PM	9:10:00 AM	5:37:00 PM	4:50:00 PM	4:10:00 PM	3:55:00 PM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	z	H19090556-021	z	H19090556-018	z	H19090556-017
	Sample Number	BBC-1909-19	BBC-1909-224	BBC-1909-20	BBC-1909-221	BBC-1909-21	BBC-1909-220
	Remarks						
Metals - Trace Constituents	Multiple Units						
Barium (DIS)		0.017		0.267		0.098	
Barium (TRC)							
Beryllium (DIS)		<0.0008		<0.0008		<0.0008	
Beryllium (TRC)							
Cadmium (DIS)		<0.00003		<0.00003		<0.00003	
Cadmium (TRC)							
Chromium (DIS)		<0.01		<0.01		<0.01	
Chromium (TRC)							
Cobalt (DIS)		<0.01		<0.01		<0.01	
Cobalt (TRC)							
Copper (DIS)		<0.002		<0.002		<0.002	
Copper (TRC)							
Iron (DIS)		1.26		<0.02		<0.02	
Iron (TRC)							
Lead (DIS)		<0.0003		<0.0003		<0.0003	
Lead (TRC)							
Manganese (DIS)		0.039		<0.005		<0.005	
Manganese (TRC)							
Mercury (DIS)		<0.005		<0.005		<0.005	
Mercury (TRC)							
Molybdenum (DIS)		<0.002		<0.002		<0.002	
Molybdenum (TRC)							
Nickel (DIS)		<0.001		<0.001		<0.001	
Nickel (TRC)							
Selenium (DIS)		<0.0002		0.0008		0.0002	
Selenium (TRC)							
Silver (DIS)		<0.0002		<0.0002		<0.0002	
Silver (TRC)							
Strontium (DIS)		0.287		0.103		0.1	
Strontium (TRC)							
Thallium (DIS)		<0.0002		<0.0002		<0.0002	
Thallium (TRC)							
Uranium (DIS)		0.0017		0.0008		0.0004	

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Sample Type:	Station (Site)	MW-16	MW-16	MW-17	MW-17	MW-18	MW-18
Water	Sample Date	9/16/2019	9/20/2019	9/16/2019	9/19/2019	9/16/2019	9/19/2019
	Sample Time	2:42:00 PM	9:10:00 AM	5:37:00 PM	4:50:00 PM	4:10:00 PM	3:55:00 PM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	z	H19090556-021	z	H19090556-018	z	H19090556-017
	Sample Number	BBC-1909-19	BBC-1909-224	BBC-1909-20	BBC-1909-221	BBC-1909-21	BBC-1909-220
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Uranium (TRC)						
	Zinc (DIS)		0.005		0.005		<0.002
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 11/6/2019 11:12:28 AM

Sample Type:	Station (Site)	MW-19	MW-19	MW-1A	MW-1A	MW-1B	MW-1B
Water	Sample Date	9/16/2019	9/19/2019	9/16/2019	9/18/2019	9/16/2019	9/18/2019
	Sample Time	4:34:00 PM	9:25:00 AM	12:38:00 PM	1:35:00 PM	12:38:00 PM	12:20:00 PM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	z	H19090556-008	z	H19090556-003	z	H19090556-002
	Sample Number	BBC-1909-22	BBC-1909-211	BBC-1909-1	BBC-1909-206	BBC-1909-2	BBC-1909-205
	Remarks						

Field Parameters	Multiple Units					
Depth To Water	13.45	13.51	6.84	6.94	23.44	23.56
Dissolved Oxygen		7.47		8.86		0.09
EH		273.291		240.202		196.138
Field pH		7.52		7.34		6.4
Field Specific Conductivity		400		342		611
Flow						
Flow						
Staff Gauge						
Water Temperature		7.7		9.4		8.6
Physical Parameters	mg/L					
Total Dissolved Solids		217		205		429
Total Suspended Solids		12		108		<10
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3		210		170		110
Calcium (DIS)		51		42		61
Chloride		<1		1		3
Fluoride		0.1		0.2		0.2
Hardness as CaCO3		208		177		282
Magnesium (DIS)		19		17		32
Potassium (DIS)		<1		1		3
Sodium (DIS)		2		2		3
Sulfate		14		15		219
Nutrients	mg/L					
Nitrate + Nitrite as N		0.23		0.44		0.06
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)		<0.009		0.018		<0.009
Antimony (DIS)		<0.0005		<0.0005		0.0009
Antimony (TRC)						
Arsenic (DIS)		<0.001		<0.001		0.066
Arsenic (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	MW-19	MW-19	MW-1A	MW-1A	MW-1B	MW-1B
Water	Sample Date	9/16/2019	9/19/2019	9/16/2019	9/18/2019	9/16/2019	9/18/2019
	Sample Time	4:34:00 PM	9:25:00 AM	12:38:00 PM	1:35:00 PM	12:38:00 PM	12:20:00 PM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	z	H19090556-008	z	H19090556-003	z	H19090556-002
	Sample Number	BBC-1909-22	BBC-1909-211	BBC-1909-1	BBC-1909-206	BBC-1909-2	BBC-1909-205
	Remarks						
Metals - Trace Constituents	Multiple Units						
Barium (DIS)		0.086		0.169		0.011	
Barium (TRC)							
Beryllium (DIS)		<0.0008		<0.0008		<0.0008	
Beryllium (TRC)							
Cadmium (DIS)		<0.00003		<0.00003		<0.00003	
Cadmium (TRC)							
Chromium (DIS)		<0.01		<0.01		<0.01	
Chromium (TRC)							
Cobalt (DIS)		<0.01		<0.01		0.02	
Cobalt (TRC)							
Copper (DIS)		<0.002		0.006		<0.002	
Copper (TRC)							
Iron (DIS)		<0.02		<0.02		19	
Iron (TRC)							
Lead (DIS)		<0.0003		0.0004		<0.0003	
Lead (TRC)							
Manganese (DIS)		<0.005		<0.005		0.076	
Manganese (TRC)							
Mercury (DIS)		<0.005		<0.005		<0.005	
Mercury (TRC)							
Molybdenum (DIS)		<0.002		<0.002		<0.002	
Molybdenum (TRC)							
Nickel (DIS)		<0.001		<0.001		0.01	
Nickel (TRC)							
Selenium (DIS)		<0.0002		<0.0002		<0.0002	
Selenium (TRC)							
Silver (DIS)		<0.0002		<0.0002		<0.0002	
Silver (TRC)							
Strontium (DIS)		0.148		0.0944		1.77 L	
Strontium (TRC)							
Thallium (DIS)		<0.0002		0.0009		0.0117	
Thallium (TRC)							
Uranium (DIS)		0.0007		0.0009		<0.0002	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	MW-19	MW-19	MW-1A	MW-1A	MW-1B	MW-1B
Water	Sample Date	9/16/2019	9/19/2019	9/16/2019	9/18/2019	9/16/2019	9/18/2019
	Sample Time	4:34:00 PM	9:25:00 AM	12:38:00 PM	1:35:00 PM	12:38:00 PM	12:20:00 PM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	z	H19090556-008	z	H19090556-003	z	H19090556-002
	Sample Number	BBC-1909-22	BBC-1909-211	BBC-1909-1	BBC-1909-206	BBC-1909-2	BBC-1909-205
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Uranium (TRC)						
	Zinc (DIS)		<0.002		<0.002		0.012
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	MW-20	MW-20	MW-2A	MW-2A	MW-2B	MW-2B
Water	Sample Date	9/16/2019	9/19/2019	9/16/2019	9/18/2019	9/16/2019	9/18/2019
	Sample Time	5:42:00 PM	12:15:00 PM	12:40:00 PM	6:00:00 PM	12:40:00 PM	6:30:00 PM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	z	H19090556-012	z	H19090556-005	z	H19090556-006
	Sample Number	BBC-1909-23	BBC-1909-215	BBC-1909-3	BBC-1909-208	BBC-1909-4	BBC-1909-209
	Remarks						
Field Parameters	Multiple Units						
Depth To Water		21.49	21.5	41.85	41.85	41.82	41.82
Dissolved Oxygen			9.12		7.74		0.38
EH			255.44		241.757		238.14
Field pH			7.74		7.47		7.31
Field Specific Conductivity			392		385		419
Flow							
Flow							
Staff Gauge							
Water Temperature			8		7.9		8
Physical Parameters	mg/L						
Total Dissolved Solids			216		210		232
Total Suspended Solids			77		<10		<10
Major Constituents - Commons Ions	mg/L						
Alkalinity as CaCO3			210		190		200
Calcium (DIS)			46		42		47
Chloride			<1		1		1
Fluoride			<0.1		0.3		0.3
Hardness as CaCO3			207		198		222
Magnesium (DIS)			22		22		25
Potassium (DIS)			1		1		1
Sodium (DIS)			1		2		3
Sulfate			8		20		34
Nutrients	mg/L						
Nitrate + Nitrite as N			0.33		0.23		<0.01
Phosphorus (TOT)							
Total Nitrogen as N (Persulfate)							
Metals - Trace Constituents	Multiple Units						
Aluminum (DIS)			<0.009		<0.009		<0.009
Antimony (DIS)			<0.0005		<0.0005		<0.0005
Antimony (TRC)							
Arsenic (DIS)			<0.001		<0.001		0.003
Arsenic (TRC)							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	MW-20	MW-20	MW-2A	MW-2A	MW-2B	MW-2B
Water	Sample Date	9/16/2019	9/19/2019	9/16/2019	9/18/2019	9/16/2019	9/18/2019
	Sample Time	5:42:00 PM	12:15:00 PM	12:40:00 PM	6:00:00 PM	12:40:00 PM	6:30:00 PM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	z	H19090556-012	z	H19090556-005	z	H19090556-006
	Sample Number	BBC-1909-23	BBC-1909-215	BBC-1909-3	BBC-1909-208	BBC-1909-4	BBC-1909-209
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Barium (DIS)	0.188		0.083		0.041	
	Barium (TRC)						
	Beryllium (DIS)	<0.0008		<0.0008		<0.0008	
	Beryllium (TRC)						
	Cadmium (DIS)	<0.00003		<0.00003		<0.00003	
	Cadmium (TRC)						
	Chromium (DIS)	<0.01		<0.01		<0.01	
	Chromium (TRC)						
	Cobalt (DIS)	<0.01		<0.01		<0.01	
	Cobalt (TRC)						
	Copper (DIS)	<0.002		<0.002		<0.002	
	Copper (TRC)						
	Iron (DIS)	<0.02		<0.02		<0.02	
	Iron (TRC)						
	Lead (DIS)	<0.0003		<0.0003		<0.0003	
	Lead (TRC)						
	Manganese (DIS)	<0.005		<0.005		0.005	
	Manganese (TRC)						
	Mercury (DIS)	<0.005		<0.005		<0.005	
	Mercury (TRC)						
	Molybdenum (DIS)	<0.002		<0.002		<0.002	
	Molybdenum (TRC)						
	Nickel (DIS)	<0.001		<0.001		<0.001	
	Nickel (TRC)						
	Selenium (DIS)	0.0002		0.0008		0.005	
	Selenium (TRC)						
	Silver (DIS)	<0.0002		<0.0002		<0.0002	
	Silver (TRC)						
	Strontium (DIS)	0.0677		0.0884		0.0862	
	Strontium (TRC)						
	Thallium (DIS)	<0.0002		<0.0002		0.0034	
	Thallium (TRC)						
	Uranium (DIS)	0.0005		0.0005		0.0021	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	MW-20	MW-20	MW-2A	MW-2A	MW-2B	MW-2B
Water	Sample Date	9/16/2019	9/19/2019	9/16/2019	9/18/2019	9/16/2019	9/18/2019
	Sample Time	5:42:00 PM	12:15:00 PM	12:40:00 PM	6:00:00 PM	12:40:00 PM	6:30:00 PM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	z	H19090556-012	z	H19090556-005	z	H19090556-006
	Sample Number	BBC-1909-23	BBC-1909-215	BBC-1909-3	BBC-1909-208	BBC-1909-4	BBC-1909-209
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Uranium (TRC)						
	Zinc (DIS)		<0.002		<0.002		<0.002
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	MW-3	MW-3	MW-3	MW-4A	MW-4A	MW-4B
Water	Sample Date	9/16/2019	9/19/2019	9/19/2019	9/16/2019	9/20/2019	9/16/2019
	Sample Time	12:50:00 PM	6:25:00 PM	7:00:00 PM	2:58:00 PM	9:55:00 AM	2:58:00 PM
	Lab	Hydro	Energy Labs	Energy Labs	Hydro	Energy Labs	Hydro
	Lab Number	z	H19090556-019	H19090556-020	z	H19090556-022	z
	Sample Number	BBC-1909-5	BBC-1909-222	BBC-1909-223	BBC-1909-6	BBC-1909-225	BBC-1909-7
	Remarks						
Field Parameters	Multiple Units						
Depth To Water		38.99	39.5	39.5	3.61	4.43	3.62
Dissolved Oxygen			0.07	0.07		0.17	
EH			159.234	159.234		213.436	
Field pH			7.15	7.15		7.19	
Field Specific Conductivity			788	788		569	
Flow							
Flow							
Staff Gauge							
Water Temperature			9.8	9.8		9.2	
Physical Parameters	mg/L						
Total Dissolved Solids			548	549		328	
Total Suspended Solids			<10	<10		<10	
Major Constituents - Commons Ions	mg/L						
Alkalinity as CaCO3			220	220		300	
Calcium (DIS)			72	72		84	
Chloride			1	1		5	
Fluoride			0.7	0.7		0.1	
Hardness as CaCO3			379	381		301	
Magnesium (DIS)			48	49		22	
Potassium (DIS)			3	3		2	
Sodium (DIS)			15	15		3	
Sulfate			218	218		15	
Nutrients	mg/L						
Nitrate + Nitrite as N			<0.01	<0.01		<0.01	
Phosphorus (TOT)							
Total Nitrogen as N (Persulfate)							
Metals - Trace Constituents	Multiple Units						
Aluminum (DIS)			<0.009	<0.009		<0.009	
Antimony (DIS)			<0.0005	<0.0005		<0.0005	
Antimony (TRC)							
Arsenic (DIS)			0.064	0.065		<0.001	
Arsenic (TRC)							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	MW-3	MW-3	MW-3	MW-4A	MW-4A	MW-4B
Water	Sample Date	9/16/2019	9/19/2019	9/19/2019	9/16/2019	9/20/2019	9/16/2019
	Sample Time	12:50:00 PM	6:25:00 PM	7:00:00 PM	2:58:00 PM	9:55:00 AM	2:58:00 PM
	Lab	Hydro	Energy Labs	Energy Labs	Hydro	Energy Labs	Hydro
	Lab Number	z	H19090556-019	H19090556-020	z	H19090556-022	z
	Sample Number	BBC-1909-5	BBC-1909-222	BBC-1909-223	BBC-1909-6	BBC-1909-225	BBC-1909-7
	Remarks						
Metals - Trace Constituents	Multiple Units						
Barium (DIS)		0.011	0.011		0.21		
Barium (TRC)							
Beryllium (DIS)		<0.0008	<0.0008		<0.0008		
Beryllium (TRC)							
Cadmium (DIS)		<0.00003	<0.00003		<0.00003		
Cadmium (TRC)							
Chromium (DIS)		<0.01	<0.01		<0.01		
Chromium (TRC)							
Cobalt (DIS)		<0.01	<0.01		<0.01		
Cobalt (TRC)							
Copper (DIS)		<0.002	<0.002		<0.002		
Copper (TRC)							
Iron (DIS)		0.99	1		0.08		
Iron (TRC)							
Lead (DIS)		<0.0003	<0.0003		<0.0003		
Lead (TRC)							
Manganese (DIS)		0.014	0.014		0.386		
Manganese (TRC)							
Mercury (DIS)		<0.005	<0.005		<0.005		
Mercury (TRC)							
Molybdenum (DIS)		<0.002	<0.002		<0.002		
Molybdenum (TRC)							
Nickel (DIS)		<0.001	<0.001		0.001		
Nickel (TRC)							
Selenium (DIS)		<0.0002	<0.0002		<0.0002		
Selenium (TRC)							
Silver (DIS)		<0.0002	<0.0002		<0.0002		
Silver (TRC)							
Strontium (DIS)		13.3 L	13.3 L		0.187		
Strontium (TRC)							
Thallium (DIS)		0.0003	0.0003		<0.0002		
Thallium (TRC)							
Uranium (DIS)		0.001	0.001		0.0004		

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	MW-3	MW-3	MW-3	MW-4A	MW-4A	MW-4B
Water	Sample Date	9/16/2019	9/19/2019	9/19/2019	9/16/2019	9/20/2019	9/16/2019
	Sample Time	12:50:00 PM	6:25:00 PM	7:00:00 PM	2:58:00 PM	9:55:00 AM	2:58:00 PM
	Lab	Hydro	Energy Labs	Energy Labs	Hydro	Energy Labs	Hydro
	Lab Number	z	H19090556-019	H19090556-020	z	H19090556-022	z
	Sample Number	BBC-1909-5	BBC-1909-222	BBC-1909-223	BBC-1909-6	BBC-1909-225	BBC-1909-7
	Remarks						
	Metals - Trace Constituents Multiple Units						
	Uranium (TRC)						
	Zinc (DIS)		<0.002	<0.002		<0.002	
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 11/6/2019 11:12:29 AM

Sample Type:	Station (Site)	MW-4B	MW-6A	MW-6A	MW-6B	MW-6B	MW-7
Water	Sample Date	9/20/2019	9/16/2019	9/19/2019	9/16/2019	9/19/2019	9/16/2019
	Sample Time	10:25:00 AM	5:49:00 PM	12:55:00 PM	5:48:00 PM	1:30:00 PM	5:46:00 PM
	Lab	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs	Hydro
	Lab Number	H19090556-023	z	H19090556-013	z	H19090556-014	z
	Sample Number	BBC-1909-226	BBC-1909-8	BBC-1909-216	BBC-1909-9	BBC-1909-217	BBC-1909-10
	Remarks						

Field Parameters	Multiple Units					
Depth To Water	4.05	8.44	8.45	11.6	11.7	32.03
Dissolved Oxygen	0.08		7.13		3.66	
EH	198.961		267.768		256.493	
Field pH	7.56		7.66		7.7	
Field Specific Conductivity	449		437		454	
Flow						
Flow						
Staff Gauge						
Water Temperature	6.7		9.6		7.1	
Physical Parameters	mg/L					
Total Dissolved Solids	250		244		252	
Total Suspended Solids	<10		28		<10	
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	230		230		230	
Calcium (DIS)	61		53		47	
Chloride	2		1		<1	
Fluoride	0.1		0.2		0.5	
Hardness as CaCO3	232		229		210	
Magnesium (DIS)	19		23		23	
Potassium (DIS)	1		<1		1	
Sodium (DIS)	2		3		15	
Sulfate	15		15		23	
Nutrients	mg/L					
Nitrate + Nitrite as N	0.04		0.14		0.09	
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009		<0.009		<0.009	
Antimony (DIS)	<0.0005		<0.0005		<0.0005	
Antimony (TRC)						
Arsenic (DIS)	<0.001		<0.001		<0.001	
Arsenic (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	MW-4B	MW-6A	MW-6A	MW-6B	MW-6B	MW-7
Water	Sample Date	9/20/2019	9/16/2019	9/19/2019	9/16/2019	9/19/2019	9/16/2019
	Sample Time	10:25:00 AM	5:49:00 PM	12:55:00 PM	5:48:00 PM	1:30:00 PM	5:46:00 PM
	Lab	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs	Hydro
	Lab Number	H19090556-023	z	H19090556-013	z	H19090556-014	z
	Sample Number	BBC-1909-226	BBC-1909-8	BBC-1909-216	BBC-1909-9	BBC-1909-217	BBC-1909-10
	Remarks						

Metals - Trace Constituents	Multiple Units		
Barium (DIS)	0.125	0.175	0.104
Barium (TRC)			
Beryllium (DIS)	<0.0008	<0.0008	<0.0008
Beryllium (TRC)			
Cadmium (DIS)	<0.00003	<0.00003	<0.00003
Cadmium (TRC)			
Chromium (DIS)	<0.01	<0.01	<0.01
Chromium (TRC)			
Cobalt (DIS)	<0.01	<0.01	<0.01
Cobalt (TRC)			
Copper (DIS)	<0.002	<0.002	<0.002
Copper (TRC)			
Iron (DIS)	<0.02	<0.02	<0.02
Iron (TRC)			
Lead (DIS)	<0.0003	<0.0003	<0.0003
Lead (TRC)			
Manganese (DIS)	<0.005	<0.005	<0.005
Manganese (TRC)			
Mercury (DIS)	<0.005	<0.005	<0.005
Mercury (TRC)			
Molybdenum (DIS)	<0.002	<0.002	<0.002
Molybdenum (TRC)			
Nickel (DIS)	<0.001	<0.001	<0.001
Nickel (TRC)			
Selenium (DIS)	<0.0002	<0.0002	<0.0002
Selenium (TRC)			
Silver (DIS)	<0.0002	<0.0002	<0.0002
Silver (TRC)			
Strontium (DIS)	0.164	0.155	0.225
Strontium (TRC)			
Thallium (DIS)	<0.0002	<0.0002	<0.0002
Thallium (TRC)			
Uranium (DIS)	0.0006	0.0007	0.0006

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	MW-4B	MW-6A	MW-6A	MW-6B	MW-6B	MW-7
Water	Sample Date	9/20/2019	9/16/2019	9/19/2019	9/16/2019	9/19/2019	9/16/2019
	Sample Time	10:25:00 AM	5:49:00 PM	12:55:00 PM	5:48:00 PM	1:30:00 PM	5:46:00 PM
	Lab	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs	Hydro
	Lab Number	H19090556-023	z	H19090556-013	z	H19090556-014	z
	Sample Number	BBC-1909-226	BBC-1909-8	BBC-1909-216	BBC-1909-9	BBC-1909-217	BBC-1909-10
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Uranium (TRC)						
	Zinc (DIS)	<0.002		<0.002		<0.002	
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 11/6/2019 11:12:29 AM

Sample Type:	Station (Site)	MW-7	MW-8	MW-8	MW-9	MW-9	PW-1
Water	Sample Date	9/19/2019	9/16/2019	9/19/2019	9/16/2019	9/20/2019	9/16/2019
	Sample Time	3:20:00 PM	5:55:00 PM	3:00:00 PM	12:20:00 PM	12:40:00 PM	12:25:00 PM
	Lab	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs	Hydro
	Lab Number	H19090556-015	z	H19090556-016	z	H19090556-024	z
	Sample Number	BBC-1909-218	BBC-1909-11	BBC-1909-219	BBC-1909-12	BBC-1909-227	BBC-1909-29
	Remarks						

Field Parameters	Multiple Units					
Depth To Water	32.06	30.14	30.21	51.08	51.26	100.53
Dissolved Oxygen	4		0.08		0.06	
EH	190.417		102.608		173.536	
Field pH	7.75		7.98		7.03	
Field Specific Conductivity	526		308		791	
Flow						
Flow						
Staff Gauge						
Water Temperature	9.9		7.6		9.2	
Physical Parameters	mg/L					
Total Dissolved Solids	327		162		529	
Total Suspended Solids	100		<10		<10	
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	230		150		250	
Calcium (DIS)	57		25		82	
Chloride	4		<1		1	
Fluoride	0.3		0.2		0.5	
Hardness as CaCO3	291		156		405	
Magnesium (DIS)	36		23		49	
Potassium (DIS)	1		<1		4	
Sodium (DIS)	3		3		5	
Sulfate	70		15		195	
Nutrients	mg/L					
Nitrate + Nitrite as N	<0.01		<0.01		<0.01	
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	0.037		<0.009		<0.009	
Antimony (DIS)	<0.0005		<0.0005		<0.0005	
Antimony (TRC)						
Arsenic (DIS)	0.001		0.002		0.012	
Arsenic (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	MW-7	MW-8	MW-8	MW-9	MW-9	PW-1
Water	Sample Date	9/19/2019	9/16/2019	9/19/2019	9/16/2019	9/20/2019	9/16/2019
	Sample Time	3:20:00 PM	5:55:00 PM	3:00:00 PM	12:20:00 PM	12:40:00 PM	12:25:00 PM
	Lab	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs	Hydro
	Lab Number	H19090556-015	z	H19090556-016	z	H19090556-024	z
	Sample Number	BBC-1909-218	BBC-1909-11	BBC-1909-219	BBC-1909-12	BBC-1909-227	BBC-1909-29
	Remarks						

Metals - Trace Constituents	Multiple Units		
Barium (DIS)	0.04	0.076	0.014
Barium (TRC)			
Beryllium (DIS)	<0.0008	<0.0008	<0.0008
Beryllium (TRC)			
Cadmium (DIS)	<0.00003	<0.00003	<0.00003
Cadmium (TRC)			
Chromium (DIS)	<0.01	<0.01	<0.01
Chromium (TRC)			
Cobalt (DIS)	<0.01	<0.01	<0.01
Cobalt (TRC)			
Copper (DIS)	<0.002	<0.002	<0.002
Copper (TRC)			
Iron (DIS)	0.1	0.09	0.85
Iron (TRC)			
Lead (DIS)	0.0014	<0.0003	0.0008
Lead (TRC)			
Manganese (DIS)	0.015	0.009	0.083
Manganese (TRC)			
Mercury (DIS)	<0.005	<0.005	<0.005
Mercury (TRC)			
Molybdenum (DIS)	0.003	<0.002	<0.002
Molybdenum (TRC)			
Nickel (DIS)	0.001	<0.001	<0.001
Nickel (TRC)			
Selenium (DIS)	<0.0002	<0.0002	<0.0002
Selenium (TRC)			
Silver (DIS)	<0.0002	<0.0002	<0.0002
Silver (TRC)			
Strontium (DIS)	0.158	0.0832	1.22 L
Strontium (TRC)			
Thallium (DIS)	<0.0002	<0.0002	0.0032
Thallium (TRC)			
Uranium (DIS)	0.002	0.0007	0.0009

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	MW-7	MW-8	MW-8	MW-9	MW-9	PW-1
Water	Sample Date	9/19/2019	9/16/2019	9/19/2019	9/16/2019	9/20/2019	9/16/2019
	Sample Time	3:20:00 PM	5:55:00 PM	3:00:00 PM	12:20:00 PM	12:40:00 PM	12:25:00 PM
	Lab	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs	Hydro
	Lab Number	H19090556-015	z	H19090556-016	z	H19090556-024	z
	Sample Number	BBC-1909-218	BBC-1909-11	BBC-1909-219	BBC-1909-12	BBC-1909-227	BBC-1909-29
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Uranium (TRC)						
	Zinc (DIS)	<0.002		<0.002		<0.002	
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 11/6/2019 11:12:29 AM

Sample Type:	Station (Site)	PW-10	PW-10	PW-2	PW-2	PW-3	PW-3
Water	Sample Date	9/16/2019	9/17/2019	9/16/2019	9/16/2019	9/16/2019	9/18/2019
	Sample Time	12:51:00 PM	12:05:00 PM	1:04:00 PM	4:40:00 PM	12:30:00 PM	4:25:00 PM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	z	H19090441-002	z	H19090441-001	z	H19090556-004
	Sample Number	BBC-1909-38	BBC-1909-201	BBC-1909-30	BBC-1909-200	BBC-1909-31	BBC-1909-207
	Remarks						

Field Parameters	Multiple Units					
Depth To Water	44.84	44.86	51	51	11.15	11.2
Dissolved Oxygen		2.36		0.05		0.03
EH		172.736		94.553		91.276
Field pH		7.45		7.4		7.29
Field Specific Conductivity		759		538		754
Flow						
Flow						
Staff Gauge						
Water Temperature		9.2		9.1		7.2
Physical Parameters	mg/L					
Total Dissolved Solids		522		315		480
Total Suspended Solids		<10		<10		10
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3		220		250		270
Calcium (DIS)		75		58		84
Chloride		<1		1		1
Fluoride		0.8		0.8		0.4
Hardness as CaCO3		386		291		398
Magnesium (DIS)		48		36		46
Potassium (DIS)		5		5		4
Sodium (DIS)		11		3		5
Sulfate		190		51		151
Nutrients	mg/L					
Nitrate + Nitrite as N		<0.01		0.01		0.03
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)		<0.009		<0.009		<0.009
Antimony (DIS)		<0.0005		<0.0005		<0.0005
Antimony (TRC)						
Arsenic (DIS)		0.063		0.005		0.006
Arsenic (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	PW-10	PW-10	PW-2	PW-2	PW-3	PW-3
Water	Sample Date	9/16/2019	9/17/2019	9/16/2019	9/16/2019	9/16/2019	9/18/2019
	Sample Time	12:51:00 PM	12:05:00 PM	1:04:00 PM	4:40:00 PM	12:30:00 PM	4:25:00 PM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	z	H19090441-002	z	H19090441-001	z	H19090556-004
	Sample Number	BBC-1909-38	BBC-1909-201	BBC-1909-30	BBC-1909-200	BBC-1909-31	BBC-1909-207
	Remarks						

Metals - Trace Constituents Multiple Units			
Barium (DIS)	0.033	0.034	0.011
Barium (TRC)			
Beryllium (DIS)	<0.0008	<0.0008	<0.0008
Beryllium (TRC)			
Cadmium (DIS)	<0.00003	<0.00003	<0.00003
Cadmium (TRC)			
Chromium (DIS)	<0.01	<0.01	<0.01
Chromium (TRC)			
Cobalt (DIS)	<0.01	<0.01	<0.01
Cobalt (TRC)			
Copper (DIS)	<0.002	<0.002	<0.002
Copper (TRC)			
Iron (DIS)	0.41	3.36	5.46
Iron (TRC)			
Lead (DIS)	<0.0003	<0.0003	<0.0003
Lead (TRC)			
Manganese (DIS)	0.109	0.061	0.045
Manganese (TRC)			
Mercury (DIS)	<0.005	<0.005	<0.005
Mercury (TRC)			
Molybdenum (DIS)	<0.002	<0.002	<0.002
Molybdenum (TRC)			
Nickel (DIS)	<0.001	<0.001	<0.001
Nickel (TRC)			
Selenium (DIS)	<0.0002	<0.0002	<0.0002
Selenium (TRC)			
Silver (DIS)	<0.0002	<0.0002	<0.0002
Silver (TRC)			
Strontium (DIS)	12.6 L	0.0865	0.313
Strontium (TRC)			
Thallium (DIS)	<0.0002	<0.0002	<0.0002
Thallium (TRC)			
Uranium (DIS)	0.0008	0.0003	0.0011

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	PW-10	PW-10	PW-2	PW-2	PW-3	PW-3
Water	Sample Date	9/16/2019	9/17/2019	9/16/2019	9/16/2019	9/16/2019	9/18/2019
	Sample Time	12:51:00 PM	12:05:00 PM	1:04:00 PM	4:40:00 PM	12:30:00 PM	4:25:00 PM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	z	H19090441-002	z	H19090441-001	z	H19090556-004
	Sample Number	BBC-1909-38	BBC-1909-201	BBC-1909-30	BBC-1909-200	BBC-1909-31	BBC-1909-207
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Uranium (TRC)						
	Zinc (DIS)		0.003		<0.002		<0.002
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	PW-4	PW-4	PW-5	PW-6N	PW-7	PW-8
Water	Sample Date	9/16/2019	9/18/2019	9/16/2019	9/16/2019	9/16/2019	9/16/2019
	Sample Time	12:42:00 PM	1:10:00 PM	1:05:00 PM	12:55:00 PM	3:00:00 PM	12:43:00 PM
	Lab	Hydro	Energy Labs	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	H19090556-001	z	z	z	z
	Sample Number	BBC-1909-32	BBC-1909-204	BBC-1909-33	BBC-1909-34	BBC-1909-35	BBC-1909-36
	Remarks						

Field Parameters	Multiple Units					
Depth To Water	52.4	52.48	315.35	305.79	Shut in	43.54
Dissolved Oxygen		1.66				
EH		125.97				
Field pH		6.95				
Field Specific Conductivity		654				
Flow						
Flow						
Staff Gauge						
Water Temperature		9				
Physical Parameters	mg/L					
Total Dissolved Solids		436				
Total Suspended Solids		25				
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3		170				
Calcium (DIS)		70				
Chloride		1				
Fluoride		0.3				
Hardness as CaCO3		320				
Magnesium (DIS)		35				
Potassium (DIS)		2				
Sodium (DIS)		4				
Sulfate		176				
Nutrients	mg/L					
Nitrate + Nitrite as N		0.04				
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)		<0.009				
Antimony (DIS)		<0.0005				
Antimony (TRC)						
Arsenic (DIS)		0.063				
Arsenic (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	PW-4	PW-4	PW-5	PW-6N	PW-7	PW-8
Water	Sample Date	9/16/2019	9/18/2019	9/16/2019	9/16/2019	9/16/2019	9/16/2019
	Sample Time	12:42:00 PM	1:10:00 PM	1:05:00 PM	12:55:00 PM	3:00:00 PM	12:43:00 PM
	Lab	Hydro	Energy Labs	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	H19090556-001	z	z	z	z
	Sample Number	BBC-1909-32	BBC-1909-204	BBC-1909-33	BBC-1909-34	BBC-1909-35	BBC-1909-36
	Remarks						

Metals - Trace Constituents	Multiple Units
Barium (DIS)	0.048
Barium (TRC)	
Beryllium (DIS)	<0.0008
Beryllium (TRC)	
Cadmium (DIS)	<0.00003
Cadmium (TRC)	
Chromium (DIS)	<0.01
Chromium (TRC)	
Cobalt (DIS)	<0.01
Cobalt (TRC)	
Copper (DIS)	<0.002
Copper (TRC)	
Iron (DIS)	10.5
Iron (TRC)	
Lead (DIS)	<0.0003
Lead (TRC)	
Manganese (DIS)	0.137
Manganese (TRC)	
Mercury (DIS)	<0.005
Mercury (TRC)	
Molybdenum (DIS)	<0.002
Molybdenum (TRC)	
Nickel (DIS)	0.005
Nickel (TRC)	
Selenium (DIS)	<0.0002
Selenium (TRC)	
Silver (DIS)	<0.0002
Silver (TRC)	
Strontium (DIS)	9.88 L
Strontium (TRC)	
Thallium (DIS)	0.0005
Thallium (TRC)	
Uranium (DIS)	0.0011

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	PW-4	PW-4	PW-5	PW-6N	PW-7	PW-8
Water	Sample Date	9/16/2019	9/18/2019	9/16/2019	9/16/2019	9/16/2019	9/16/2019
	Sample Time	12:42:00 PM	1:10:00 PM	1:05:00 PM	12:55:00 PM	3:00:00 PM	12:43:00 PM
	Lab	Hydro	Energy Labs	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	H19090556-001	z	z	z	z
	Sample Number	BBC-1909-32	BBC-1909-204	BBC-1909-33	BBC-1909-34	BBC-1909-35	BBC-1909-36
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Uranium (TRC)						
	Zinc (DIS)		0.007				
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 11/6/2019 11:12:29 AM

Sample Type:	Station (Site)	PW-8	PW-9	PW-9	PZ-01	PZ-02	PZ-03
Water	Sample Date	9/17/2019	9/16/2019	9/17/2019	9/16/2019	9/16/2019	9/16/2019
	Sample Time	5:55:00 PM	12:52:00 PM	4:05:00 PM	3:30:00 PM	3:26:00 PM	3:15:00 PM
	Lab	Energy Labs	Hydro	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	H19090441-004	z	H19090441-003	z	z	z
	Sample Number	BBC-1909-203	BBC-1909-37	BBC-1909-202	BBC-1909-39	BBC-1909-40	BBC-1909-41
	Remarks						

Field Parameters	Multiple Units					
Depth To Water	43.62	46.88	47.02	2.91	3.13	4.2
Dissolved Oxygen	0.02		0.03			
EH	170.857		166.755			
Field pH	7.21		7.05			
Field Specific Conductivity	530		824			
Flow						
Flow						
Staff Gauge						
Water Temperature	7.9		8.5			
Physical Parameters	mg/L					
Total Dissolved Solids	336		584			
Total Suspended Solids	<10		<10			
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	190		210			
Calcium (DIS)	62		82			
Chloride	<1		1			
Fluoride	0.4		0.6			
Hardness as CaCO3	282		428			
Magnesium (DIS)	31		54			
Potassium (DIS)	2		3			
Sodium (DIS)	3		13			
Sulfate	91		227			
Nutrients	mg/L					
Nitrate + Nitrite as N	<0.01		<0.01			
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009		<0.009			
Antimony (DIS)	0.0008		<0.0005			
Antimony (TRC)						
Arsenic (DIS)	0.012		0.085			
Arsenic (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	PW-8	PW-9	PW-9	PZ-01	PZ-02	PZ-03
Water	Sample Date	9/17/2019	9/16/2019	9/17/2019	9/16/2019	9/16/2019	9/16/2019
	Sample Time	5:55:00 PM	12:52:00 PM	4:05:00 PM	3:30:00 PM	3:26:00 PM	3:15:00 PM
	Lab	Energy Labs	Hydro	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	H19090441-004	z	H19090441-003	z	z	z
	Sample Number	BBC-1909-203	BBC-1909-37	BBC-1909-202	BBC-1909-39	BBC-1909-40	BBC-1909-41
	Remarks						

Metals - Trace Constituents	Multiple Units					
Barium (DIS)	0.037	0.012				
Barium (TRC)						
Beryllium (DIS)	<0.0008	<0.0008				
Beryllium (TRC)						
Cadmium (DIS)	<0.00003	<0.00003				
Cadmium (TRC)						
Chromium (DIS)	<0.01	<0.01				
Chromium (TRC)						
Cobalt (DIS)	<0.01	<0.01				
Cobalt (TRC)						
Copper (DIS)	<0.002	<0.002				
Copper (TRC)						
Iron (DIS)	0.88	2.13				
Iron (TRC)						
Lead (DIS)	0.0079	<0.0003				
Lead (TRC)						
Manganese (DIS)	0.096	0.032				
Manganese (TRC)						
Mercury (DIS)	<0.005	<0.005				
Mercury (TRC)						
Molybdenum (DIS)	<0.002	<0.002				
Molybdenum (TRC)						
Nickel (DIS)	<0.001	<0.001				
Nickel (TRC)						
Selenium (DIS)	<0.0002	<0.0002				
Selenium (TRC)						
Silver (DIS)	<0.0002	<0.0002				
Silver (TRC)						
Strontium (DIS)	0.699 L	9.08 L				
Strontium (TRC)						
Thallium (DIS)	0.0025	0.0008				
Thallium (TRC)						
Uranium (DIS)	0.001	0.0014				

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	PW-8	PW-9	PW-9	PZ-01	PZ-02	PZ-03
Water	Sample Date	9/17/2019	9/16/2019	9/17/2019	9/16/2019	9/16/2019	9/16/2019
	Sample Time	5:55:00 PM	12:52:00 PM	4:05:00 PM	3:30:00 PM	3:26:00 PM	3:15:00 PM
	Lab	Energy Labs	Hydro	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	H19090441-004	z	H19090441-003	z	z	z
	Sample Number	BBC-1909-203	BBC-1909-37	BBC-1909-202	BBC-1909-39	BBC-1909-40	BBC-1909-41
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Uranium (TRC)						
	Zinc (DIS)	0.003		<0.002			
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	PZ-04	PZ-05	PZ-07A	PZ-07B	PZ-08	PZ-09
Water	Sample Date	9/16/2019	9/16/2019	9/16/2019	9/16/2019	9/16/2019	9/16/2019
	Sample Time	3:02:00 PM	3:06:00 PM	6:37:00 PM	6:38:00 PM	2:45:00 PM	3:34:00 PM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1909-42	BBC-1909-43	BBC-1909-44	BBC-1909-45	BBC-1909-46	BBC-1909-47
	Remarks						
Field Parameters	Multiple Units						
	Depth To Water	1.71	3.31	1.81	3.07	3.91	5.05
	Dissolved Oxygen						
	EH						
	Field pH						
	Field Specific Conductivity						
	Flow						
	Flow						
	Staff Gauge						
	Water Temperature						
Physical Parameters	mg/L						
	Total Dissolved Solids						
	Total Suspended Solids						
Major Constituents - Commons Ions	mg/L						
	Alkalinity as CaCO3						
	Calcium (DIS)						
	Chloride						
	Fluoride						
	Hardness as CaCO3						
	Magnesium (DIS)						
	Potassium (DIS)						
	Sodium (DIS)						
	Sulfate						
Nutrients	mg/L						
	Nitrate + Nitrite as N						
	Phosphorus (TOT)						
	Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units						
	Aluminum (DIS)						
	Antimony (DIS)						
	Antimony (TRC)						
	Arsenic (DIS)						
	Arsenic (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	PZ-04	PZ-05	PZ-07A	PZ-07B	PZ-08	PZ-09
Water	Sample Date	9/16/2019	9/16/2019	9/16/2019	9/16/2019	9/16/2019	9/16/2019
	Sample Time	3:02:00 PM	3:06:00 PM	6:37:00 PM	6:38:00 PM	2:45:00 PM	3:34:00 PM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1909-42	BBC-1909-43	BBC-1909-44	BBC-1909-45	BBC-1909-46	BBC-1909-47
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Barium (DIS)						
	Barium (TRC)						
	Beryllium (DIS)						
	Beryllium (TRC)						
	Cadmium (DIS)						
	Cadmium (TRC)						
	Chromium (DIS)						
	Chromium (TRC)						
	Cobalt (DIS)						
	Cobalt (TRC)						
	Copper (DIS)						
	Copper (TRC)						
	Iron (DIS)						
	Iron (TRC)						
	Lead (DIS)						
	Lead (TRC)						
	Manganese (DIS)						
	Manganese (TRC)						
	Mercury (DIS)						
	Mercury (TRC)						
	Molybdenum (DIS)						
	Molybdenum (TRC)						
	Nickel (DIS)						
	Nickel (TRC)						
	Selenium (DIS)						
	Selenium (TRC)						
	Silver (DIS)						
	Silver (TRC)						
	Strontium (DIS)						
	Strontium (TRC)						
	Thallium (DIS)						
	Thallium (TRC)						
	Uranium (DIS)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	PZ-04	PZ-05	PZ-07A	PZ-07B	PZ-08	PZ-09
Water	Sample Date	9/16/2019	9/16/2019	9/16/2019	9/16/2019	9/16/2019	9/16/2019
	Sample Time	3:02:00 PM	3:06:00 PM	6:37:00 PM	6:38:00 PM	2:45:00 PM	3:34:00 PM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1909-42	BBC-1909-43	BBC-1909-44	BBC-1909-45	BBC-1909-46	BBC-1909-47
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Uranium (TRC)						
	Zinc (DIS)						
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	PZ-10	PZ-11R	PZ-12	PZ-13	PZ-14	PZ-15
Water	Sample Date	9/16/2019	9/16/2019	9/16/2019	9/16/2019	9/16/2019	9/16/2019
	Sample Time	12:35:00 PM	2:48:00 PM	12:32:00 PM	3:38:00 PM	3:20:00 PM	2:53:00 PM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1909-48	BBC-1909-49	BBC-1909-50	BBC-1909-51	BBC-1909-52	BBC-1909-53
	Remarks						
Field Parameters	Multiple Units						
	Depth To Water	8.57	5.87	5.37	8.48	5.3	3.08
	Dissolved Oxygen						
	EH						
	Field pH						
	Field Specific Conductivity						
	Flow						
	Flow						
	Staff Gauge						
	Water Temperature						
Physical Parameters	mg/L						
	Total Dissolved Solids						
	Total Suspended Solids						
Major Constituents - Commons Ions	mg/L						
	Alkalinity as CaCO3						
	Calcium (DIS)						
	Chloride						
	Fluoride						
	Hardness as CaCO3						
	Magnesium (DIS)						
	Potassium (DIS)						
	Sodium (DIS)						
	Sulfate						
Nutrients	mg/L						
	Nitrate + Nitrite as N						
	Phosphorus (TOT)						
	Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units						
	Aluminum (DIS)						
	Antimony (DIS)						
	Antimony (TRC)						
	Arsenic (DIS)						
	Arsenic (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	PZ-10	PZ-11R	PZ-12	PZ-13	PZ-14	PZ-15
Water	Sample Date	9/16/2019	9/16/2019	9/16/2019	9/16/2019	9/16/2019	9/16/2019
	Sample Time	12:35:00 PM	2:48:00 PM	12:32:00 PM	3:38:00 PM	3:20:00 PM	2:53:00 PM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1909-48	BBC-1909-49	BBC-1909-50	BBC-1909-51	BBC-1909-52	BBC-1909-53
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Barium (DIS)						
	Barium (TRC)						
	Beryllium (DIS)						
	Beryllium (TRC)						
	Cadmium (DIS)						
	Cadmium (TRC)						
	Chromium (DIS)						
	Chromium (TRC)						
	Cobalt (DIS)						
	Cobalt (TRC)						
	Copper (DIS)						
	Copper (TRC)						
	Iron (DIS)						
	Iron (TRC)						
	Lead (DIS)						
	Lead (TRC)						
	Manganese (DIS)						
	Manganese (TRC)						
	Mercury (DIS)						
	Mercury (TRC)						
	Molybdenum (DIS)						
	Molybdenum (TRC)						
	Nickel (DIS)						
	Nickel (TRC)						
	Selenium (DIS)						
	Selenium (TRC)						
	Silver (DIS)						
	Silver (TRC)						
	Strontium (DIS)						
	Strontium (TRC)						
	Thallium (DIS)						
	Thallium (TRC)						
	Uranium (DIS)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	PZ-10	PZ-11R	PZ-12	PZ-13	PZ-14	PZ-15
Water	Sample Date	9/16/2019	9/16/2019	9/16/2019	9/16/2019	9/16/2019	9/16/2019
	Sample Time	12:35:00 PM	2:48:00 PM	12:32:00 PM	3:38:00 PM	3:20:00 PM	2:53:00 PM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1909-48	BBC-1909-49	BBC-1909-50	BBC-1909-51	BBC-1909-52	BBC-1909-53
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Uranium (TRC)						
	Zinc (DIS)						
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 11/6/2019 11:12:29 AM

Sample Type:	Station (Site)	RINSATE BLANK	SC12-116	SC15-184	SC15-184	SC15-185	SC15-185
Water	Sample Date	9/20/2019	9/16/2019	9/16/2019	9/20/2019	9/16/2019	9/23/2019
	Sample Time	11:20:00 AM	5:33:00 PM	4:36:00 PM	2:25:00 PM	4:25:00 PM	12:50:00 PM
	Lab	Energy Labs	Hydro	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	H19090556-025	z	z	H19090556-026	z	H19090608-011
	Sample Number	BBC-1909-228	BBC-1909-24	BBC-1909-25	BBC-1909-229	BBC-1909-26	BBC-1909-232
	Remarks						

Field Parameters	Multiple Units					
Depth To Water		96.33	Shut in	0	29.3	29.59
Dissolved Oxygen				7.26		4.64
EH				241.461		253.378
Field pH				8		7.94
Field Specific Conductivity				368		395
Flow						
Flow						
Staff Gauge						
Water Temperature				6.7		6.6
Physical Parameters	mg/L					
Total Dissolved Solids	<10			195		227
Total Suspended Solids	<10			<10		<10
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	<4			190		210
Calcium (DIS)	<1			36		44
Chloride	<1			<1		<1
Fluoride	<0.1			0.2		0.1
Hardness as CaCO3	<1			190		197
Magnesium (DIS)	<1			25		21
Potassium (DIS)	<1			<1		2
Sodium (DIS)	<1			2		4
Sulfate	<1			16		10
Nutrients	mg/L					
Nitrate + Nitrite as N	<0.01			0.28		0.24
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009			<0.009		0.011
Antimony (DIS)	<0.0005			<0.0005		<0.0005
Antimony (TRC)						
Arsenic (DIS)	<0.001			<0.001		<0.001
Arsenic (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	RINSATE BLANK	SC12-116	SC15-184	SC15-184	SC15-185	SC15-185
Water	Sample Date	9/20/2019	9/16/2019	9/16/2019	9/20/2019	9/16/2019	9/23/2019
	Sample Time	11:20:00 AM	5:33:00 PM	4:36:00 PM	2:25:00 PM	4:25:00 PM	12:50:00 PM
	Lab	Energy Labs	Hydro	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	H19090556-025	z	z	H19090556-026	z	H19090608-011
	Sample Number	BBC-1909-228	BBC-1909-24	BBC-1909-25	BBC-1909-229	BBC-1909-26	BBC-1909-232
	Remarks						
Metals - Trace Constituents	Multiple Units						
Barium (DIS)		<0.003		0.087		0.069	
Barium (TRC)							
Beryllium (DIS)		<0.0008		<0.0008		<0.0008	
Beryllium (TRC)							
Cadmium (DIS)		<0.00003		<0.00003		<0.00003	
Cadmium (TRC)							
Chromium (DIS)		<0.01		<0.01		<0.01	
Chromium (TRC)							
Cobalt (DIS)		<0.01		<0.01		<0.01	
Cobalt (TRC)							
Copper (DIS)		<0.002		<0.002		<0.002	
Copper (TRC)							
Iron (DIS)		<0.02		<0.02		<0.02	
Iron (TRC)							
Lead (DIS)		<0.0003		<0.0003		<0.0003	
Lead (TRC)							
Manganese (DIS)		<0.005		<0.005		<0.005	
Manganese (TRC)							
Mercury (DIS)		<0.005		<0.005		<0.005	
Mercury (TRC)							
Molybdenum (DIS)		<0.002		<0.002		0.004	
Molybdenum (TRC)							
Nickel (DIS)		<0.001		<0.001		<0.001	
Nickel (TRC)							
Selenium (DIS)		<0.0002		0.0011		<0.0002	
Selenium (TRC)							
Silver (DIS)		<0.0002		<0.0002		<0.0002	
Silver (TRC)							
Strontium (DIS)		0.0003		0.115		0.244	
Strontium (TRC)							
Thallium (DIS)		<0.0002		<0.0002		<0.0002	
Thallium (TRC)							
Uranium (DIS)		<0.0002		0.001		0.0031	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	RINSATE BLANK	SC12-116	SC15-184	SC15-184	SC15-185	SC15-185
Water	Sample Date	9/20/2019	9/16/2019	9/16/2019	9/20/2019	9/16/2019	9/23/2019
	Sample Time	11:20:00 AM	5:33:00 PM	4:36:00 PM	2:25:00 PM	4:25:00 PM	12:50:00 PM
	Lab	Energy Labs	Hydro	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	H19090556-025	z	z	H19090556-026	z	H19090608-011
	Sample Number	BBC-1909-228	BBC-1909-24	BBC-1909-25	BBC-1909-229	BBC-1909-26	BBC-1909-232
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Uranium (TRC)						
	Zinc (DIS)	<0.002			<0.002		<0.002
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	SC15-194	SC15-194	SC15-198	SC15-198	SEEP-1	SEEP-10
Water	Sample Date	9/16/2019	9/23/2019	9/16/2019	9/23/2019	9/24/2019	9/25/2019
	Sample Time	6:32:00 PM	11:50:00 AM	4:14:00 PM	1:40:00 PM	1:55:00 PM	10:05:00 AM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Hydro
	Lab Number	z	H19090608-010	z	H19090608-012	z	z
	Sample Number	BBC-1909-27	BBC-1909-231	BBC-1909-28	BBC-1909-233	BBC-1909-121	BBC-1909-139
	Remarks						

Field Parameters	Multiple Units					
Depth To Water	19.53	19.57	40.42	40.9		
Dissolved Oxygen		0.46		7.97		7.29
EH		168.057		255.976		
Field pH		7.84		7.83		7.72
Field Specific Conductivity		382		420		376
Flow						
Flow					NF-DRY	2.6
Staff Gauge						
Water Temperature		7.9		7.2		7.8
Physical Parameters	mg/L					
Total Dissolved Solids		225		236		
Total Suspended Solids		<10		<10		
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3		180		230		
Calcium (DIS)		40		46		
Chloride		<1		2		
Fluoride		0.3		0.1		
Hardness as CaCO3		193		216		
Magnesium (DIS)		23		25		
Potassium (DIS)		<1		<1		
Sodium (DIS)		2		3		
Sulfate		29		6		
Nutrients	mg/L					
Nitrate + Nitrite as N		<0.01		0.6		
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)		<0.009		<0.009		
Antimony (DIS)		<0.0005		<0.0005		
Antimony (TRC)						
Arsenic (DIS)		0.001		<0.001		
Arsenic (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SC15-194	SC15-194	SC15-198	SC15-198	SEEP-1	SEEP-10
Water	Sample Date	9/16/2019	9/23/2019	9/16/2019	9/23/2019	9/24/2019	9/25/2019
	Sample Time	6:32:00 PM	11:50:00 AM	4:14:00 PM	1:40:00 PM	1:55:00 PM	10:05:00 AM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Hydro
	Lab Number	z	H19090608-010	z	H19090608-012	z	z
	Sample Number	BBC-1909-27	BBC-1909-231	BBC-1909-28	BBC-1909-233	BBC-1909-121	BBC-1909-139
	Remarks						
Metals - Trace Constituents	Multiple Units						
Barium (DIS)		0.035		0.365			
Barium (TRC)							
Beryllium (DIS)		<0.0008		<0.0008			
Beryllium (TRC)							
Cadmium (DIS)		<0.00003		<0.00003			
Cadmium (TRC)							
Chromium (DIS)		<0.01		<0.01			
Chromium (TRC)							
Cobalt (DIS)		<0.01		<0.01			
Cobalt (TRC)							
Copper (DIS)		<0.002		<0.002			
Copper (TRC)							
Iron (DIS)		0.03		<0.02			
Iron (TRC)							
Lead (DIS)		<0.0003		<0.0003			
Lead (TRC)							
Manganese (DIS)		<0.005		<0.005			
Manganese (TRC)							
Mercury (DIS)		<0.005		0.005			
Mercury (TRC)							
Molybdenum (DIS)		<0.002		<0.002			
Molybdenum (TRC)							
Nickel (DIS)		<0.001		<0.001			
Nickel (TRC)							
Selenium (DIS)		<0.0002		0.0002			
Selenium (TRC)							
Silver (DIS)		<0.0002		<0.0002			
Silver (TRC)							
Strontium (DIS)		0.0702		0.101			
Strontium (TRC)							
Thallium (DIS)		<0.0002		<0.0002			
Thallium (TRC)							
Uranium (DIS)		0.0008		0.0007			

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SC15-194	SC15-194	SC15-198	SC15-198	SEEP-1	SEEP-10
Water	Sample Date	9/16/2019	9/23/2019	9/16/2019	9/23/2019	9/24/2019	9/25/2019
	Sample Time	6:32:00 PM	11:50:00 AM	4:14:00 PM	1:40:00 PM	1:55:00 PM	10:05:00 AM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Hydro
	Lab Number	z	H19090608-010	z	H19090608-012	z	z
	Sample Number	BBC-1909-27	BBC-1909-231	BBC-1909-28	BBC-1909-233	BBC-1909-121	BBC-1909-139
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Uranium (TRC)						
	Zinc (DIS)		<0.002		<0.002		
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SEEP-2	SEEP-3	SEEP-4	SEEP-5	SEEP-6	SEEP-7
Water	Sample Date	9/24/2019	9/25/2019	9/25/2019	9/25/2019	9/25/2019	9/25/2019
	Sample Time	5:15:00 PM	2:55:00 PM	11:40:00 AM	12:05:00 PM	11:55:00 AM	12:30:00 PM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1909-133	BBC-1909-151	BBC-1909-142	BBC-1909-144	BBC-1909-143	BBC-1909-145
	Remarks						
Field Parameters	Multiple Units						
	Depth To Water						
	Dissolved Oxygen	0.78		7.84	9.92	3.35	
	EH						
	Field pH	7.86		7.96	6.59	7.04	
	Field Specific Conductivity	411		67	76	84	
	Flow						
	Flow	NF	NF-DRY	NF	NM	NF	NF
	Staff Gauge						
	Water Temperature	8.9		10.7	10.1	9.1	
Physical Parameters	mg/L						
	Total Dissolved Solids						
	Total Suspended Solids						
Major Constituents - Commons Ions	mg/L						
	Alkalinity as CaCO3						
	Calcium (DIS)						
	Chloride						
	Fluoride						
	Hardness as CaCO3						
	Magnesium (DIS)						
	Potassium (DIS)						
	Sodium (DIS)						
	Sulfate						
Nutrients	mg/L						
	Nitrate + Nitrite as N						
	Phosphorus (TOT)						
	Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units						
	Aluminum (DIS)						
	Antimony (DIS)						
	Antimony (TRC)						
	Arsenic (DIS)						
	Arsenic (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	SEEP-2	SEEP-3	SEEP-4	SEEP-5	SEEP-6	SEEP-7
Water	Sample Date	9/24/2019	9/25/2019	9/25/2019	9/25/2019	9/25/2019	9/25/2019
	Sample Time	5:15:00 PM	2:55:00 PM	11:40:00 AM	12:05:00 PM	11:55:00 AM	12:30:00 PM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1909-133	BBC-1909-151	BBC-1909-142	BBC-1909-144	BBC-1909-143	BBC-1909-145
	Remarks						
Metals - Trace Constituents	Multiple Units						
Barium (DIS)							
Barium (TRC)							
Beryllium (DIS)							
Beryllium (TRC)							
Cadmium (DIS)							
Cadmium (TRC)							
Chromium (DIS)							
Chromium (TRC)							
Cobalt (DIS)							
Cobalt (TRC)							
Copper (DIS)							
Copper (TRC)							
Iron (DIS)							
Iron (TRC)							
Lead (DIS)							
Lead (TRC)							
Manganese (DIS)							
Manganese (TRC)							
Mercury (DIS)							
Mercury (TRC)							
Molybdenum (DIS)							
Molybdenum (TRC)							
Nickel (DIS)							
Nickel (TRC)							
Selenium (DIS)							
Selenium (TRC)							
Silver (DIS)							
Silver (TRC)							
Strontium (DIS)							
Strontium (TRC)							
Thallium (DIS)							
Thallium (TRC)							
Uranium (DIS)							

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Sample Type:	Station (Site)	SEEP-2	SEEP-3	SEEP-4	SEEP-5	SEEP-6	SEEP-7
Water	Sample Date	9/24/2019	9/25/2019	9/25/2019	9/25/2019	9/25/2019	9/25/2019
	Sample Time	5:15:00 PM	2:55:00 PM	11:40:00 AM	12:05:00 PM	11:55:00 AM	12:30:00 PM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1909-133	BBC-1909-151	BBC-1909-142	BBC-1909-144	BBC-1909-143	BBC-1909-145
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Uranium (TRC)						
	Zinc (DIS)						
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 11/6/2019 11:12:30 AM

Sample Type:	Station (Site)	SEEP-8	SEEP-9	SP-1	SP-10	SP-11	SP-12
Water	Sample Date	9/24/2019	9/24/2019	9/24/2019	9/24/2019	9/25/2019	9/25/2019
	Sample Time	6:00:00 PM	11:55:00 AM	5:35:00 PM	4:45:00 PM	1:00:00 PM	1:20:00 PM
	Lab	Hydro	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs
	Lab Number	z	z	z	H19090658-005	H19090658-008	H19090658-009
	Sample Number	BBC-1909-135	BBC-1909-118	BBC-1909-134	BBC-1909-132	BBC-1909-146	BBC-1909-147
	Remarks						

Field Parameters	Multiple Units					
Depth To Water						
Dissolved Oxygen		6.28	2.63	7.98	7.3	7.29
EH						
Field pH		7.53	7.66	8.13	7.23	7.17
Field Specific Conductivity		148	441	418	194	433
Flow						
Flow	NF-DRY	NM	NM	1.93	NM	NM
Staff Gauge						
Water Temperature		9.6	8.4	8.6	7.7	7.8
Physical Parameters	mg/L					
Total Dissolved Solids				235	120	255
Total Suspended Solids				12	<10	<10
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3				220	96	210
Calcium (DIS)				55	23	55
Chloride				<1	<1	9
Fluoride				0.1	0.1	0.2
Hardness as CaCO3				217	94	238
Magnesium (DIS)				20	9	24
Potassium (DIS)				1	1	1
Sodium (DIS)				2	4	2
Sulfate				15	7	20
Nutrients	mg/L					
Nitrate + Nitrite as N				0.24	0.24	0.24
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)				<0.009	0.045	<0.009
Antimony (DIS)				<0.0005	<0.0005	<0.0005
Antimony (TRC)						
Arsenic (DIS)				<0.001	0.006	<0.001
Arsenic (TRC)						

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Sample Type:	Station (Site)	SEEP-8	SEEP-9	SP-1	SP-10	SP-11	SP-12
Water	Sample Date	9/24/2019	9/24/2019	9/24/2019	9/24/2019	9/25/2019	9/25/2019
	Sample Time	6:00:00 PM	11:55:00 AM	5:35:00 PM	4:45:00 PM	1:00:00 PM	1:20:00 PM
	Lab	Hydro	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs
	Lab Number	z	z	z	H19090658-005	H19090658-008	H19090658-009
	Sample Number	BBC-1909-135	BBC-1909-118	BBC-1909-134	BBC-1909-132	BBC-1909-146	BBC-1909-147
	Remarks						
Metals - Trace Constituents	Multiple Units						
Barium (DIS)				0.055	0.307	0.184	
Barium (TRC)							
Beryllium (DIS)				<0.0008	<0.0008	<0.0008	
Beryllium (TRC)							
Cadmium (DIS)				<0.00003	<0.00003	<0.00003	
Cadmium (TRC)							
Chromium (DIS)				<0.01	<0.01	<0.01	
Chromium (TRC)							
Cobalt (DIS)				<0.01	<0.01	<0.01	
Cobalt (TRC)							
Copper (DIS)				<0.002	<0.002	<0.002	
Copper (TRC)							
Iron (DIS)				<0.02	<0.02	0.02	
Iron (TRC)							
Lead (DIS)				<0.0003	<0.0003	<0.0003	
Lead (TRC)							
Manganese (DIS)				<0.005	<0.005	<0.005	
Manganese (TRC)							
Mercury (DIS)				<0.005	<0.005	<0.005	
Mercury (TRC)							
Molybdenum (DIS)				<0.002	<0.002	<0.002	
Molybdenum (TRC)							
Nickel (DIS)				<0.001	<0.001	<0.001	
Nickel (TRC)							
Selenium (DIS)				0.0003	<0.0002	<0.0002	
Selenium (TRC)							
Silver (DIS)				<0.0002	<0.0002	<0.0002	
Silver (TRC)							
Strontium (DIS)				0.12	0.109	0.116	
Strontium (TRC)							
Thallium (DIS)				<0.0002	<0.0002	<0.0002	
Thallium (TRC)							
Uranium (DIS)				0.0008	0.0004	0.0006	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	SEEP-8	SEEP-9	SP-1	SP-10	SP-11	SP-12
Water	Sample Date	9/24/2019	9/24/2019	9/24/2019	9/24/2019	9/25/2019	9/25/2019
	Sample Time	6:00:00 PM	11:55:00 AM	5:35:00 PM	4:45:00 PM	1:00:00 PM	1:20:00 PM
	Lab	Hydro	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs
	Lab Number	z	z	z	H19090658-005	H19090658-008	H19090658-009
	Sample Number	BBC-1909-135	BBC-1909-118	BBC-1909-134	BBC-1909-132	BBC-1909-146	BBC-1909-147
	Remarks						
	Metals - Trace Constituents Multiple Units						
	Uranium (TRC)						
	Zinc (DIS)				<0.002	<0.002	<0.002
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 11/6/2019 11:12:30 AM

Sample Type:	Station (Site)	SP-12	SP-13	SP-2	SP-3	SP-4	SP-6
Water	Sample Date	9/25/2019	9/25/2019	9/24/2019	9/24/2019	9/24/2019	9/24/2019
	Sample Time	1:40:00 PM	2:15:00 PM	2:30:00 PM	1:35:00 PM	2:40:00 PM	2:15:00 PM
	Lab	Energy Labs	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19090658-010	z	z	H19090658-002	H19090658-004	H19090658-003
	Sample Number	BBC-1909-148	BBC-1909-150	BBC-1909-126	BBC-1909-123	BBC-1909-127	BBC-1909-125
	Remarks	DUPLICATE		DUPLICATE			

Field Parameters	Multiple Units					
Depth To Water						
Dissolved Oxygen	7.29	6.62		8.87	9.48	9.08
EH						
Field pH	7.17	7.33		7.2	7.72	7.6
Field Specific Conductivity	433	321		195	416	292
Flow						
Flow	NM	NM	NF-DRY	0.31	6.73	NM
Staff Gauge						
Water Temperature	7.8	7.4		9.4	7.3	8.2
Physical Parameters	mg/L					
Total Dissolved Solids	255			134	238	176
Total Suspended Solids	<10			<10	14	<10
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	210			93	200	150
Calcium (DIS)	54			27	47	36
Chloride	9			<1	<1	1
Fluoride	0.2			0.1	0.2	0.1
Hardness as CaCO3	234			90	216	144
Magnesium (DIS)	24			6	24	13
Potassium (DIS)	1			1	2	<1
Sodium (DIS)	2			3	2	2
Sulfate	20			6	31	10
Nutrients	mg/L					
Nitrate + Nitrite as N	0.24			0.22	0.29	0.43
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009			0.065	<0.009	<0.009
Antimony (DIS)	<0.0005			<0.0005	<0.0005	<0.0005
Antimony (TRC)						
Arsenic (DIS)	<0.001			0.001	<0.001	<0.001
Arsenic (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-12	SP-13	SP-2	SP-3	SP-4	SP-6
Water	Sample Date	9/25/2019	9/25/2019	9/24/2019	9/24/2019	9/24/2019	9/24/2019
	Sample Time	1:40:00 PM	2:15:00 PM	2:30:00 PM	1:35:00 PM	2:40:00 PM	2:15:00 PM
	Lab	Energy Labs	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19090658-010	z	z	H19090658-002	H19090658-004	H19090658-003
	Sample Number	BBC-1909-148	BBC-1909-150	BBC-1909-126	BBC-1909-123	BBC-1909-127	BBC-1909-125
	Remarks	DUPLICATE		DUPLICATE			

Metals - Trace Constituents	Multiple Units					
Barium (DIS)		0.184		0.315	0.115	0.214
Barium (TRC)						
Beryllium (DIS)		<0.0008		<0.0008	<0.0008	<0.0008
Beryllium (TRC)						
Cadmium (DIS)		<0.00003		<0.00003	<0.00003	<0.00003
Cadmium (TRC)						
Chromium (DIS)		<0.01		<0.01	<0.01	<0.01
Chromium (TRC)						
Cobalt (DIS)		<0.01		<0.01	<0.01	<0.01
Cobalt (TRC)						
Copper (DIS)		<0.002		<0.002	<0.002	<0.002
Copper (TRC)						
Iron (DIS)		0.02		0.03	<0.02	<0.02
Iron (TRC)						
Lead (DIS)		<0.0003		<0.0003	<0.0003	<0.0003
Lead (TRC)						
Manganese (DIS)		<0.005		<0.005	0.006	<0.005
Manganese (TRC)						
Mercury (DIS)		<0.005		<0.005	<0.005	<0.005
Mercury (TRC)						
Molybdenum (DIS)		<0.002		<0.002	<0.002	<0.002
Molybdenum (TRC)						
Nickel (DIS)		<0.001		<0.001	<0.001	<0.001
Nickel (TRC)						
Selenium (DIS)		<0.0002		<0.0002	0.0004	0.0002
Selenium (TRC)						
Silver (DIS)		<0.0002		<0.0002	<0.0002	<0.0002
Silver (TRC)						
Strontium (DIS)		0.115		0.0851	0.0738	0.0818
Strontium (TRC)						
Thallium (DIS)		<0.0002		<0.0002	0.0003	0.0006
Thallium (TRC)						
Uranium (DIS)		0.0006		<0.0002	0.0005	0.0005

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-12	SP-13	SP-2	SP-3	SP-4	SP-6
Water	Sample Date	9/25/2019	9/25/2019	9/24/2019	9/24/2019	9/24/2019	9/24/2019
	Sample Time	1:40:00 PM	2:15:00 PM	2:30:00 PM	1:35:00 PM	2:40:00 PM	2:15:00 PM
	Lab	Energy Labs	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19090658-010	z	z	H19090658-002	H19090658-004	H19090658-003
	Sample Number	BBC-1909-148	BBC-1909-150	BBC-1909-126	BBC-1909-123	BBC-1909-127	BBC-1909-125
	Remarks	DUPLICATE		DUPLICATE			
Metals - Trace Constituents	Multiple Units						
	Uranium (TRC)						
	Zinc (DIS)	<0.002			<0.002	<0.002	<0.002
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 11/6/2019 11:12:30 AM

Sample Type:	Station (Site)	SP-7	SP-8	SP-9	SW-1	SW-10	SW-11
Water	Sample Date	9/25/2019	9/25/2019	9/25/2019	9/23/2019	9/24/2019	9/24/2019
	Sample Time	2:00:00 PM	8:20:00 AM	8:35:00 AM	3:00:00 PM	9:55:00 AM	8:15:00 AM
	Lab	Energy Labs	Hydro	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	H19090658-011	z	z	H19090608-002	z	H19090658-013
	Sample Number	BBC-1909-149	BBC-1909-136	BBC-1909-137	BBC-1909-101	BBC-1909-113	BBC-1909-111
	Remarks						
Field Parameters	Multiple Units						
Depth To Water							
Dissolved Oxygen		2.92	6.21	7.12	9.59	9.34	9.41
EH							
Field pH		7.26	7.04	7.61	8.64	8.32	8.42
Field Specific Conductivity		336	386	371	309	425	424
Flow					30.28	0.4	0.93
Flow		15.26	6.73	5.39			
Staff Gauge					0.98	0.87	0.35
Water Temperature		7.4	7.4	6.1	11.8	7.1	8.1
Physical Parameters	mg/L						
Total Dissolved Solids		192			191 D		243 D
Total Suspended Solids		<10			5		7
Major Constituents - Commons Ions	mg/L						
Alkalinity as CaCO3		170			170		220
Calcium (DIS)		43			44		53
Chloride		2			1		1
Fluoride		0.3			0.1		0.2
Hardness as CaCO3		168			160		228
Magnesium (DIS)		15			12		23
Potassium (DIS)		3			2		1
Sodium (DIS)		5			2		3
Sulfate		10			6		22
Nutrients	mg/L						
Nitrate + Nitrite as N		0.34			<0.01		0.08
Phosphorus (TOT)					0.014		0.012
Total Nitrogen as N (Persulfate)					0.12		0.16
Metals - Trace Constituents	Multiple Units						
Aluminum (DIS)		<0.009			<0.009		<0.009
Antimony (DIS)		<0.0005					
Antimony (TRC)					<0.0005		<0.0005
Arsenic (DIS)		0.004					
Arsenic (TRC)					<0.001		<0.001

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	SP-7	SP-8	SP-9	SW-1	SW-10	SW-11
Water	Sample Date	9/25/2019	9/25/2019	9/25/2019	9/23/2019	9/24/2019	9/24/2019
	Sample Time	2:00:00 PM	8:20:00 AM	8:35:00 AM	3:00:00 PM	9:55:00 AM	8:15:00 AM
	Lab	Energy Labs	Hydro	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	H19090658-011	z	z	H19090608-002	z	H19090658-013
	Sample Number	BBC-1909-149	BBC-1909-136	BBC-1909-137	BBC-1909-101	BBC-1909-113	BBC-1909-111
	Remarks						
Metals - Trace Constituents	Multiple Units						
Barium (DIS)		0.116					
Barium (TRC)					0.116		0.11
Beryllium (DIS)		<0.0008					
Beryllium (TRC)					<0.0008		<0.0008
Cadmium (DIS)		<0.00003					
Cadmium (TRC)					<0.00003		<0.00003
Chromium (DIS)		<0.01					
Chromium (TRC)					<0.01		<0.01
Cobalt (DIS)		<0.01					
Cobalt (TRC)					<0.01		<0.01
Copper (DIS)		<0.002					
Copper (TRC)					<0.002		<0.002
Iron (DIS)		<0.02					
Iron (TRC)					0.22		0.16
Lead (DIS)		<0.0003					
Lead (TRC)					<0.0003		<0.0003
Manganese (DIS)		<0.005					
Manganese (TRC)					0.021		0.01
Mercury (DIS)		<0.005					
Mercury (TRC)					0.008		<0.005
Molybdenum (DIS)		<0.002					
Molybdenum (TRC)					<0.002		<0.002
Nickel (DIS)		<0.001					
Nickel (TRC)					<0.001		<0.001
Selenium (DIS)		0.0003					
Selenium (TRC)					<0.0002		<0.0002
Silver (DIS)		<0.0002					
Silver (TRC)					<0.0002		<0.0002
Strontium (DIS)		0.174					
Strontium (TRC)					0.125		0.186
Thallium (DIS)		0.0011					
Thallium (TRC)					<0.0002		<0.0002
Uranium (DIS)		0.0009					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	SP-7	SP-8	SP-9	SW-1	SW-10	SW-11
Water	Sample Date	9/25/2019	9/25/2019	9/25/2019	9/23/2019	9/24/2019	9/24/2019
	Sample Time	2:00:00 PM	8:20:00 AM	8:35:00 AM	3:00:00 PM	9:55:00 AM	8:15:00 AM
	Lab	Energy Labs	Hydro	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	H19090658-011	z	z	H19090608-002	z	H19090658-013
	Sample Number	BBC-1909-149	BBC-1909-136	BBC-1909-137	BBC-1909-101	BBC-1909-113	BBC-1909-111
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Uranium (TRC)				0.0004		0.0009
	Zinc (DIS)	<0.002					
	Zinc (TRC)				<0.004		<0.005

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 11/6/2019 11:12:30 AM

Sample Type:	Station (Site)	SW-14	SW-17	SW-18	SW-19	SW-2	SW-3
Water	Sample Date	9/23/2019	9/23/2019	9/23/2019	9/24/2019	9/23/2019	9/23/2019
	Sample Time	4:45:00 PM	5:45:00 PM	5:20:00 PM	10:10:00 AM	3:40:00 PM	5:30:00 PM
	Lab	Energy Labs	Energy Labs	Hydro	Hydro	Energy Labs	Energy Labs
	Lab Number	H19090608-005	H19090608-009	z	z	H19090608-003	H19090608-008
	Sample Number	BBC-1909-104	BBC-1909-109	BBC-1909-107	BBC-1909-114	BBC-1909-102	BBC-1909-108
	Remarks						

Field Parameters	Multiple Units					
Depth To Water						
Dissolved Oxygen	10.15	9.4		9.55	9.86	9.09
EH						
Field pH	8.38	8.35		8.32	8.62	8.43
Field Specific Conductivity	402	450		404	309	417
Flow	1.17	0.24	NF-DRY	0.14	24.32	0.069
Flow						
Staff Gauge	0.59			0.14	0.4	0.17
Water Temperature	13.3	10.5		7.1	9.9	9.6
Physical Parameters	mg/L					
Total Dissolved Solids	239 D	274 D			187 D	255 D
Total Suspended Solids	5	<4			<4	<4
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	220	220			170	210
Calcium (DIS)	52	52			44	49
Chloride	2	6			1	4
Fluoride	0.2	0.2			<0.1	0.2
Hardness as CaCO3	207	226			158	224
Magnesium (DIS)	19	23			11	24
Potassium (DIS)	1	1			1	1
Sodium (DIS)	2	3			2	2
Sulfate	7	23			5	19
Nutrients	mg/L					
Nitrate + Nitrite as N	0.01	0.04			<0.01	0.03
Phosphorus (TOT)	0.009	0.007			0.006	0.007
Total Nitrogen as N (Persulfate)	0.13	0.14			0.07	0.09
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009	<0.009			<0.009	<0.009
Antimony (DIS)						
Antimony (TRC)	<0.0005	<0.0005			<0.0005	<0.0005
Arsenic (DIS)						
Arsenic (TRC)	<0.001	<0.001			<0.001	<0.001

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	SW-14	SW-17	SW-18	SW-19	SW-2	SW-3
Water	Sample Date	9/23/2019	9/23/2019	9/23/2019	9/24/2019	9/23/2019	9/23/2019
	Sample Time	4:45:00 PM	5:45:00 PM	5:20:00 PM	10:10:00 AM	3:40:00 PM	5:30:00 PM
	Lab	Energy Labs	Energy Labs	Hydro	Hydro	Energy Labs	Energy Labs
	Lab Number	H19090608-005	H19090608-009	z	z	H19090608-003	H19090608-008
	Sample Number	BBC-1909-104	BBC-1909-109	BBC-1909-107	BBC-1909-114	BBC-1909-102	BBC-1909-108
	Remarks						

Metals - Trace Constituents	Multiple Units					
Barium (DIS)						
Barium (TRC)	0.121	0.174		0.102	0.171	
Beryllium (DIS)						
Beryllium (TRC)	<0.0008	<0.0008		<0.0008	<0.0008	
Cadmium (DIS)						
Cadmium (TRC)	<0.00003	<0.00003		<0.00003	<0.00003	
Chromium (DIS)						
Chromium (TRC)	<0.01	<0.01		<0.01	<0.01	
Cobalt (DIS)						
Cobalt (TRC)	<0.01	<0.01		<0.01	<0.01	
Copper (DIS)						
Copper (TRC)	<0.002	<0.002		<0.002	<0.002	
Iron (DIS)						
Iron (TRC)	0.11	0.17		0.12	0.05	
Lead (DIS)						
Lead (TRC)	<0.0003	<0.0003		<0.0003	<0.0003	
Manganese (DIS)						
Manganese (TRC)	0.006	0.016		0.008	<0.005	
Mercury (DIS)						
Mercury (TRC)	0.006	0.006		<0.005	<0.005	
Molybdenum (DIS)						
Molybdenum (TRC)	<0.002	<0.002		<0.002	<0.002	
Nickel (DIS)						
Nickel (TRC)	0.001	<0.001		<0.001	<0.001	
Selenium (DIS)						
Selenium (TRC)	<0.0002	<0.0002		<0.0002	<0.0002	
Silver (DIS)						
Silver (TRC)	<0.0002	<0.0002		<0.0002	<0.0002	
Strontium (DIS)						
Strontium (TRC)	0.127	0.154		0.132	0.126	
Thallium (DIS)						
Thallium (TRC)	<0.0002	<0.0002		<0.0002	<0.0002	
Uranium (DIS)						

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Sample Type:	Station (Site)	SW-14	SW-17	SW-18	SW-19	SW-2	SW-3
Water	Sample Date	9/23/2019	9/23/2019	9/23/2019	9/24/2019	9/23/2019	9/23/2019
	Sample Time	4:45:00 PM	5:45:00 PM	5:20:00 PM	10:10:00 AM	3:40:00 PM	5:30:00 PM
	Lab	Energy Labs	Energy Labs	Hydro	Hydro	Energy Labs	Energy Labs
	Lab Number	H19090608-005	H19090608-009	z	z	H19090608-003	H19090608-008
	Sample Number	BBC-1909-104	BBC-1909-109	BBC-1909-107	BBC-1909-114	BBC-1909-102	BBC-1909-108
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Uranium (TRC)	0.0005	0.0006			0.0003	0.0006
	Zinc (DIS)						
	Zinc (TRC)	<0.004	<0.004			<0.004	<0.004

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-4	SW-4	SW-5	SW-6	SW-7	SW-8
Water	Sample Date	9/23/2019	9/23/2019	9/24/2019	9/23/2019	9/25/2019	9/24/2019
	Sample Time	5:00:00 PM	5:15:00 PM	11:15:00 AM	2:00:00 PM	10:45:00 AM	7:45:00 AM
	Lab	Energy Labs	Energy Labs	Hydro	Energy Labs	Energy Labs	Hydro
	Lab Number	H19090608-006	H19090608-007	z	H19090608-001	H19090658-007	z
	Sample Number	BBC-1909-105	BBC-1909-106	BBC-1909-116	BBC-1909-100	BBC-1909-141	BBC-1909-110
	Remarks		DUPLICATE				

Field Parameters	Multiple Units					
Depth To Water						
Dissolved Oxygen	8.62			8.94	7.85	9.09
EH						
Field pH	8.23			8.35	7.82	8.22
Field Specific Conductivity	375			406	377	418
Flow	0.009		NF-DRY	0.14		0.68
Flow					0.18	
Staff Gauge						0.03
Water Temperature	10.5			10.4	10.2	7.1
Physical Parameters	mg/L					
Total Dissolved Solids	218 D	222 D		238 D	239	
Total Suspended Solids	<4	<4		23	21	
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	200	200		220	230	
Calcium (DIS)	44	45		48	61	
Chloride	<1	<1		<1	<1	
Fluoride	0.1	0.1		0.2	<0.1	
Hardness as CaCO3	189	192		208	231	
Magnesium (DIS)	19	19		21	19	
Potassium (DIS)	2	2		1	<1	
Sodium (DIS)	3	2		3	2	
Sulfate	8	8		11	8	
Nutrients	mg/L					
Nitrate + Nitrite as N	0.02	0.02		0.02	<0.01	
Phosphorus (TOT)	0.006	0.008		0.016		
Total Nitrogen as N (Persulfate)	0.1	0.12		0.16		
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009	<0.009		<0.009	<0.009	
Antimony (DIS)					<0.0005	
Antimony (TRC)	<0.0005	<0.0005		<0.0005		
Arsenic (DIS)					<0.001	
Arsenic (TRC)	<0.001	<0.001		<0.001		

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-4	SW-4	SW-5	SW-6	SW-7	SW-8
Water	Sample Date	9/23/2019	9/23/2019	9/24/2019	9/23/2019	9/25/2019	9/24/2019
	Sample Time	5:00:00 PM	5:15:00 PM	11:15:00 AM	2:00:00 PM	10:45:00 AM	7:45:00 AM
	Lab	Energy Labs	Energy Labs	Hydro	Energy Labs	Energy Labs	Hydro
	Lab Number	H19090608-006	H19090608-007	z	H19090608-001	H19090658-007	z
	Sample Number	BBC-1909-105	BBC-1909-106	BBC-1909-116	BBC-1909-100	BBC-1909-141	BBC-1909-110
	Remarks		DUPLICATE				

Metals - Trace Constituents	Multiple Units					
Barium (DIS)					0.068	
Barium (TRC)	0.151	0.157		0.134		
Beryllium (DIS)					<0.0008	
Beryllium (TRC)	<0.0008	<0.0008		<0.0008		
Cadmium (DIS)					<0.00003	
Cadmium (TRC)	<0.00003	<0.00003		<0.00003		
Chromium (DIS)					<0.01	
Chromium (TRC)	<0.01	<0.01		<0.01		
Cobalt (DIS)					<0.01	
Cobalt (TRC)	<0.01	<0.01		<0.01		
Copper (DIS)					<0.002	
Copper (TRC)	<0.002	<0.002		<0.002		
Iron (DIS)					<0.02	
Iron (TRC)	0.09	0.1		0.35		
Lead (DIS)					<0.0003	
Lead (TRC)	<0.0003	<0.0003		<0.0003		
Manganese (DIS)					0.013	
Manganese (TRC)	0.01	0.011		0.017		
Mercury (DIS)					<0.005	
Mercury (TRC)	0.006	0.006		0.007		
Molybdenum (DIS)					<0.002	
Molybdenum (TRC)	<0.002	<0.002		<0.002		
Nickel (DIS)					<0.001	
Nickel (TRC)	<0.001	<0.001		<0.001		
Selenium (DIS)					<0.0002	
Selenium (TRC)	<0.0002	<0.0002		<0.0002		
Silver (DIS)					<0.0002	
Silver (TRC)	<0.0002	<0.0002		<0.0002		
Strontium (DIS)					0.147	
Strontium (TRC)	0.186	0.191		0.175		
Thallium (DIS)					<0.0002	
Thallium (TRC)	<0.0002	<0.0002		<0.0002		
Uranium (DIS)					0.0006	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	SW-4	SW-4	SW-5	SW-6	SW-7	SW-8
Water	Sample Date	9/23/2019	9/23/2019	9/24/2019	9/23/2019	9/25/2019	9/24/2019
	Sample Time	5:00:00 PM	5:15:00 PM	11:15:00 AM	2:00:00 PM	10:45:00 AM	7:45:00 AM
	Lab	Energy Labs	Energy Labs	Hydro	Energy Labs	Energy Labs	Hydro
	Lab Number	H19090608-006	H19090608-007	z	H19090608-001	H19090658-007	z
	Sample Number	BBC-1909-105	BBC-1909-106	BBC-1909-116	BBC-1909-100	BBC-1909-141	BBC-1909-110
	Remarks		DUPLICATE				
Metals - Trace Constituents	Multiple Units						
	Uranium (TRC)	0.0008	0.0008		0.0006		
	Zinc (DIS)					<0.002	
	Zinc (TRC)	<0.004	<0.005		<0.004		

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-9	USGS-SC1	USGS-SC1	WM1	WM2	WM3
Water	Sample Date	9/24/2019	9/23/2019	9/23/2019	9/18/2019	9/18/2019	9/18/2019
	Sample Time	9:30:00 AM	4:15:00 PM	4:15:00 PM	3:10:00 PM	3:18:00 PM	3:48:00 PM
	Lab	Hydro	Energy Labs	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	z	H19090608-004	H19090608-004	z	z	z
	Sample Number	BBC-1909-112	BBC-1909-103	BBC-1909-103	BBC-1909-62	BBC-1909-63	BBC-1909-64
	Remarks						

Field Parameters	Multiple Units					
Depth To Water				4.38	4.09	8.35
Dissolved Oxygen	9.26	9.8				
EH						
Field pH	8.3	8.55				
Field Specific Conductivity	434	350				
Flow	0.59	18.16				
Flow						
Staff Gauge						
Water Temperature	7.2	8.9				
Physical Parameters	mg/L					
Total Dissolved Solids		206 D				
Total Suspended Solids		<4				
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3		190				
Calcium (DIS)		50				
Chloride		1				
Fluoride		<0.1				
Hardness as CaCO3		178				
Magnesium (DIS)		13				
Potassium (DIS)		1				
Sodium (DIS)		2				
Sulfate		5				
Nutrients	mg/L					
Nitrate + Nitrite as N		<0.01				
Phosphorus (TOT)		<0.003				
Total Nitrogen as N (Persulfate)		0.05				
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)		<0.009				
Antimony (DIS)						
Antimony (TRC)		<0.0005				
Arsenic (DIS)						
Arsenic (TRC)		<0.001				

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-9	USGS-SC1	USGS-SC1	WM1	WM2	WM3
Water	Sample Date	9/24/2019	9/23/2019	9/23/2019	9/18/2019	9/18/2019	9/18/2019
	Sample Time	9:30:00 AM	4:15:00 PM	4:15:00 PM	3:10:00 PM	3:18:00 PM	3:48:00 PM
	Lab	Hydro	Energy Labs	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	z	H19090608-004	H19090608-004	z	z	z
	Sample Number	BBC-1909-112	BBC-1909-103	BBC-1909-103	BBC-1909-62	BBC-1909-63	BBC-1909-64
	Remarks						
Metals - Trace Constituents	Multiple Units						
Barium (DIS)							
Barium (TRC)			0.074				
Beryllium (DIS)							
Beryllium (TRC)			<0.0008				
Cadmium (DIS)							
Cadmium (TRC)			<0.00003				
Chromium (DIS)							
Chromium (TRC)			<0.01				
Cobalt (DIS)							
Cobalt (TRC)			<0.01				
Copper (DIS)							
Copper (TRC)			<0.002				
Iron (DIS)							
Iron (TRC)			0.11				
Lead (DIS)							
Lead (TRC)			<0.0003				
Manganese (DIS)							
Manganese (TRC)			0.007				
Mercury (DIS)							
Mercury (TRC)				<0.005			
Molybdenum (DIS)							
Molybdenum (TRC)			<0.002				
Nickel (DIS)							
Nickel (TRC)			<0.001				
Selenium (DIS)							
Selenium (TRC)			<0.0002				
Silver (DIS)							
Silver (TRC)			<0.0002				
Strontium (DIS)							
Strontium (TRC)			0.154				
Thallium (DIS)							
Thallium (TRC)			<0.0002				
Uranium (DIS)							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-9	USGS-SC1	USGS-SC1	WM1	WM2	WM3
Water	Sample Date	9/24/2019	9/23/2019	9/23/2019	9/18/2019	9/18/2019	9/18/2019
	Sample Time	9:30:00 AM	4:15:00 PM	4:15:00 PM	3:10:00 PM	3:18:00 PM	3:48:00 PM
	Lab	Hydro	Energy Labs	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	z	H19090608-004	H19090608-004	z	z	z
	Sample Number	BBC-1909-112	BBC-1909-103	BBC-1909-103	BBC-1909-62	BBC-1909-63	BBC-1909-64
	Remarks						

Metals - Trace Constituents	Multiple Units
Uranium (TRC)	0.0004
Zinc (DIS)	
Zinc (TRC)	<0.004

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	WM4	WM5	WM6	WM7	WM8	WMR1
Water	Sample Date	9/18/2019	9/17/2019	9/17/2019	9/17/2019	9/17/2019	9/17/2019
	Sample Time	3:55:00 PM	2:45:00 PM	2:53:00 PM	5:28:00 PM	3:05:00 PM	10:12:00 AM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1909-65	BBC-1909-66	BBC-1909-67	BBC-1909-68	BBC-1909-69	BBC-1909-54
	Remarks						

Field Parameters	Multiple Units					
Depth To Water	3.72	8.53	5.87	4.32	4.76	2.49
Dissolved Oxygen						
EH						
Field pH						
Field Specific Conductivity						
Flow						
Flow						
Staff Gauge						
Water Temperature						
Physical Parameters	mg/L					
Total Dissolved Solids						
Total Suspended Solids						
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3						
Calcium (DIS)						
Chloride						
Fluoride						
Hardness as CaCO3						
Magnesium (DIS)						
Potassium (DIS)						
Sodium (DIS)						
Sulfate						
Nutrients	mg/L					
Nitrate + Nitrite as N						
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)						
Antimony (DIS)						
Antimony (TRC)						
Arsenic (DIS)						
Arsenic (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	WM4	WM5	WM6	WM7	WM8	WMR1
Water	Sample Date	9/18/2019	9/17/2019	9/17/2019	9/17/2019	9/17/2019	9/17/2019
	Sample Time	3:55:00 PM	2:45:00 PM	2:53:00 PM	5:28:00 PM	3:05:00 PM	10:12:00 AM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1909-65	BBC-1909-66	BBC-1909-67	BBC-1909-68	BBC-1909-69	BBC-1909-54
	Remarks						

Metals - Trace Constituents Multiple Units	
Barium (DIS)	
Barium (TRC)	
Beryllium (DIS)	
Beryllium (TRC)	
Cadmium (DIS)	
Cadmium (TRC)	
Chromium (DIS)	
Chromium (TRC)	
Cobalt (DIS)	
Cobalt (TRC)	
Copper (DIS)	
Copper (TRC)	
Iron (DIS)	
Iron (TRC)	
Lead (DIS)	
Lead (TRC)	
Manganese (DIS)	
Manganese (TRC)	
Mercury (DIS)	
Mercury (TRC)	
Molybdenum (DIS)	
Molybdenum (TRC)	
Nickel (DIS)	
Nickel (TRC)	
Selenium (DIS)	
Selenium (TRC)	
Silver (DIS)	
Silver (TRC)	
Strontium (DIS)	
Strontium (TRC)	
Thallium (DIS)	
Thallium (TRC)	
Uranium (DIS)	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	WM4	WM5	WM6	WM7	WM8	WMR1
Water	Sample Date	9/18/2019	9/17/2019	9/17/2019	9/17/2019	9/17/2019	9/17/2019
	Sample Time	3:55:00 PM	2:45:00 PM	2:53:00 PM	5:28:00 PM	3:05:00 PM	10:12:00 AM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1909-65	BBC-1909-66	BBC-1909-67	BBC-1909-68	BBC-1909-69	BBC-1909-54
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Uranium (TRC)						
	Zinc (DIS)						
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	WMR2	WMR3	WMR4	WMR5	WMR6	WMR7
Water	Sample Date	9/17/2019	9/17/2019	9/17/2019	9/17/2019	9/17/2019	9/17/2019
	Sample Time	10:05:00 AM	10:35:00 AM	10:27:00 AM	11:38:00 AM	11:46:00 AM	11:24:00 AM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1909-55	BBC-1909-56	BBC-1909-57	BBC-1909-58	BBC-1909-59	BBC-1909-60
	Remarks						
Field Parameters	Multiple Units						
	Depth To Water	4.98	4.81	5.95	9.57	3.4	0.89
	Dissolved Oxygen						
	EH						
	Field pH						
	Field Specific Conductivity						
	Flow						
	Flow						
	Staff Gauge						
	Water Temperature						
Physical Parameters	mg/L						
	Total Dissolved Solids						
	Total Suspended Solids						
Major Constituents - Commons Ions	mg/L						
	Alkalinity as CaCO3						
	Calcium (DIS)						
	Chloride						
	Fluoride						
	Hardness as CaCO3						
	Magnesium (DIS)						
	Potassium (DIS)						
	Sodium (DIS)						
	Sulfate						
Nutrients	mg/L						
	Nitrate + Nitrite as N						
	Phosphorus (TOT)						
	Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units						
	Aluminum (DIS)						
	Antimony (DIS)						
	Antimony (TRC)						
	Arsenic (DIS)						
	Arsenic (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	WMR2	WMR3	WMR4	WMR5	WMR6	WMR7
Water	Sample Date	9/17/2019	9/17/2019	9/17/2019	9/17/2019	9/17/2019	9/17/2019
	Sample Time	10:05:00 AM	10:35:00 AM	10:27:00 AM	11:38:00 AM	11:46:00 AM	11:24:00 AM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1909-55	BBC-1909-56	BBC-1909-57	BBC-1909-58	BBC-1909-59	BBC-1909-60
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Barium (DIS)						
	Barium (TRC)						
	Beryllium (DIS)						
	Beryllium (TRC)						
	Cadmium (DIS)						
	Cadmium (TRC)						
	Chromium (DIS)						
	Chromium (TRC)						
	Cobalt (DIS)						
	Cobalt (TRC)						
	Copper (DIS)						
	Copper (TRC)						
	Iron (DIS)						
	Iron (TRC)						
	Lead (DIS)						
	Lead (TRC)						
	Manganese (DIS)						
	Manganese (TRC)						
	Mercury (DIS)						
	Mercury (TRC)						
	Molybdenum (DIS)						
	Molybdenum (TRC)						
	Nickel (DIS)						
	Nickel (TRC)						
	Selenium (DIS)						
	Selenium (TRC)						
	Silver (DIS)						
	Silver (TRC)						
	Strontium (DIS)						
	Strontium (TRC)						
	Thallium (DIS)						
	Thallium (TRC)						
	Uranium (DIS)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	WMR2	WMR3	WMR4	WMR5	WMR6	WMR7
Water	Sample Date	9/17/2019	9/17/2019	9/17/2019	9/17/2019	9/17/2019	9/17/2019
	Sample Time	10:05:00 AM	10:35:00 AM	10:27:00 AM	11:38:00 AM	11:46:00 AM	11:24:00 AM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1909-55	BBC-1909-56	BBC-1909-57	BBC-1909-58	BBC-1909-59	BBC-1909-60
	Remarks						
	Metals - Trace Constituents Multiple Units						
	Uranium (TRC)						
	Zinc (DIS)						
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	WMR8
Water	Sample Date	9/17/2019
	Sample Time	11:19:00 AM
	Lab	Hydro
	Lab Number	z
	Sample Number	BBC-1909-61
	Remarks	

Field Parameters	Multiple Units
Depth To Water	3.34
Dissolved Oxygen	
EH	
Field pH	
Field Specific Conductivity	
Flow	
Flow	
Staff Gauge	
Water Temperature	
Physical Parameters	mg/L
Total Dissolved Solids	
Total Suspended Solids	
Major Constituents - Commons Ions	mg/L
Alkalinity as CaCO3	
Calcium (DIS)	
Chloride	
Fluoride	
Hardness as CaCO3	
Magnesium (DIS)	
Potassium (DIS)	
Sodium (DIS)	
Sulfate	
Nutrients	mg/L
Nitrate + Nitrite as N	
Phosphorus (TOT)	
Total Nitrogen as N (Persulfate)	
Metals - Trace Constituents	Multiple Units
Aluminum (DIS)	
Antimony (DIS)	
Antimony (TRC)	
Arsenic (DIS)	
Arsenic (TRC)	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	WMR8
Water	Sample Date	9/17/2019
	Sample Time	11:19:00 AM
	Lab	Hydro
	Lab Number	z
	Sample Number	BBC-1909-61
	Remarks	

Metals - Trace Constituents	Multiple Units
Barium (DIS)	
Barium (TRC)	
Beryllium (DIS)	
Beryllium (TRC)	
Cadmium (DIS)	
Cadmium (TRC)	
Chromium (DIS)	
Chromium (TRC)	
Cobalt (DIS)	
Cobalt (TRC)	
Copper (DIS)	
Copper (TRC)	
Iron (DIS)	
Iron (TRC)	
Lead (DIS)	
Lead (TRC)	
Manganese (DIS)	
Manganese (TRC)	
Mercury (DIS)	
Mercury (TRC)	
Molybdenum (DIS)	
Molybdenum (TRC)	
Nickel (DIS)	
Nickel (TRC)	
Selenium (DIS)	
Selenium (TRC)	
Silver (DIS)	
Silver (TRC)	
Strontium (DIS)	
Strontium (TRC)	
Thallium (DIS)	
Thallium (TRC)	
Uranium (DIS)	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	WMR8
Water	Sample Date	9/17/2019
	Sample Time	11:19:00 AM
	Lab	Hydro
	Lab Number	z
	Sample Number	BBC-1909-61
	Remarks	

Metals - Trace Constituents	Multiple Units
Uranium (TRC)	
Zinc (DIS)	
Zinc (TRC)	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

QUALITY CONTROL / QUALITY ASSURANCE
DATA VERIFICATION REPORT

BLACK BUTTE COPPER
WATER RESOURCE MONITORING

OCTOBER 2019

Prepared by
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NOVEMBER 2019

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GLOSSARY OF TERMS

CCB ..... Continuing Calibration Blank

CCV ..... Continuing Calibration Verification

CLP ..... Contract Laboratory Program

CRDL..... Contract Required Detection Limit

DIé é é é é Deionized Water

FAA ..... Flame Atomic Absorption

GFAA..... Graphite Furnace Atomic Absorption

HGAA ..... Hydride Generation Atomic Absorption

ICB..... Initial Calibration Blank

ICP ..... Inductively Coupled Plasma

ICV ..... Initial Calibration Verification

IDL..... Instrument Detection Limit

LCS ..... Laboratory Control Sample

MSA..... Method of Standard Additions

PB ..... Preparation Blank

PRDL ..... Project Required Detection Limit

QAPP ..... Quality Assurance Project Plan

QC..... Quality Control

RPD..... Relative Percent Difference

RSD..... Relative Standard Deviation

SOW..... Statement of Work

TDS..... Total Dissolved Solids

DATA VALIDATION REPORT

1. INTRODUCTION

This validation applies to 31 samples collected for the Black Butte Tintina surface water and groundwater monitoring program. All sampling occurred in October 2019. All samples were submitted to Energy Laboratories in Helena, Montana and were assigned Laboratory IDs: H19100567 and H19100566. The total number of samples included: 18 groundwater and surface water samples including 2 field duplicates, and 2 field deionized (DI and Rinsate) blanks and 9 field site observations.

- Validation procedures used are generally consistent with:
  (Check all that apply)
  _X_ EPA CLP National Functional Guidelines for Inorganics Data Review
  _X_ EPA CLP National Functional Guidelines for Organic Data Review
  _X__ Montana Department of Environmental Quality, Data Validation Guidelines for Evaluating Analytical Data, Hydrometrics, September 2010

2. DELIVERABLES

- All laboratory document deliverables were present as specified in the CLP-Statement of Work and/or the project contract
  _X_ Yes
  ___No

- All documentation of field procedures was provided as required
  _X_ Yes
  ___No

3. FIELD QUALITY CONTROL SAMPLES

- Field blanks

  Please note that the highest blank value associated with any particular analyte is the blank value used for the flagging process.

  DI, trip, rinsate, or any other field blanks have been carried out at the proper frequency
  _X_ Yes
  ___No

  Reported results on the field blanks are less than the contract required detection limits (CRDL) or the project required detection limits (PRDL) if project detection limits have been specified
  ____Yes
  _X_ No ï see following table

Date	Parameter	Sample Result (mg/L)	Reporting Limit (mg/L)	Number of Flags
10/24/19	Hardness	2	<1	0
	Iron (TRC)	0.02	<0.02	1
	Strontium (TRC)	0.0004	<0.0002	0

B ï Field Blank exceeded QA/QC comparison control limits.

  Field duplicates have been collected at the proper frequency
  _X_ Yes
  ___No

  Field duplicate relative percent differences (RPDs) were within the required control limits (25 percent or less for water matrix and 50 percent or less for soil matrix)

___Yes
_X_ No ï see following table

Date	Site Code	Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	% RPD	Number of Flags
10/24/19	SP-10	Total Suspended Solids	300	240	22	18

J ï Duplicate exceeded QA/QC comparison control limits.

4. LABORATORY PROCEDURES

- Laboratory Case Narrative Notes any non conformance issues with the analytical data
  ___Yes
  ___No
  _X_NA

- Samples were received by the laboratory at the proper temperature
  _X_Yes
  ___No

- Holding times met
  _X_Yes
  ___No

- Consistency with project requirements
  _X_Yes
  ___No

- Sample Conditions met at Check-in
  _X_Yes
  ___No

- Reporting units appropriate for the associated sample matrix and methods of analysis
  _X_Yes
  ___No

- Project specified methods were used
  _X_Yesï see following list of methods used
  ___No

  NOTES: It should be noted that parameters were analyzed using different methods than requested; however, all methods used by the laboratory are comparable. The following methods were used during analyses: A2540D, A2540C, A2320B, E300.0, A4500-F C, A2340B, E353.2, A4500-N C, E365.1, E200.8, and E200.7.

- Detection Limits met project required detection limits (PRDL)
  _X_Yesï see following notes
  ___No

  NOTES: It should be noted that total dissolved solids had a reporting limit increases due to sample matrix interference (D). TDS had a limit of 10 mg/l used not the requested 4 mg/l. Zinc had a varying reporting limit as high as 0.004 mg/L not the requested 0.002 mg/L. In addition, a reporting limit of 0.01 mg/l was used for nitrate + nitrite as n as replacement of the 0.003 mg/l requested. Finally, zinc values were flagged with an L to indicate that the lowest available reporting limit was used per method used for analysis.

5. INITIAL OR CONTINUING CALIBRATION VERIFICATION RESULTS

- Initial or Continuing Calibration Verification samples were within acceptable limits
  _X_ Yes
  ___ No

6. LABORATORY BLANKS

- **PREPARATION/METHOD BLANKS**

  Preparation/Method blanks were prepared and analyzed at the required frequency
  _X_ Yes
  ___ No

  All analytes in the preparation blank were less than the CRDL (or PRDL if a project detection limit has been specified)
  _X_ Yes
  ___ No

7. MATRIX SPIKE /MATRIX SPIKE DUPLICATES (MS/MSD)

- Matrix spike samples were analyzed at the proper frequency
  _X_ Yes
  ___ No

- Matrix spike recoveries were within control limits
  ___ Yes
  _X_ No ï see following table

QC Sample ID	Parameter	% REC	Lab Flag	Lab Advisory Limits (% REC)
H19100551-006CMS	Total Phosphorus	112	S	90-110

S ï Spike recovery outside of recovery limits

- Matrix spike RPDôs were within control limits
  _X_ Yes
  ___ No

- Matrix spike duplicate samples were analyzed at the proper frequency
  _X_ Yes
  ___ No

- Matrix spike duplicate RPDôs were within control limits
  _X_ Yes
  ___ No

- Matrix spike duplicate recoveries were within the laboratory specified control limits.
  ___ Yes
  _X_ No ï see following table

QC Sample ID	Parameter	% REC	Lab Flag	Lab Advisory Limits (% REC)
H19100551-006CMSD	Total Phosphorus	118	S	90-110

S ï Spike recovery outside of recovery limits

8. LABORATORY CONTROL SAMPLES

- LCS Samples

Laboratory Control Samples used the correct matrix and concentrations
___Yes
___No
_X_NA

Laboratory Control Samples were prepared and analyzed at the required frequency
___Yes
___No
_X_NA

All analytes in the laboratory control samples were less than the control limits specified
_X_Yes
____No

9. DATA QUALITY OBJECTIVES

- Project data quality objectives (DQOs) met

_X_Yes
___No

Accuracy
Accuracy for this project is the degree of agreement between an analytical measurement and a reference accepted as a true value. The accuracy of a measurement system can be affected by errors introduced by field contamination, sample preservation, sample handling, sample preparation and analytical techniques. Analysis of MS/MSD samples, laboratory control spikes (LCS) or blank spikes, surrogate standards and method blanks are typically used to calculate the percent recovery for evaluating accuracy. Accuracy for this sampling event was 99 percent.

Precision
Precision for this project is the degree of mutual agreement between individual measurements of the same property under similar conditions. Combined field and laboratory precision is evaluated by collecting and analyzing field duplicate and then calculating the variance between the samples, typically as a relative percent difference (RPD). Laboratory analytical precision is evaluated by analyzing matrix spike/matrix spike duplicate samples and using the results to calculate an RPD. The combined precision was 99 percent for this sampling event for both laboratory and field.

Representativeness
Representativeness for this project is the degree to which sample data accurately and precisely represent the characteristics of a population, and variations in a parameter at a sampling point or an environmental condition that they are intended to represent. Typically representative data will be obtained through careful selection of sampling locations and analytical parameters; proper collection and handling of samples and through use and consistent application of

established field and laboratory procedures. Evaluation of field and laboratory blank samples for presence of contaminants can be useful in evaluating representativeness of sample results. Both laboratory and field representativeness for this sampling event was 100 percent.

Completeness

The target completeness for this project is the percent of the measurements valid (not rejected). Valid data are obtained when samples are collected and analyzed in accordance with quality control procedures outlined in the SAP, and when none of the QC criteria that affect data usability are exceeded. Once data validation is complete the number of useable sample results is divided by the total number of sample results planned for the investigation to determine the percent completeness. Completeness for this sampling event was 100 percent.

Comparability

Comparability is the expression of the confidence with which one data set can be compared with another. Comparability of data is achieved by consistently following standard field and laboratory procedures and by using standard measurement units in reporting analytical data. This criterion was met.

REFERENCES

Montana Department of Environmental Quality, Data Validation Guidelines for Evaluating Analytical Data (Updated August 5, 2010)

EPA, 2017a. National Functional Guidelines for Organic Superfund Methods Data Review. EPA-540-R-2017-002. Office of Superfund Remediation and Technology Innovation. January 2017.

EPA, 2017b. National Functional Guidelines for Inorganic Superfund Methods Data Review. EPA-540-R-2017-001. Office of Superfund Remediation and Technology Innovation. January 2017.

Hem, J.D., 1992. Study and Interpretation of the Chemical Characteristics of Natural Water, 3rd edition. US Geological Survey Water Supply Paper 2254.

APPENDIX 1

TABLES

TABLE 1.

DATA VALIDATION CODES AND DEFINITIONS

CODE	DEFINITION
J	-The associated numerical value is an estimated quantity because quality control criteria were not met.
B	- Blank contamination. Indicates possible high bias and / or false positive. The associated value is an estimate.
R	- Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis is necessary for verification.
A	- Anomalous data. No apparent explanation for discrepancy in data. (Not an EPA code.)

Table 2. Summary of Flagged Data

StationName	Sample Date	Field Sample Id	Lab Name	Lab Sample Id	Parameter Name	Sample Result	Reporting Units	Validation Flag	Exceedance Type
DS-1	10/24/2019	BBC-1910-117	Energy Labs	H19100566-004	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance
DS-3	10/24/2019	BBC-1910-122	Energy Labs	H19100566-008	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance
PW-7	10/23/2019	BBC-1910-700	Energy Labs	H19100566-013	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance
SP-10	10/24/2019	BBC-1910-115	Energy Labs	H19100566-002	Total Suspended Solids	300	mg/L	J	Duplicate Exceedance
SP-11	10/23/2019	BBC-1910-106	Energy Labs	H19100566-001	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance
SP-12	10/24/2019	BBC-1910-120	Energy Labs	H19100566-006	Total Suspended Solids	26	mg/L	J	Duplicate Exceedance
SP-3	10/24/2019	BBC-1910-124	Energy Labs	H19100566-009	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance
SP-4	10/24/2019	BBC-1910-121	Energy Labs	H19100566-007	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance
SP-5	10/24/2019	BBC-1910-118	Energy Labs	H19100566-005	Total Suspended Solids	20	mg/L	J	Duplicate Exceedance
SP-6	10/24/2019	BBC-1910-126	Energy Labs	H19100566-010	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance
SP-7	10/24/2019	BBC-1910-127	Energy Labs	H19100566-011	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance
SW-1	10/23/2019	BBC-1910-100	Energy Labs	H19100567-001	Total Suspended Solids	<4	mg/L	J	Duplicate Exceedance
SW-14	10/23/2019	BBC-1910-102	Energy Labs	H19100567-003	Total Suspended Solids	<4	mg/L	J	Duplicate Exceedance
SW-17	10/23/2019	BBC-1910-101	Energy Labs	H19100567-002	Total Suspended Solids	<4	mg/L	J	Duplicate Exceedance
SW-2	10/23/2019	BBC-1910-103	Energy Labs	H19100567-004	Total Suspended Solids	<4	mg/L	J	Duplicate Exceedance
SW-3	10/24/2019	BBC-1910-119	Energy Labs	H19100567-008	Total Suspended Solids	14	mg/L	J	Duplicate Exceedance
					Iron (TRC)	0.03	mg/L	B	Blank Exceedance
SW-4	10/23/2019	BBC-1910-107	Energy Labs	H19100567-007	Total Suspended Solids	<4	mg/L	J	Duplicate Exceedance
USGS-SC1	10/23/2019	BBC-1910-104	Energy Labs	H19100567-005	Total Suspended Solids	<4	mg/L	J	Duplicate Exceedance

Black Butte Mine Data Comparison Summary

Report Date: November 15, 2019

SAMPLE NO BBC-1910-117 LAB NO: H19100566-004 STATION: DS-1

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	10.16	03/25/15-09/25/19	O	35	35	8.15	916.0	11.01	9.5	153.19	317.39	0
Field pH (s.u.)	s.u.	7.83	03/25/15-09/25/19	O	34	34	7.36	8.56	7.79	7.8	0.29	8.37	0
Field SC (umhos/cm)	umhos/cm	426	03/25/15-09/25/19	O	35	35	337.0	698.7	419.5	418	53	525.5	0
Flow (Gallons Per Min)	allons Per M	4.91	03/25/15-09/25/19	O	31	31	0.06	62.27	5.83	6.3	14.85	35.53	0
Water Temp (Deg C)	Deg C	5	03/25/15-09/25/19	O	35	35	0.5	18.3	5.7	7.2	3.3	12.3	0
TDS (mg/L)	mg/L	229	03/25/15-09/25/19	O	35	35	203.0	245.0	230.2	231	9.5	249.2	0
TSS (mg/L)	mg/L	<10	03/25/15-09/25/19	O	35	10	< 10	1130.0					0
Alkalinity (mg/L)	mg/L	220	03/25/15-09/25/19	O	35	35	180.0	220.0	215.0	220	8.2	231.4	0
Calcium (mg/L)	mg/L	58	05/29/19-09/25/19	O	5	5	53.0	60.0	55.7	55	2.8	61.3	60
Chloride (mg/L)	mg/L	<1	03/25/15-09/25/19	O	35	0	< 1	< 1					0
Fluoride (mg/L)	mg/L	0.1	03/25/15-09/25/19	O	35	32	0.1	0.1	0.1	0.1	0	0.1	4
Hardness (mg/L)	mg/L	234	03/25/15-09/25/19	O	35	35	185.0	249.0	227.9	229	12	251.9	0
Magnesium (mg/L)	mg/L	22	05/29/19-09/25/19	O	5	5	20.0	22.0	20.6	20	0.9	22.4	23
Potassium (mg/L)	mg/L	<1	05/29/19-09/25/19	O	5	0	< 1	< 1					1
Sodium (mg/L)	mg/L	2	05/29/19-09/25/19	O	5	5	2.0	2.0	2.0	2	0	2.0	2
Sulfate (mg/L)	mg/L	15	03/25/15-09/25/19	O	35	35	11.0	18.0	14.7	15	1.7	18.1	0
N+N (mg/L)	mg/L	0.19	03/25/15-09/25/19	O	35	35	0.03	0.26	0.17	0.19	0.06	0.29	10
Aluminum (DIS) (mg/L)	mg/L	<0.009	05/29/19-09/25/19	O	5	0	< 0.009	< 0 .009					0.009
Antimony (DIS) (mg/L)	mg/L	<0.0005	05/29/19-09/25/19	O	5	0	< 0.0005	< 0 .0005					0.0005
Arsenic (DIS) (mg/L)	mg/L	<0.001	05/29/19-09/25/19	O	5	0	< 0.001	< 0 .001					0.001
Barium (DIS) (mg/L)	mg/L	0.052	05/29/19-09/25/19	O	5	5	0.05	0.071	0.054	0.05	0.009	0.072	0.068
Beryllium (DIS) (mg/L)	mg/L	<0.0008	05/29/19-09/25/19	O	5	0	< 0.0008	< 0 .0008					0.0008
Cadmium (DIS) (mg/L)	mg/L	<0.00003	05/29/19-09/25/19	O	5	0	< 0	< .00003					0
Chromium (DIS) (mg/L)	mg/L	<0.01	05/29/19-09/25/19	O	5	0	< 0.01	< 0 .01					0.01
Cobalt (DIS) (mg/L)	mg/L	<0.01	05/29/19-09/25/19	O	5	0	< 0.01	< 0 .01					0.01
Copper (DIS) (mg/L)	mg/L	<0.002	05/29/19-09/25/19	O	5	0	< 0.002	< 0 .002					0.002
Iron (DIS) (mg/L)	mg/L	<0.02	05/29/19-09/25/19	O	5	0	< 0.02	< 0 .02					0.02
Lead (DIS) (mg/L)	mg/L	<0.0003	05/29/19-09/25/19	O	5	0	< 0.0003	< 0 .0003					0.0003
Manganese (DIS) (mg/L)	mg/L	<0.005	05/29/19-09/25/19	O	5	0	< 0.005	< 0 .005					0.005
Mercury (DIS) (ug/L)	ug/L	<0.005	05/29/19-09/25/19	O	5	0	< 0.005	< 0 .005					0.005
Molybdenum (DIS) (mg/L)	mg/L	<0.002	05/29/19-09/25/19	O	5	0	< 0.002	< 0 .002					0.002
Nickel (DIS) (mg/L)	mg/L	<0.001	05/29/19-09/25/19	O	5	0	< 0.001	< 0 .001					0.001
Selenium (DIS) (mg/L)	mg/L	<0.0002	05/29/19-09/25/19	O	5	1	< 0.0002	< 0 .0002					0.0002
Silver (DIS) (mg/L)	mg/L	<0.0002	05/29/19-09/25/19	O	5	0	< 0.0002	< 0 .0002					0.0002
Strontium (DIS) (mg/L)	mg/L	0.111	05/29/19-09/25/19	O	5	5	0.1	0.119	0.108	0.107	0.007	0.122	0.118
Thallium (DIS) (mg/L)	mg/L	<0.0002	05/29/19-09/25/19	O	5	0	< 0.0002	< 0 .0002					0.0002
Uranium (DIS) (mg/L)	mg/L	0.0006	05/29/19-09/25/19	O	5	5	0.0006	0.0007	0.0006	0.0006	0	0.0006	0.008
Zinc (DIS) (mg/L)	mg/L	0.003	05/29/19-09/25/19	O	5	2	< 0.002	0.009					0.02

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: November 15, 2019

SAMPLE NO BBC-1910-122 | LAB NO: H19100566-008 | STATION: DS-3

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	8.8	08/06/14-09/24/19	O	33	33	3.7	10.8	6.6	7	2.1	10.8	0
Field pH (s.u.)	s.u.	7.99	08/06/14-09/24/19	O	33	33	5.56	8.7	7.05	7.16	0.94	8.93	0
Field SC (umhos/cm)	umhos/cm	54.2	08/06/14-09/24/19	O	33	33	40.0	132.0	56.4	55.7	20	96.4	0
Flow (Gallons Per Min)	allons Per M	0.32	08/06/14-09/24/19	O	29	29	0.47	159.0	4.42	6.6	28.88	62.18	0
Water Temp (Deg C)	Deg C	4.6	08/06/14-09/24/19	O	33	33	3.8	15.1	8.4	9.5	2.9	14.2	0
TDS (mg/L)	mg/L	49	08/06/14-09/24/19	O	33	33	47.0	128.0	68.9	66	21.2	111.3	0
TSS (mg/L)	mg/L	<10	08/06/14-09/24/19	O	33	4	< 4	95.0					0
Alkalinity (mg/L)	mg/L	24	08/06/14-09/24/19	O	33	33	17.0	29.0	22.2	23	2.7	27.6	0
Calcium (mg/L)	mg/L	7	05/29/19-09/24/19	O	5	5	5.0	6.0	5.4	5	0.5	6.4	7
Chloride (mg/L)	mg/L	<1	08/06/14-09/24/19	O	33	3	< 1	< 1					0
Fluoride (mg/L)	mg/L	<0.1	08/06/14-09/24/19	O	33	2	0.0	< .1					4
Hardness (mg/L)	mg/L	25	08/06/14-09/24/19	O	33	33	19.0	26.0	22.6	23	1.8	26.2	0
Magnesium (mg/L)	mg/L	2	05/29/19-09/24/19	O	5	5	1.0	2.0	1.7	2	0.4	2.5	2
Potassium (mg/L)	mg/L	<1	05/29/19-09/24/19	O	5	4	1.0	1.0	1.0	1	0	1.0	1
Sodium (mg/L)	mg/L	1	05/29/19-09/24/19	O	5	5	1.0	1.0	1.0	1	0	1.0	2
Sulfate (mg/L)	mg/L	2	08/06/14-09/24/19	O	33	33	1.0	2.0	1.3	1	0.5	2.3	0
N+N (mg/L)	mg/L	0.37	08/06/14-09/24/19	O	33	33	0.11	0.48	0.27	0.29	0.09	0.45	10
Aluminum (DIS) (mg/L)	mg/L	0.68	05/29/19-09/24/19	O	5	5	0.18	2.0	0.97	1.41	0.77	2.51	4.42
Antimony (DIS) (mg/L)	mg/L	<0.0005	05/29/19-09/24/19	O	5	0	< 0.0005	< 0 .0005					0.0005
Arsenic (DIS) (mg/L)	mg/L	<0.001	05/29/19-09/24/19	O	5	0	< 0.001	< 0 .001					0.002
Barium (DIS) (mg/L)	mg/L	0.282	05/29/19-09/24/19	O	5	5	0.229	0.274	0.252	0.25	0.018	0.288	0.311
Beryllium (DIS) (mg/L)	mg/L	<0.0008	05/29/19-09/24/19	O	5	0	< 0.0008	< 0 .0008					0.0008
Cadmium (DIS) (mg/L)	mg/L	<0.00003	05/29/19-09/24/19	O	5	0	< 0	< .00003					0
Chromium (DIS) (mg/L)	mg/L	<0.01	05/29/19-09/24/19	O	5	0	< 0.01	< 0 .01					0.01
Cobalt (DIS) (mg/L)	mg/L	<0.01	05/29/19-09/24/19	O	5	0	< 0.01	< 0 .01					0.01
Copper (DIS) (mg/L)	mg/L	<0.002	05/29/19-09/24/19	O	5	3	< 0.002	0.004	0.002	0.002	0.001	0.004	0.004
Iron (DIS) (mg/L)	mg/L	0.35	05/29/19-09/24/19	O	5	5	0.21	1.24	0.63	0.78	0.46	1.55	2.62
Lead (DIS) (mg/L)	mg/L	<0.0003	05/29/19-09/24/19	O	5	2	< 0.0003	< 0 .0003					0.0009
Manganese (DIS) (mg/L)	mg/L	<0.005	05/29/19-09/24/19	O	5	2	< 0.005	0.008					0.017
Mercury (DIS) (ug/L)	ug/L	0.005	05/29/19-09/24/19	O	5	5	0.006	0.02	0.008	0.006	0.006	0.02	0.01
Molybdenum (DIS) (mg/L)	mg/L	<0.002	05/29/19-09/24/19	O	5	0	< 0.002	< 0 .002					0.002
Nickel (DIS) (mg/L)	mg/L	0.003	05/29/19-09/24/19	O	5	5	0.002	0.004	0.003	0.003	0.001	0.005	0.006
Selenium (DIS) (mg/L)	mg/L	<0.0002	05/29/19-09/24/19	O	5	0	< 0.0002	< 0 .0002					0.0002
Silver (DIS) (mg/L)	mg/L	<0.0002	05/29/19-09/24/19	O	5	0	< 0.0002	< 0 .0002					0.0002
Strontium (DIS) (mg/L)	mg/L	0.0314	05/29/19-09/24/19	O	5	5	0.0231	0.0306	0.0272	0.0292	0.0034	0.034	0.0313
Thallium (DIS) (mg/L)	mg/L	<0.0002	05/29/19-09/24/19	O	5	0	< 0.0002	< 0 .0002					0.0002
Uranium (DIS) (mg/L)	mg/L	<0.0002	05/29/19-09/24/19	O	5	0	< 0.0002	< 0 .0002					0.008
Zinc (DIS) (mg/L)	mg/L	0.004	05/29/19-09/24/19	O	5	4	< 0.002	0.007	0.005	0.006	0.002	0.009	0.012

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: November 15, 2019

SAMPLE NO BBC-1910-700 LAB NO: H19100566-013 STATION: PW-7

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	0.04	03/24/15-07/10/19	O	5	5	0.08	0.39	0.15	0.11	0.13	0.41	0
Field pH (s.u.)	s.u.	8.55	08/25/14-07/10/19	O	6	6	8.64	11.58	9.69	9.4	1.18	12.05	0
Field SC (umhos/cm)	umhos/cm	554	08/25/14-07/10/19	O	6	6	481.0	842.0	588.4	553.5	129.7	847.8	0
Water Temp (Deg C)	Deg C	11.3	08/25/14-07/10/19	O	6	6	5.3	13.4	10.3	11.7	3	16.3	0
TDS (mg/L)	mg/L	309	08/25/14-07/10/19	O	7	7	312.0	359.0	324.5	319	15.8	356.1	0
TSS (mg/L)	mg/L	<10	08/25/14-07/10/19	O	7	1	< 10	19.0					0
Alkalinity (mg/L)	mg/L	290	08/25/14-07/10/19	O	7	7	170.0	290.0	249.7	290	55.3	360.3	0
Calcium (mg/L)	mg/L	11	07/10/19	O	1	1	9.0	9.0	9.0	9	0	9.0	10
Chloride (mg/L)	mg/L	5	08/25/14-07/10/19	O	7	7	3.0	52.0	8.9	6	19	46.9	0
Fluoride (mg/L)	mg/L	1.4	08/25/14-07/10/19	O	7	7	1.4	1.6	1.5	1.5	0.1	1.7	4
Hardness (mg/L)	mg/L	93	08/25/14-07/10/19	O	7	6	< 7	91.0	49.8	85	34.7	119.2	0
Magnesium (mg/L)	mg/L	16	07/10/19	O	1	1	15.0	15.0	15.0	15	0	15.0	16
Potassium (mg/L)	mg/L	8	07/10/19	O	1	1	8.0	8.0	8.0	8	0	8.0	20
Sodium (mg/L)	mg/L	95	07/10/19	O	1	1	99.0	99.0	99.0	99	0	99.0	101
Sulfate (mg/L)	mg/L	13	08/25/14-07/10/19	O	7	7	11.0	45.0	15.9	12	12.3	40.5	0
N+N (mg/L)	mg/L	<0.01	08/25/14-07/10/19	O	7	0	< 0.01	< 0 .01					10
Aluminum (DIS) (mg/L)	mg/L	<0.009	07/10/19	O	1	0	< 0.009	< 0 .009					0.44
Antimony (DIS) (mg/L)	mg/L	<0.0005	07/10/19	O	1	0	< 0.0005	< 0 .0005					0.0048
Arsenic (DIS) (mg/L)	mg/L	0.002	07/10/19	O	1	1	0.002	0.002	0.002	0.002	0	0.002	0.003
Barium (DIS) (mg/L)	mg/L	0.233	07/10/19	O	1	1	0.236	0.236	0.236	0.236	0	0.236	0.224
Beryllium (DIS) (mg/L)	mg/L	<0.0008	07/10/19	O	1	0	< 0.0008	< 0 .0008					0.0008
Cadmium (DIS) (mg/L)	mg/L	<0.00003	07/10/19	O	1	0	< 0	< .00003					0
Chromium (DIS) (mg/L)	mg/L	<0.01	07/10/19	O	1	0	< 0.01	< 0 .01					0.01
Cobalt (DIS) (mg/L)	mg/L	<0.01	07/10/19	O	1	0	< 0.01	< 0 .01					0.01
Copper (DIS) (mg/L)	mg/L	<0.002	07/10/19	O	1	0	< 0.002	< 0 .002					0.002
Iron (DIS) (mg/L)	mg/L	1.14	07/10/19	O	1	1	0.83	0.83	0.83	0.83	0	0.83	1.01
Lead (DIS) (mg/L)	mg/L	<0.0003	07/10/19	O	1	1	0.0004	0.0004	0.0004	0.0004	0	0.0004	0.0005
Manganese (DIS) (mg/L)	mg/L	0.09	07/10/19	O	1	1	0.07	0.07	0.07	0.07	0	0.07	0.087
Mercury (DIS) (ug/L)	ug/L	<0.005	07/10/19	O	1	0	< 0.005	< 0 .005					0.002
Molybdenum (DIS) (mg/L)	mg/L	<0.002	07/10/19	O	1	0	< 0.002	< 0 .002					0.023
Nickel (DIS) (mg/L)	mg/L	<0.001	07/10/19	O	1	0	< 0.001	< 0 .001					0.001
Selenium (DIS) (mg/L)	mg/L	<0.0002	07/10/19	O	1	0	< 0.0002	< 0 .0002					0.0003
Silver (DIS) (mg/L)	mg/L	<0.0002	07/10/19	O	1	0	< 0.0002	< 0 .0002					0.0002
Strontium (DIS) (mg/L)	mg/L	0.382	07/10/19	O	1	1	0.349	0.349	0.349	0.349	0	0.349	0.344
Thallium (DIS) (mg/L)	mg/L	<0.0002	07/10/19	O	1	0	< 0.0002	< 0 .0002					0.0002
Uranium (DIS) (mg/L)	mg/L	<0.0002	07/10/19	O	1	0	< 0.0002	< 0 .0002					0.008
Zinc (DIS) (mg/L)	mg/L	0.154	07/10/19	O	1	1	0.148	0.148	0.148	0.148	0	0.148	0.156

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: November 15, 2019

SAMPLE NO BBC-1910-115 | LAB NO: H19100566-002 | STATION: SP-10

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	7.95	05/23/18-09/24/19	O	13	13	6.76	8.93	7.99	7.98	0.55	9.09	0
Field pH (s.u.)	s.u.	7.7	05/23/18-09/24/19	O	13	13	6.9	8.1	7.7	7.7	0.4	8.5	0
Field SC (umhos/cm)	umhos/cm	421	05/23/18-09/24/19	O	13	13	305.0	434.0	396.3	402	35.7	467.7	0
Flow (Gallons Per Min)	allons Per M	0.06	05/23/18-09/24/19	O	12	12	0.58	59.69	5.78	4.67	21.08	47.94	0
Water Temp (Deg C)	Deg C	6.07	05/23/18-09/24/19	O	13	13	4.6	12.2	7.63	8.1	2	11.63	0
TDS (mg/L)	mg/L	225	05/23/18-09/24/19	O	13	13	196.0	235.0	221.8	229	14	249.8	0
TSS (mg/L)	mg/L	300 J	05/23/18-09/24/19	O	13	4	< 10	68.0					0
Alkalinity (mg/L)	mg/L	220	05/23/18-09/24/19	O	13	13	180.0	220.0	210.4	220	12.6	235.6	0
Calcium (mg/L)	mg/L	62	05/29/19-09/24/19	O	5	5	51.0	58.0	53.9	54	2.7	59.3	60
Chloride (mg/L)	mg/L	<1	05/23/18-09/24/19	O	13	0	< 1	< 1					0
Fluoride (mg/L)	mg/L	0.1	05/23/18-09/24/19	O	13	13	0.1	0.1	0.1	0.1	0	0.1	4
Hardness (mg/L)	mg/L	240	05/23/18-09/24/19	O	13	13	193.0	245.0	220.2	218	15.4	251.0	0
Magnesium (mg/L)	mg/L	20	05/29/19-09/24/19	O	5	5	18.0	20.0	19.2	20	1.1	21.4	21.7
Potassium (mg/L)	mg/L	1	05/29/19-09/24/19	O	5	3	1.0	1.0	1.0	1	0	1.0	1
Sodium (mg/L)	mg/L	2	05/29/19-09/24/19	O	5	5	1.0	2.0	1.7	2	0.4	2.5	2
Sulfate (mg/L)	mg/L	15	05/23/18-09/24/19	O	13	13	8.0	17.0	13.1	14	2.7	18.5	0
N+N (mg/L)	mg/L	0.17	05/23/18-09/24/19	O	13	13	0.06	0.28	0.19	0.22	0.06	0.31	10
Aluminum (DIS) (mg/L)	mg/L	<0.009	05/29/19-09/24/19	O	5	0	< 0.009	< 0 .009					0.009
Antimony (DIS) (mg/L)	mg/L	<0.0005	05/29/19-09/24/19	O	5	0	< 0.0005	< 0 .0005					0.0005
Arsenic (DIS) (mg/L)	mg/L	<0.001	05/29/19-09/24/19	O	5	0	< 0.001	< 0 .001					0.001
Barium (DIS) (mg/L)	mg/L	0.055	05/29/19-09/24/19	O	5	5	0.046	0.055	0.051	0.052	0.003	0.057	0.055
Beryllium (DIS) (mg/L)	mg/L	<0.0008	05/29/19-09/24/19	O	5	0	< 0.0008	< 0 .0008					0.0008
Cadmium (DIS) (mg/L)	mg/L	<0.00003	05/29/19-09/24/19	O	5	0	< 0	< .00003					0
Chromium (DIS) (mg/L)	mg/L	<0.01	05/29/19-09/24/19	O	5	0	< 0.01	< 0 .01					0.01
Cobalt (DIS) (mg/L)	mg/L	<0.01	05/29/19-09/24/19	O	5	0	< 0.01	< 0 .01					0.01
Copper (DIS) (mg/L)	mg/L	<0.002	05/29/19-09/24/19	O	5	0	< 0.002	< 0 .002					0.002
Iron (DIS) (mg/L)	mg/L	0.08	05/29/19-09/24/19	O	5	0	< 0.02	< 0 .02					0.02
Lead (DIS) (mg/L)	mg/L	<0.0003	05/29/19-09/24/19	O	5	0	< 0.0003	< 0 .0003					0.0003
Manganese (DIS) (mg/L)	mg/L	0.113	05/29/19-09/24/19	O	5	0	< 0.005	< 0 .005					0.011
Mercury (DIS) (ug/L)	ug/L	<0.005	05/29/19-09/24/19	O	5	0	< 0.005	< 0 .005					0.005
Molybdenum (DIS) (mg/L)	mg/L	<0.002	05/29/19-09/24/19	O	5	0	< 0.002	< 0 .002					0.002
Nickel (DIS) (mg/L)	mg/L	<0.001	05/29/19-09/24/19	O	5	0	< 0.001	< 0 .001					0.001
Selenium (DIS) (mg/L)	mg/L	0.0003	05/29/19-09/24/19	O	5	2	< 0.0002	0.0003					0.0003
Silver (DIS) (mg/L)	mg/L	<0.0002	05/29/19-09/24/19	O	5	0	< 0.0002	< 0 .0002					0.0002
Strontium (DIS) (mg/L)	mg/L	0.12	05/29/19-09/24/19	O	5	5	0.1	0.12	0.11	0.11	0.01	0.13	0.12
Thallium (DIS) (mg/L)	mg/L	<0.0002	05/29/19-09/24/19	O	5	0	< 0.0002	< 0 .0002					0.0002
Uranium (DIS) (mg/L)	mg/L	0.0008	05/29/19-09/24/19	O	5	5	0.0007	0.0008	0.0007	0.0007	0	0.0007	0.008
Zinc (DIS) (mg/L)	mg/L	<0.002	05/29/19-09/24/19	O	5	0	< 0.002	< 0 .002					0.002

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: November 15, 2019

SAMPLE NO BBC-1910-106 | LAB NO: H19100566-001 | STATION: SP-11

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	6.99	04/18/18-09/25/19	O	14	14	6.09	8.36	7.12	7.01	0.6	8.32	0
Field pH (s.u.)	s.u.	8.08	04/18/18-09/25/19	O	14	14	6.28	7.98	7.43	7.59	0.48	8.39	0
Field SC (umhos/cm)	umhos/cm	194	04/18/18-09/25/19	O	14	14	171.0	196.0	187.1	190.5	8.1	203.3	0
Water Temp (Deg C)	Deg C	6.5	04/18/18-09/25/19	O	14	14	5.6	7.7	6.5	6.5	0.6	7.7	0
TDS (mg/L)	mg/L	114	04/18/18-09/25/19	O	14	14	99.0	133.0	117.5	116.5	9.8	137.1	0
TSS (mg/L)	mg/L	<10	04/18/18-09/25/19	O	14	1	< 10	< 10					0
Alkalinity (mg/L)	mg/L	94	04/18/18-09/25/19	O	14	14	82.0	96.0	91.9	92.5	3.4	98.7	0
Calcium (mg/L)	mg/L	26	06/19/19-09/25/19	O	4	4	23.0	23.0	23.0	23	0	23.0	23.6
Chloride (mg/L)	mg/L	<1	04/18/18-09/25/19	O	14	0	< 1	< 1					0
Fluoride (mg/L)	mg/L	0.2	04/18/18-09/25/19	O	14	14	0.1	0.2	0.1	0.2	0.1	0.3	4
Hardness (mg/L)	mg/L	98	04/18/18-09/25/19	O	14	14	81.0	95.0	91.1	92	3.6	98.3	0
Magnesium (mg/L)	mg/L	8	06/19/19-09/25/19	O	4	4	8.0	9.0	8.2	8	0.5	9.2	9
Potassium (mg/L)	mg/L	1	06/19/19-09/25/19	O	4	4	1.0	1.0	1.0	1	0	1.0	1
Sodium (mg/L)	mg/L	4	06/19/19-09/25/19	O	4	4	3.0	4.0	3.2	3	0.5	4.2	4
Sulfate (mg/L)	mg/L	7	04/18/18-09/25/19	O	14	14	5.0	8.0	6.7	7	0.8	8.3	0
N+N (mg/L)	mg/L	0.23	04/18/18-09/25/19	O	14	14	0.22	0.31	0.25	0.25	0.02	0.29	10
Aluminum (DIS) (mg/L)	mg/L	0.047	06/19/19-09/25/19	O	4	4	0.023	0.079	0.048	0.055	0.024	0.096	0.149
Antimony (DIS) (mg/L)	mg/L	<0.0005	06/19/19-09/25/19	O	4	0	< 0.0005	< 0 .0005					0.0005
Arsenic (DIS) (mg/L)	mg/L	0.006	06/19/19-09/25/19	O	4	4	0.006	0.007	0.006	0.006	0.001	0.008	0.008
Barium (DIS) (mg/L)	mg/L	0.304	06/19/19-09/25/19	O	4	4	0.303	0.309	0.306	0.306	0.003	0.312	0.308
Beryllium (DIS) (mg/L)	mg/L	<0.0008	06/19/19-09/25/19	O	4	0	< 0.0008	< 0 .0008					0.0008
Cadmium (DIS) (mg/L)	mg/L	<0.00003	06/19/19-09/25/19	O	4	0	< 0	< .00003					0
Chromium (DIS) (mg/L)	mg/L	<0.01	06/19/19-09/25/19	O	4	0	< 0.01	< 0 .01					0.01
Cobalt (DIS) (mg/L)	mg/L	<0.01	06/19/19-09/25/19	O	4	0	< 0.01	< 0 .01					0.01
Copper (DIS) (mg/L)	mg/L	<0.002	06/19/19-09/25/19	O	4	0	< 0.002	< 0 .002					0.002
Iron (DIS) (mg/L)	mg/L	0.03	06/19/19-09/25/19	O	4	2	< 0.02	0.04					0.07
Lead (DIS) (mg/L)	mg/L	<0.0003	06/19/19-09/25/19	O	4	0	< 0.0003	< 0 .0003					0.0003
Manganese (DIS) (mg/L)	mg/L	<0.005	06/19/19-09/25/19	O	4	0	< 0.005	< 0 .005					0.005
Mercury (DIS) (ug/L)	ug/L	<0.005	06/19/19-09/25/19	O	4	0	< 0.005	< 0 .005					0.005
Molybdenum (DIS) (mg/L)	mg/L	<0.002	06/19/19-09/25/19	O	4	0	< 0.002	< 0 .002					0.002
Nickel (DIS) (mg/L)	mg/L	<0.001	06/19/19-09/25/19	O	4	0	< 0.001	< 0 .001					0.001
Selenium (DIS) (mg/L)	mg/L	<0.0002	06/19/19-09/25/19	O	4	0	< 0.0002	< 0 .0002					0.0002
Silver (DIS) (mg/L)	mg/L	<0.0002	06/19/19-09/25/19	O	4	0	< 0.0002	< 0 .0002					0.0002
Strontium (DIS) (mg/L)	mg/L	0.108	06/19/19-09/25/19	O	4	4	0.095	0.109	0.102	0.103	0.006	0.114	0.104
Thallium (DIS) (mg/L)	mg/L	<0.0002	06/19/19-09/25/19	O	4	0	< 0.0002	< 0 .0002					0.0002
Uranium (DIS) (mg/L)	mg/L	0.0003	06/19/19-09/25/19	O	4	4	0.0003	0.0005	0.0004	0.0004	0.0001	0.0006	0.008
Zinc (DIS) (mg/L)	mg/L	0.006	06/19/19-09/25/19	O	4	0	< 0.002	< 0 .002					0.002

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: November 15, 2019

SAMPLE NO BBC-1910-120 | LAB NO: H19100566-006 | STATION: SP-12

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	4.29	04/18/18-09/25/19	O	14	14	3.32	10.38	6.28	6.56	2	10.28	0
Field pH (s.u.)	s.u.	7.78	04/18/18-09/25/19	O	14	14	6.76	8.1	7.59	7.71	0.35	8.29	0
Field SC (umhos/cm)	umhos/cm	450	04/18/18-09/25/19	O	14	14	400.0	473.0	435.2	434.5	19.5	474.2	0
Flow (Gallons Per Min)	allons Per M	NF-Dry	09/19/18	O	1	1	0.0	0.0	0.0	0	0	0.0	0
Water Temp (Deg C)	Deg C	6.2	04/18/18-09/25/19	O	14	14	5.1	8.7	6.6	6.5	1.1	8.8	0
TDS (mg/L)	mg/L	243	04/18/18-09/25/19	O	15	15	230.0	262.0	245.7	247	9.5	264.7	0
TSS (mg/L)	mg/L	26 J	04/18/18-09/25/19	O	15	8	< 10	187.0	22.0	10	51.1	124.2	0
Alkalinity (mg/L)	mg/L	210	04/18/18-09/25/19	O	15	15	180.0	220.0	202.4	210	11	224.4	0
Calcium (mg/L)	mg/L	56	05/30/19-09/25/19	O	5	5	47.0	55.0	51.1	52	2.9	56.9	57.5
Chloride (mg/L)	mg/L	9	04/18/18-09/25/19	O	15	15	5.0	10.0	7.8	8	1.5	10.8	0
Fluoride (mg/L)	mg/L	0.2	04/18/18-09/25/19	O	15	15	0.2	0.2	0.2	0.2	0	0.2	4
Hardness (mg/L)	mg/L	240	04/18/18-09/25/19	O	15	15	200.0	258.0	231.3	233	14.5	260.3	0
Magnesium (mg/L)	mg/L	24	05/30/19-09/25/19	O	5	5	20.0	24.0	22.2	23	1.6	25.4	25.5
Potassium (mg/L)	mg/L	1	05/30/19-09/25/19	O	5	5	1.0	2.0	1.1	1	0.4	1.9	2
Sodium (mg/L)	mg/L	2	05/30/19-09/25/19	O	5	5	2.0	2.0	2.0	2	0	2.0	2.5
Sulfate (mg/L)	mg/L	20	04/18/18-09/25/19	O	15	15	13.0	28.0	22.1	23	3.9	29.9	0
N+N (mg/L)	mg/L	0.23	04/18/18-09/25/19	O	15	15	0.12	0.69	0.34	0.33	0.15	0.64	10
Aluminum (DIS) (mg/L)	mg/L	0.026	05/30/19-09/25/19	O	5	0	< 0.009	< 0 .009					0.009
Antimony (DIS) (mg/L)	mg/L	<0.0005	05/30/19-09/25/19	O	5	0	< 0.0005	< 0 .0005					0.0005
Arsenic (DIS) (mg/L)	mg/L	<0.001	05/30/19-09/25/19	O	5	0	< 0.001	< 0 .001					0.001
Barium (DIS) (mg/L)	mg/L	0.19	05/30/19-09/25/19	O	5	5	0.16	0.18	0.17	0.17	0.01	0.19	0.189
Beryllium (DIS) (mg/L)	mg/L	<0.0008	05/30/19-09/25/19	O	5	0	< 0.0008	< 0 .0008					0.0008
Cadmium (DIS) (mg/L)	mg/L	<0.00003	05/30/19-09/25/19	O	5	0	< 0	< .00003					0
Chromium (DIS) (mg/L)	mg/L	<0.01	05/30/19-09/25/19	O	5	0	< 0.01	< 0 .01					0.01
Cobalt (DIS) (mg/L)	mg/L	<0.01	05/30/19-09/25/19	O	5	0	< 0.01	< 0 .01					0.01
Copper (DIS) (mg/L)	mg/L	<0.002	05/30/19-09/25/19	O	5	0	< 0.002	< 0 .002					0.002
Iron (DIS) (mg/L)	mg/L	0.06	05/30/19-09/25/19	O	5	3	0.02	0.29	0.04	0.02	0.12	0.28	0.07
Lead (DIS) (mg/L)	mg/L	0.0004	05/30/19-09/25/19	O	5	0	< 0.0003	< 0 .0003					0.0003
Manganese (DIS) (mg/L)	mg/L	<0.005	05/30/19-09/25/19	O	5	2	< 0.005	0.02					0.01
Mercury (DIS) (ug/L)	ug/L	<0.005	05/30/19-09/25/19	O	5	1	< 0.005	< 0 .005					0.005
Molybdenum (DIS) (mg/L)	mg/L	<0.002	05/30/19-09/25/19	O	5	0	< 0.002	< 0 .002					0.002
Nickel (DIS) (mg/L)	mg/L	<0.001	05/30/19-09/25/19	O	5	0	< 0.001	< 0 .001					0.001
Selenium (DIS) (mg/L)	mg/L	<0.0002	05/30/19-09/25/19	O	5	1	< 0.0002	< 0 .0002					0.0002
Silver (DIS) (mg/L)	mg/L	<0.0002	05/30/19-09/25/19	O	5	0	< 0.0002	< 0 .0002					0.0002
Strontium (DIS) (mg/L)	mg/L	0.115	05/30/19-09/25/19	O	5	5	0.097	0.116	0.104	0.103	0.007	0.118	0.115
Thallium (DIS) (mg/L)	mg/L	<0.0002	05/30/19-09/25/19	O	5	0	< 0.0002	< 0 .0002					0.0002
Uranium (DIS) (mg/L)	mg/L	0.0006	05/30/19-09/25/19	O	5	5	0.0005	0.0006	0.0006	0.0006	0	0.0006	0.008
Zinc (DIS) (mg/L)	mg/L	<0.002	05/30/19-09/25/19	O	5	0	< 0.002	< 0 .002					0.003

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: November 15, 2019

SAMPLE NO BBC-1910-124 | LAB NO: H19100566-009 | STATION: SP-3

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	10.27	07/20/11-09/24/19	O	32	32	5.02	19.38	9.27	9.23	2.41	14.09	0
Field pH (s.u.)	s.u.	7.62	07/20/11-09/24/19	O	31	31	6.2	8.66	7.37	7.42	0.57	8.51	0
Field SC (umhos/cm)	umhos/cm	198	07/20/11-09/24/19	O	32	32	103.0	223.0	162.4	172.5	37.5	237.4	0
Flow (Gallons Per Min)	allons Per M	0.18	07/20/11-09/24/19	O	30	29	< 0.01	8.1	0.7	0.77	1.92	4.54	0
Water Temp (Deg C)	Deg C	3.6	07/20/11-09/24/19	O	32	32	1.7	17.0	7.1	7.9	3.8	14.7	0
TDS (mg/L)	mg/L	123	07/20/11-09/24/19	O	32	32	113.0	214.0	138.6	134	21.9	182.4	0
TSS (mg/L)	mg/L	<10	08/28/13-09/24/19	O	30	17	10.0	191.0	23.7	14	49.6	122.9	0
Alkalinity (mg/L)	mg/L	96	07/20/11-09/24/19	O	32	32	44.0	100.0	75.0	80.5	19.7	114.4	0
Calcium (mg/L)	mg/L	29	05/29/19-09/24/19	O	5	5	17.0	27.0	21.2	22	4.6	30.4	30
Chloride (mg/L)	mg/L	<1	07/20/11-09/24/19	O	32	5	< 1	2.0					0
Fluoride (mg/L)	mg/L	0.1	07/20/11-09/24/19	O	32	32	0.1	0.1	0.1	0.1	0	0.1	4
Hardness (mg/L)	mg/L	98	07/20/11-09/24/19	O	32	32	48.0	109.0	79.0	83	17.5	114.0	0
Magnesium (mg/L)	mg/L	6	05/29/19-09/24/19	O	5	5	4.0	6.0	4.7	5	0.8	6.3	7
Potassium (mg/L)	mg/L	1	05/29/19-09/24/19	O	5	5	1.0	2.0	1.1	1	0.4	1.9	2.7
Sodium (mg/L)	mg/L	3	05/29/19-09/24/19	O	5	5	2.0	3.0	2.4	2	0.5	3.4	3
Sulfate (mg/L)	mg/L	6	07/20/11-09/24/19	O	32	32	3.0	7.0	5.2	5.8	1.2	7.6	0
N+N (mg/L)	mg/L	0.28	07/20/11-09/24/19	O	32	32	0.1	0.43	0.27	0.29	0.07	0.41	10
Aluminum (DIS) (mg/L)	mg/L	0.114	05/29/19-09/24/19	O	5	5	0.065	1.2	0.249	0.198	0.462	1.173	3.6
Antimony (DIS) (mg/L)	mg/L	<0.0005	05/29/19-09/24/19	O	5	0	< 0.0005	< 0 .0005					0.001
Arsenic (DIS) (mg/L)	mg/L	0.001	05/29/19-09/24/19	O	5	5	0.001	0.002	0.002	0.002	0	0.002	0.003
Barium (DIS) (mg/L)	mg/L	0.312	05/29/19-09/24/19	O	5	5	0.214	0.315	0.259	0.262	0.042	0.343	0.32
Beryllium (DIS) (mg/L)	mg/L	<0.0008	05/29/19-09/24/19	O	5	0	< 0.0008	< 0 .0008					0.001
Cadmium (DIS) (mg/L)	mg/L	<0.00003	05/29/19-09/24/19	O	5	1	< 0	< .00003					0.0001
Chromium (DIS) (mg/L)	mg/L	<0.01	05/29/19-09/24/19	O	5	0	< 0.01	< 0 .01					0.01
Cobalt (DIS) (mg/L)	mg/L	<0.01	05/29/19-09/24/19	O	5	0	< 0.01	< 0 .01					0.01
Copper (DIS) (mg/L)	mg/L	<0.002	05/29/19-09/24/19	O	5	2	< 0.002	0.004					0.007
Iron (DIS) (mg/L)	mg/L	0.07	05/29/19-09/24/19	O	5	5	0.03	0.81	0.15	0.1	0.34	0.83	2.32
Lead (DIS) (mg/L)	mg/L	<0.0003	05/29/19-09/24/19	O	5	1	< 0.0003	< 0 .0003					0.0008
Manganese (DIS) (mg/L)	mg/L	<0.005	05/29/19-09/24/19	O	5	2	< 0.005	0.011					0.016
Mercury (DIS) (ug/L)	ug/L	<0.005	05/29/19-09/24/19	O	5	4	< 0.005	0.02	0.008	0.006	0.006	0.02	0.01
Molybdenum (DIS) (mg/L)	mg/L	<0.002	05/29/19-09/24/19	O	5	0	< 0.002	< 0 .002					0.002
Nickel (DIS) (mg/L)	mg/L	<0.001	05/29/19-09/24/19	O	5	3	< 0.001	0.003	0.001	0.001	0.001	0.003	0.009
Selenium (DIS) (mg/L)	mg/L	<0.0002	05/29/19-09/24/19	O	5	0	< 0.0002	< 0 .0002					0
Silver (DIS) (mg/L)	mg/L	<0.0002	05/29/19-09/24/19	O	5	0	< 0.0002	< 0 .0002					0.0003
Strontium (DIS) (mg/L)	mg/L	0.0848	05/29/19-09/24/19	O	5	5	0.0473	0.0851	0.0626	0.0602	0.015	0.0926	0.1
Thallium (DIS) (mg/L)	mg/L	<0.0002	05/29/19-09/24/19	O	5	0	< 0.0002	< 0 .0002					0.0002
Uranium (DIS) (mg/L)	mg/L	0.0002	05/29/19-09/24/19	O	5	0	< 0.0002	< 0 .0002					0.008
Zinc (DIS) (mg/L)	mg/L	<0.002	05/29/19-09/24/19	O	5	1	< 0.002	0.004					0.01

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: November 15, 2019

SAMPLE NO BBC-1910-121 | LAB NO: H19100566-007 | STATION: SP-4

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	9.66	07/21/11-09/24/19	O	54	54	6.7	13.95	9.81	9.7	1.35	12.51	0
Field pH (s.u.)	s.u.	7.78	07/21/11-09/24/19	O	53	53	6.95	8.63	7.7	7.71	0.29	8.28	0
Field SC (umhos/cm)	umhos/cm	429	07/21/11-09/24/19	O	54	54	162.0	481.0	420.3	430.5	46.4	513.1	0
Flow (Gallons Per Min)	allons Per M	4.35	07/21/11-09/24/19	O	46	46	0.0	50.27	3.43	5.4	10.3	24.03	0
Water Temp (Deg C)	Deg C	7	07/21/11-09/24/19	O	53	53	0.1	12.2	5.7	6.7	2.1	9.9	0
TDS (mg/L)	mg/L	231	07/21/11-09/24/19	O	55	55	202.0	272.0	246.3	248	13.7	273.7	0
TSS (mg/L)	mg/L	<10	08/28/13-09/24/19	O	52	32	5.0	890.0	20.2	11.5	126.9	274.0	0
Alkalinity (mg/L)	mg/L	200	07/21/11-09/24/19	O	55	55	190.0	210.0	200.7	200	5	210.7	0
Calcium (mg/L)	mg/L	49	05/30/19-09/24/19	O	5	5	46.0	47.0	46.8	47	0.4	47.6	53.4
Chloride (mg/L)	mg/L	<1	07/21/11-09/24/19	O	55	14	1.0	1.0					0
Fluoride (mg/L)	mg/L	0.2	07/21/11-09/24/19	O	55	55	0.2	0.3	0.2	0.2	0	0.2	4
Hardness (mg/L)	mg/L	227	07/21/11-09/24/19	O	54	54	208.0	255.0	234.7	235.5	12.1	258.9	0
Magnesium (mg/L)	mg/L	25	05/30/19-09/24/19	O	5	5	24.0	25.0	24.2	24	0.4	25.0	28
Potassium (mg/L)	mg/L	2	05/30/19-09/24/19	O	5	5	2.0	2.0	2.0	2	0	2.0	2
Sodium (mg/L)	mg/L	2	05/30/19-09/24/19	O	5	5	2.0	2.0	2.0	2	0	2.0	2
Sulfate (mg/L)	mg/L	30	07/21/11-09/24/19	O	55	55	10.0	45.0	34.9	38	6.7	48.3	0
N+N (mg/L)	mg/L	0.27	07/21/11-09/24/19	O	55	55	0.18	0.35	0.25	0.25	0.03	0.31	10
Aluminum (DIS) (mg/L)	mg/L	<0.009	05/30/19-09/24/19	O	5	1	< 0.009	0.01					0.017
Antimony (DIS) (mg/L)	mg/L	<0.0005	05/30/19-09/24/19	O	5	0	< 0.0005	< 0 .0005					0.001
Arsenic (DIS) (mg/L)	mg/L	<0.001	05/30/19-09/24/19	O	5	0	< 0.001	< 0 .001					0.001
Barium (DIS) (mg/L)	mg/L	0.117	05/30/19-09/24/19	O	5	5	0.108	0.115	0.111	0.112	0.003	0.117	0.119
Beryllium (DIS) (mg/L)	mg/L	<0.0008	05/30/19-09/24/19	O	5	0	< 0.0008	< 0 .0008					0.001
Cadmium (DIS) (mg/L)	mg/L	<0.00003	05/30/19-09/24/19	O	5	0	< 0	< .00003					0
Chromium (DIS) (mg/L)	mg/L	<0.01	05/30/19-09/24/19	O	5	0	< 0.01	< 0 .01					0.01
Cobalt (DIS) (mg/L)	mg/L	<0.01	05/30/19-09/24/19	O	5	0	< 0.01	< 0 .01					0.01
Copper (DIS) (mg/L)	mg/L	<0.002	05/30/19-09/24/19	O	5	0	< 0.002	< 0 .002					0.002
Iron (DIS) (mg/L)	mg/L	0.03	05/30/19-09/24/19	O	5	2	< 0.02	0.08					0.04
Lead (DIS) (mg/L)	mg/L	<0.0003	05/30/19-09/24/19	O	5	0	< 0.0003	< 0 .0003					0.0003
Manganese (DIS) (mg/L)	mg/L	<0.005	05/30/19-09/24/19	O	5	4	< 0.005	0.018	0.008	0.007	0.005	0.018	0.013
Mercury (DIS) (ug/L)	ug/L	<0.005	05/30/19-09/24/19	O	5	0	< 0.005	< 0 .005					0.005
Molybdenum (DIS) (mg/L)	mg/L	<0.002	05/30/19-09/24/19	O	5	0	< 0.002	< 0 .002					0.002
Nickel (DIS) (mg/L)	mg/L	<0.001	05/30/19-09/24/19	O	5	0	< 0.001	< 0 .001					0
Selenium (DIS) (mg/L)	mg/L	0.0003	05/30/19-09/24/19	O	5	5	0.0003	0.0004	0.0003	0.0003	0.0001	0.0005	0.001
Silver (DIS) (mg/L)	mg/L	<0.0002	05/30/19-09/24/19	O	5	0	< 0.0002	< 0 .0002					0.0002
Strontium (DIS) (mg/L)	mg/L	0.0722	05/30/19-09/24/19	O	5	5	0.0641	0.0738	0.0697	0.0704	0.0035	0.0767	0.1
Thallium (DIS) (mg/L)	mg/L	0.0003	05/30/19-09/24/19	O	5	5	0.0002	0.0003	0.0003	0.0003	0.0001	0.0005	0.0004
Uranium (DIS) (mg/L)	mg/L	0.0005	05/30/19-09/24/19	O	5	5	0.0004	0.0005	0.0005	0.0005	0.0001	0.0007	0.008
Zinc (DIS) (mg/L)	mg/L	0.003	05/30/19-09/24/19	O	5	0	< 0.002	< 0 .002					0

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: November 15, 2019

SAMPLE NO BBC-1910-118 | LAB NO: H19100566-005 | STATION: SP-5

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	8.37	08/28/18-08/20/19	O	4	4	6.18	7.4	6.58	6.4	0.55	7.68	0
Field pH (s.u.)	s.u.	7.81	08/28/18-08/20/19	O	4	4	7.28	8.09	7.75	7.83	0.37	8.49	0
Field SC (umhos/cm)	umhos/cm	389	08/28/18-08/20/19	O	4	4	389.0	414.0	401.3	401.5	13.3	427.9	0
Flow (Gallons Per Min)	allons Per M	NF	08/28/18-08/20/19	O	4	4	0.6	2.6	1.3	1.4	0.9	3.1	0
Water Temp (Deg C)	Deg C	3.4	08/28/18-08/20/19	O	4	4	5.2	16.8	10.5	12.6	5.8	22.1	0
TDS (mg/L)	mg/L	212	08/28/18-08/20/19	O	4	4	223.0	233.0	227.0	226	4.5	236.0	0
TSS (mg/L)	mg/L	20 J	08/28/18-08/20/19	O	4	4	28.0	137.0	64.9	70.5	47.5	159.9	0
Alkalinity (mg/L)	mg/L	210	08/28/18-08/20/19	O	4	4	220.0	230.0	222.5	220	5	232.5	0
Calcium (mg/L)	mg/L	56	07/24/19-08/20/19	O	2	2	57.0	63.0	59.9	60	4.2	68.3	61.8
Chloride (mg/L)	mg/L	<1	08/28/18-08/20/19	O	4	0	< 1	< 1					0
Fluoride (mg/L)	mg/L	0.1	08/28/18-08/20/19	O	4	2	< 0.1	< 0 .1					4
Hardness (mg/L)	mg/L	218	08/28/18-08/20/19	O	4	4	216.0	237.0	224.6	223	9	242.6	0
Magnesium (mg/L)	mg/L	19	07/24/19-08/20/19	O	2	2	18.0	19.0	18.5	18.5	0.7	19.9	19
Potassium (mg/L)	mg/L	1	07/24/19-08/20/19	O	2	0	< 1	< 1					1
Sodium (mg/L)	mg/L	2	07/24/19-08/20/19	O	2	2	2.0	2.0	2.0	2	0	2.0	2
Sulfate (mg/L)	mg/L	9	08/28/18-08/20/19	O	4	4	9.0	11.0	10.0	10	0.8	11.6	0
N+N (mg/L)	mg/L	<0.01	08/28/18-08/20/19	O	4	4	0.02	0.04	0.03	0.03	0.01	0.05	10
Aluminum (DIS) (mg/L)	mg/L	<0.009	07/24/19-08/20/19	O	2	1	< 0.009	0.029					0.021
Antimony (DIS) (mg/L)	mg/L	<0.0005	07/24/19-08/20/19	O	2	0	< 0.0005	< 0 .0005					0.0005
Arsenic (DIS) (mg/L)	mg/L	<0.001	07/24/19-08/20/19	O	2	0	< 0.001	< 0 .001					0.001
Barium (DIS) (mg/L)	mg/L	0.054	07/24/19-08/20/19	O	2	2	0.057	0.058	0.057	0.058	0.001	0.059	0.059
Beryllium (DIS) (mg/L)	mg/L	<0.0008	07/24/19-08/20/19	O	2	0	< 0.0008	< 0 .0008					0.0008
Cadmium (DIS) (mg/L)	mg/L	<0.00003	07/24/19-08/20/19	O	2	0	< 0	< .00003					0
Chromium (DIS) (mg/L)	mg/L	<0.01	07/24/19-08/20/19	O	2	0	< 0.01	< 0 .01					0.01
Cobalt (DIS) (mg/L)	mg/L	<0.01	07/24/19-08/20/19	O	2	0	< 0.01	< 0 .01					0.01
Copper (DIS) (mg/L)	mg/L	<0.002	07/24/19-08/20/19	O	2	0	< 0.002	< 0 .002					0.002
Iron (DIS) (mg/L)	mg/L	0.03	07/24/19-08/20/19	O	2	0	< 0.02	< 0 .02					0.02
Lead (DIS) (mg/L)	mg/L	<0.0003	07/24/19-08/20/19	O	2	0	< 0.0003	< 0 .0003					0.0003
Manganese (DIS) (mg/L)	mg/L	0.016	07/24/19-08/20/19	O	2	1	< 0.005	0.017					0.017
Mercury (DIS) (ug/L)	ug/L	<0.005	07/24/19-08/20/19	O	2	0	< 0.005	< 0 .005					0.005
Molybdenum (DIS) (mg/L)	mg/L	<0.002	07/24/19-08/20/19	O	2	0	< 0.002	< 0 .002					0.002
Nickel (DIS) (mg/L)	mg/L	<0.001	07/24/19-08/20/19	O	2	0	< 0.001	< 0 .001					0.001
Selenium (DIS) (mg/L)	mg/L	<0.0002	07/24/19-08/20/19	O	2	0	< 0.0002	< 0 .0002					0.0002
Silver (DIS) (mg/L)	mg/L	<0.0002	07/24/19-08/20/19	O	2	0	< 0.0002	< 0 .0002					0.0002
Strontium (DIS) (mg/L)	mg/L	0.136	07/24/19-08/20/19	O	2	2	0.126	0.136	0.131	0.131	0.007	0.145	0.139
Thallium (DIS) (mg/L)	mg/L	<0.0002	07/24/19-08/20/19	O	2	0	< 0.0002	< 0 .0002					0.0002
Uranium (DIS) (mg/L)	mg/L	0.0007	07/24/19-08/20/19	O	2	2	0.0005	0.0006	0.0005	0.0006	0.0001	0.0007	0.008
Zinc (DIS) (mg/L)	mg/L	<0.002	07/24/19-08/20/19	O	2	0	< 0.002	< 0 .002					0.002

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: November 15, 2019

SAMPLE NO BBC-1910-126 | LAB NO: H19100566-010 | STATION: SP-6

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	9.43	10/12/11-09/24/19	O	47	47	6.7	282.0	10.45	9.54	39.73	89.91	0
Field pH (s.u.)	s.u.	7.67	10/12/11-09/24/19	O	46	46	5.81	8.72	7.33	7.48	0.64	8.61	0
Field SC (umhos/cm)	umhos/cm	292	10/12/11-09/24/19	O	47	47	188.0	327.0	267.6	269	19.2	306.0	0
Flow (Gallons Per Min)	allons Per M	0.93	10/12/11-08/20/19	O	44	36	0.27	3.5	1.08	1	0.82	2.72	0
Water Temp (Deg C)	Deg C	6.8	10/12/11-09/24/19	O	46	46	4.4	10.3	7.2	7.6	1.4	10.0	0
TDS (mg/L)	mg/L	165	10/12/11-09/24/19	O	47	47	145.0	188.0	161.4	161	8.3	178.0	0
TSS (mg/L)	mg/L	<10	08/28/13-09/24/19	O	45	14	< 4	216.0					0
Alkalinity (mg/L)	mg/L	150	10/12/11-09/24/19	O	47	47	120.0	160.0	134.9	130	7.5	149.9	0
Calcium (mg/L)	mg/L	37	05/30/19-09/24/19	O	5	5	32.0	36.0	34.6	36	1.9	38.4	37
Chloride (mg/L)	mg/L	<1	10/12/11-09/24/19	O	47	12	< 1	2.0					0
Fluoride (mg/L)	mg/L	0.2	10/12/11-09/24/19	O	47	47	0.1	0.2	0.2	0.2	0	0.2	4
Hardness (mg/L)	mg/L	149	10/12/11-09/24/19	O	47	47	129.0	160.0	140.6	141	6.7	154.0	0
Magnesium (mg/L)	mg/L	14	05/30/19-09/24/19	O	5	5	12.0	14.0	12.8	13	0.8	14.4	14
Potassium (mg/L)	mg/L	1	05/30/19-09/24/19	O	5	1	< 1	< 1					1
Sodium (mg/L)	mg/L	2	05/30/19-09/24/19	O	5	5	2.0	2.0	2.0	2	0	2.0	2
Sulfate (mg/L)	mg/L	10	10/12/11-09/24/19	O	47	47	7.0	12.0	9.0	9.6	1.5	12.0	0
N+N (mg/L)	mg/L	0.41	10/12/11-09/24/19	O	47	47	0.31	0.68	0.39	0.37	0.07	0.53	10
Aluminum (DIS) (mg/L)	mg/L	<0.009	05/30/19-09/24/19	O	5	0	< 0.009	< 0 .009					0.03
Antimony (DIS) (mg/L)	mg/L	<0.0005	05/30/19-09/24/19	O	5	0	< 0.0005	< 0 .0005					0.001
Arsenic (DIS) (mg/L)	mg/L	<0.001	05/30/19-09/24/19	O	5	0	< 0.001	< 0 .001					0.001
Barium (DIS) (mg/L)	mg/L	0.216	05/30/19-09/24/19	O	5	5	0.185	0.214	0.202	0.208	0.013	0.228	0.208
Beryllium (DIS) (mg/L)	mg/L	<0.0008	05/30/19-09/24/19	O	5	0	< 0.0008	< 0 .0008					0.001
Cadmium (DIS) (mg/L)	mg/L	<0.00003	05/30/19-09/24/19	O	5	0	< 0	< .00003					0
Chromium (DIS) (mg/L)	mg/L	<0.01	05/30/19-09/24/19	O	5	0	< 0.01	< 0 .01					0.01
Cobalt (DIS) (mg/L)	mg/L	<0.01	05/30/19-09/24/19	O	5	0	< 0.01	< 0 .01					0.01
Copper (DIS) (mg/L)	mg/L	<0.002	05/30/19-09/24/19	O	5	0	< 0.002	< 0 .002					0.002
Iron (DIS) (mg/L)	mg/L	0.02	05/30/19-09/24/19	O	5	0	< 0.02	< 0 .02					0.08
Lead (DIS) (mg/L)	mg/L	<0.0003	05/30/19-09/24/19	O	5	0	< 0.0003	< 0 .0003					0.0003
Manganese (DIS) (mg/L)	mg/L	<0.005	05/30/19-09/24/19	O	5	0	< 0.005	< 0 .005					0.015
Mercury (DIS) (ug/L)	ug/L	<0.005	05/30/19-09/24/19	O	5	0	< 0.005	< 0 .005					0.005
Molybdenum (DIS) (mg/L)	mg/L	<0.002	05/30/19-09/24/19	O	5	0	< 0.002	< 0 .002					0.002
Nickel (DIS) (mg/L)	mg/L	<0.001	05/30/19-09/24/19	O	5	0	< 0.001	< 0 .001					0
Selenium (DIS) (mg/L)	mg/L	<0.0002	05/30/19-09/24/19	O	5	2	0.0002	0.0002					0
Silver (DIS) (mg/L)	mg/L	<0.0002	05/30/19-09/24/19	O	5	0	< 0.0002	< 0 .0002					0.0002
Strontium (DIS) (mg/L)	mg/L	0.0829	05/30/19-09/24/19	O	5	5	0.0696	0.0818	0.0742	0.0722	0.0056	0.0854	0.1
Thallium (DIS) (mg/L)	mg/L	0.0006	05/30/19-09/24/19	O	5	5	0.0004	0.0006	0.0005	0.0005	0.0001	0.0007	0.0006
Uranium (DIS) (mg/L)	mg/L	0.0004	05/30/19-09/24/19	O	5	5	0.0004	0.0005	0.0004	0.0004	0	0.0004	0.008
Zinc (DIS) (mg/L)	mg/L	<0.002	05/30/19-09/24/19	O	5	0	< 0.002	< 0 .002					0

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: November 15, 2019

SAMPLE NO BBC-1910-127 | LAB NO: H19100566-011 | STATION: SP-7

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	2.03	03/26/15-09/25/19	O	51	51	2.0	10.98	3.65	3.48	1.64	6.93	0
Field pH (s.u.)	s.u.	7.39	03/26/15-09/25/19	O	50	50	6.17	8.18	7.39	7.38	0.32	8.03	0
Field SC (umhos/cm)	umhos/cm	334	03/26/15-09/25/19	O	51	51	196.0	354.0	321.4	330	29.2	379.8	0
Flow (Gallons Per Min)	allons Per M	13.02	03/26/15-09/25/19	O	45	45	6.7	136.0	18.78	15.3	25.03	68.84	0
Water Temp (Deg C)	Deg C	7.2	03/26/15-09/25/19	O	50	50	5.1	7.9	6.6	6.7	0.7	8.0	0
TDS (mg/L)	mg/L	185	03/26/15-09/25/19	O	51	51	173.0	200.0	187.3	188	6.6	200.5	0
TSS (mg/L)	mg/L	<10	03/26/15-09/25/19	O	51	7	< 4	146.0					0
Alkalinity (mg/L)	mg/L	170	03/26/15-09/25/19	O	51	51	160.0	170.0	166.2	170	4.9	176.0	0
Calcium (mg/L)	mg/L	44	05/30/19-09/25/19	O	5	5	40.0	43.0	41.4	41	1.1	43.6	44.8
Chloride (mg/L)	mg/L	2	03/26/15-09/25/19	O	51	51	1.0	2.0	1.8	2	0.3	2.4	0
Fluoride (mg/L)	mg/L	0.3	03/26/15-09/25/19	O	51	51	0.3	0.4	0.3	0.3	0	0.3	4
Hardness (mg/L)	mg/L	169	03/26/15-09/25/19	O	51	51	153.0	178.0	167.3	167	5.9	179.1	0
Magnesium (mg/L)	mg/L	14	05/30/19-09/25/19	O	5	5	13.0	15.0	14.0	14	0.7	15.4	15
Potassium (mg/L)	mg/L	3	05/30/19-09/25/19	O	5	5	3.0	3.0	3.0	3	0	3.0	3
Sodium (mg/L)	mg/L	5	05/30/19-09/25/19	O	5	5	5.0	5.0	5.0	5	0	5.0	5
Sulfate (mg/L)	mg/L	10	03/26/15-09/25/19	O	51	51	7.0	12.0	9.7	10	1.2	12.1	0
N+N (mg/L)	mg/L	0.32	03/26/15-09/25/19	O	51	51	0.27	0.41	0.31	0.31	0.03	0.37	10
Aluminum (DIS) (mg/L)	mg/L	<0.009	05/30/19-09/25/19	O	5	0	< 0.009	< 0 .009					0.009
Antimony (DIS) (mg/L)	mg/L	<0.0005	05/30/19-09/25/19	O	5	0	< 0.0005	< 0 .0005					0.0005
Arsenic (DIS) (mg/L)	mg/L	0.004	05/30/19-09/25/19	O	5	5	0.003	0.004	0.004	0.004	0	0.004	0.004
Barium (DIS) (mg/L)	mg/L	0.118	05/30/19-09/25/19	O	5	5	0.113	0.118	0.116	0.116	0.002	0.12	0.118
Beryllium (DIS) (mg/L)	mg/L	<0.0008	05/30/19-09/25/19	O	5	0	< 0.0008	< 0 .0008					0.0008
Cadmium (DIS) (mg/L)	mg/L	<0.00003	05/30/19-09/25/19	O	5	0	< 0	< .00003					0
Chromium (DIS) (mg/L)	mg/L	<0.01	05/30/19-09/25/19	O	5	0	< 0.01	< 0 .01					0.01
Cobalt (DIS) (mg/L)	mg/L	<0.01	05/30/19-09/25/19	O	5	0	< 0.01	< 0 .01					0.01
Copper (DIS) (mg/L)	mg/L	<0.002	05/30/19-09/25/19	O	5	0	< 0.002	< 0 .002					0.002
Iron (DIS) (mg/L)	mg/L	0.03	05/30/19-09/25/19	O	5	0	< 0.02	< 0 .02					0.02
Lead (DIS) (mg/L)	mg/L	<0.0003	05/30/19-09/25/19	O	5	0	< 0.0003	< 0 .0003					0.0003
Manganese (DIS) (mg/L)	mg/L	<0.005	05/30/19-09/25/19	O	5	0	< 0.005	< 0 .005					0.005
Mercury (DIS) (ug/L)	ug/L	<0.005	05/30/19-09/25/19	O	5	0	< 0.005	< 0 .005					0.005
Molybdenum (DIS) (mg/L)	mg/L	<0.002	05/30/19-09/25/19	O	5	0	< 0.002	< 0 .002					0.002
Nickel (DIS) (mg/L)	mg/L	<0.001	05/30/19-09/25/19	O	5	0	< 0.001	< 0 .001					0.001
Selenium (DIS) (mg/L)	mg/L	0.0003	05/30/19-09/25/19	O	5	5	0.0003	0.0003	0.0003	0.0003	0	0.0003	0.0004
Silver (DIS) (mg/L)	mg/L	<0.0002	05/30/19-09/25/19	O	5	0	< 0.0002	< 0 .0002					0.0002
Strontium (DIS) (mg/L)	mg/L	0.175	05/30/19-09/25/19	O	5	5	0.154	0.174	0.166	0.169	0.008	0.182	0.174
Thallium (DIS) (mg/L)	mg/L	0.0012	05/30/19-09/25/19	O	5	5	0.001	0.0011	0.001	0.001	0	0.001	0.001
Uranium (DIS) (mg/L)	mg/L	0.0009	05/30/19-09/25/19	O	5	5	0.0008	0.0009	0.0009	0.0009	0	0.0009	0.008
Zinc (DIS) (mg/L)	mg/L	<0.002	05/30/19-09/25/19	O	5	0	< 0.002	< 0 .002					0.002

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: November 15, 2019

SAMPLE NO BBC-1910-100 LAB NO: H19100567-001 STATION: SW-1

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	11.7	05/24/11-09/23/19	O	83	83	3.9	15.0	10.8	10.8	2	14.8	0
Field pH (s.u.)	s.u.	8.63	05/24/11-09/23/19	O	82	82	5.3	8.71	7.87	8.11	0.66	9.19	0
Field SC (umhos/cm)	umhos/cm	306	05/24/11-09/23/19	O	83	83	176.0	363.0	283.5	310	52	387.5	0
Flow (Cubic Ft Sec)	Cubic Ft Se	26.85	05/24/11-09/23/19	O	63	63	0.0	613.0	18.51	30.28	93.21	204.93	0
Staff Gauge (Feet)	Feet	0.92	05/24/11-09/23/19	O	49	49	0.49	13.3	1.13	1	1.8	4.73	0
Water Temp (Deg C)	Deg C	2.2	05/24/11-09/23/19	O	83	83	-1.0	15.5	0.7	4.5	4.8	10.3	0
TDS (mg/L)	mg/L	164 D	05/24/11-09/23/19	O	75	75	107.0	227.0	169.5	182	25.5	220.5	0
TSS (mg/L)	mg/L	<4	05/30/12-09/23/19	O	71	29	< 4	43.0					0
Alkalinity (mg/L)	mg/L	160	05/24/11-09/23/19	O	75	75	87.0	200.0	153.2	170	28.1	209.4	0
Calcium (mg/L)	mg/L	46	05/30/19-09/23/19	O	5	5	28.0	48.0	40.1	42	7.6	55.3	50.4
Chloride (mg/L)	mg/L	2	05/24/11-09/23/19	O	75	74	1.0	5.0	1.3	1	0.7	2.7	0
Fluoride (mg/L)	mg/L	<0.1	05/24/11-09/23/19	O	75	24	0.1	0.2					4
Hardness (mg/L)	mg/L	165	05/24/11-09/23/19	O	74	73	< 7	199.0	145.1	164	33.5	212.1	0
Magnesium (mg/L)	mg/L	12	05/30/19-09/23/19	O	5	5	7.0	12.0	10.2	11	2.1	14.4	13
Potassium (mg/L)	mg/L	1	05/30/19-09/23/19	O	5	4	1.0	2.0	1.1	1	0.4	1.9	2
Sodium (mg/L)	mg/L	2	05/30/19-09/23/19	O	5	5	1.0	2.0	1.7	2	0.4	2.5	3
Sulfate (mg/L)	mg/L	7	05/24/11-09/23/19	O	75	75	2.0	18.0	5.2	5	2.2	9.6	0
N+N (mg/L)	mg/L	<0.01	05/24/11-09/23/19	O	75	34	< 0.01	0.15					10
Phosphorus (mg/L)	mg/L	0.005	05/30/19-09/23/19	O	5	5	0.009	0.021	0.014	0.014	0.005	0.024	0.03
Total N Pers (mg/L)	mg/L	0.06	04/29/15-09/23/19	O	49	45	< 0	1.12	0.12	0.14	0.16	0.44	0
Aluminum (DIS) (mg/L)	mg/L	<0.009	05/30/19-09/23/19	O	5	2	< 0.009	0.062					0.15
Antimony (TRC) (mg/L)	mg/L	<0.0005	05/30/19-09/23/19	O	5	0	< 0.0005	< 0 .0005					0.003
Arsenic (TRC) (mg/L)	mg/L	<0.001	05/30/19-09/23/19	O	5	0	< 0.001	< 0 .001					0.003
Barium (TRC) (mg/L)	mg/L	0.1	05/30/19-09/23/19	O	5	5	0.1	0.1	0.1	0.1	0	0.1	0.12
Beryllium (TRC) (mg/L)	mg/L	<0.0008	05/30/19-09/23/19	O	5	0	< 0.0008	< 0 .0008					0.001
Cadmium (TRC) (mg/L)	mg/L	<0.00003	05/30/19-09/23/19	O	5	0	< 0	< .00003					0.0001
Chromium (TRC) (mg/L)	mg/L	<0.01	05/30/19-09/23/19	O	5	0	< 0.01	< 0 .01					0.01
Cobalt (TRC) (mg/L)	mg/L	<0.01	05/30/19-09/23/19	O	5	0	< 0.01	< 0 .01					0.01
Copper (TRC) (mg/L)	mg/L	<0.002	05/30/19-09/23/19	O	5	0	< 0.002	< 0 .002					0.002
Iron (TRC) (mg/L)	mg/L	0.14	05/30/19-09/23/19	O	5	5	0.13	0.6	0.23	0.22	0.19	0.61	0.66
Lead (TRC) (mg/L)	mg/L	<0.0003	05/30/19-09/23/19	O	5	1	< 0.0003	< 0 .0003					0.0005
Manganese (TRC) (mg/L)	mg/L	0.012	05/30/19-09/23/19	O	5	5	0.014	0.021	0.016	0.015	0.003	0.022	0.026
Mercury (TRC) (ug/L)	ug/L	<0.005	05/30/19-09/23/19	O	5	2	< 0.005	0.011					0.005
Molybdenum (TRC) (mg/L)	mg/L	<0.002	05/30/19-09/23/19	O	5	0	< 0.002	< 0 .002					0.005
Nickel (TRC) (mg/L)	mg/L	<0.001	05/30/19-09/23/19	O	5	1	< 0.001	< 0 .001					0.01
Selenium (TRC) (mg/L)	mg/L	<0.0002	05/30/19-09/23/19	O	5	0	< 0.0002	< 0 .0002					0.001
Silver (TRC) (mg/L)	mg/L	<0.0002	05/30/19-09/23/19	O	5	0	< 0.0002	< 0 .0002					0.0005
Strontium (TRC) (mg/L)	mg/L	0.127	05/30/19-09/23/19	O	5	5	0.09	0.136	0.118	0.124	0.018	0.154	0.131
Thallium (TRC) (mg/L)	mg/L	<0.0002	05/30/19-09/23/19	O	5	0	< 0.0002	< 0 .0002					0.0002
Uranium (TRC) (mg/L)	mg/L	0.0003	05/30/19-09/23/19	O	5	5	0.0002	0.0004	0.0003	0.0003	0.0001	0.0005	0.008
Zinc (TRC) (mg/L)	mg/L	<0.004	05/30/19-09/23/19	O	5	2	< 0.002	< .004					0.01

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: November 15, 2019

SAMPLE NO BBC-1910-102 LAB NO: H19100567-003 STATION: SW-14

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	12.64	04/13/16-09/23/19	O	38	38	7.59	15.01	10.55	10.38	1.67	13.89	0
Field pH (s.u.)	s.u.	8.51	04/13/16-09/23/19	O	37	37	6.07	8.48	7.94	8.08	0.45	8.84	0
Field SC (umhos/cm)	umhos/cm	384	04/13/16-09/23/19	O	38	38	263.0	439.0	380.7	396	41.5	463.7	0
Flow (Cubic Ft Sec)	Cubic Ft Se	1.28	02/25/16-09/23/19	O	36	36	0.0	11.75	0.56	1.14	3.04	6.64	0
Water Temp (Deg C)	Deg C	5	04/13/16-09/23/19	O	38	38	-0.9	14.7	2.7	7.5	4.7	12.1	0
TDS (mg/L)	mg/L	209 D	04/13/16-09/23/19	O	36	36	175.0	266.0	225.0	227.5	16.4	257.8	0
TSS (mg/L)	mg/L	<4	04/13/16-09/23/19	O	36	6	< 4	15.0					0
Alkalinity (mg/L)	mg/L	210	04/13/16-09/23/19	O	36	36	160.0	220.0	205.6	210	17.4	240.4	0
Calcium (mg/L)	mg/L	52	05/30/19-09/23/19	O	5	5	51.0	55.0	52.8	53	1.5	55.8	59
Chloride (mg/L)	mg/L	2	04/13/16-09/23/19	O	36	36	1.0	4.0	2.0	2	0.6	3.2	0
Fluoride (mg/L)	mg/L	0.2	04/13/16-09/23/19	O	36	36	0.1	0.2	0.2	0.2	0	0.2	4
Hardness (mg/L)	mg/L	215	04/13/16-09/23/19	O	36	36	153.0	239.0	210.8	213	18	246.8	0
Magnesium (mg/L)	mg/L	21	05/30/19-09/23/19	O	5	5	17.0	19.0	18.0	18	1	20.0	21
Potassium (mg/L)	mg/L	1	05/30/19-09/23/19	O	5	5	1.0	1.0	1.0	1	0	1.0	1
Sodium (mg/L)	mg/L	2	05/30/19-09/23/19	O	5	5	2.0	3.0	2.2	2	0.4	3.0	3
Sulfate (mg/L)	mg/L	11	04/13/16-09/23/19	O	36	36	6.0	19.0	8.9	8.5	2.8	14.5	0
N+N (mg/L)	mg/L	0.02	04/13/16-09/23/19	O	36	34	0.01	0.27	0.06	0.08	0.08	0.22	10
Phosphorus (mg/L)	mg/L	0.008	05/30/19-09/23/19	O	5	5	0.005	0.011	0.008	0.009	0.002	0.012	0.014
Total N Pers (mg/L)	mg/L	0.14	04/13/16-09/23/19	O	33	32	< 0	1.25	0.17	0.2	0.21	0.59	0
Aluminum (DIS) (mg/L)	mg/L	<0.009	05/30/19-09/23/19	O	5	1	< 0.009	0.021					0.012
Antimony (TRC) (mg/L)	mg/L	<0.0005	05/30/19-09/23/19	O	5	0	< 0.0005	< 0 .0005					0.0005
Arsenic (TRC) (mg/L)	mg/L	<0.001	05/30/19-09/23/19	O	5	0	< 0.001	< 0 .001					0.001
Barium (TRC) (mg/L)	mg/L	0.109	05/30/19-09/23/19	O	5	5	0.103	0.121	0.113	0.112	0.008	0.129	0.12
Beryllium (TRC) (mg/L)	mg/L	<0.0008	05/30/19-09/23/19	O	5	0	< 0.0008	< 0 .0008					0.0008
Cadmium (TRC) (mg/L)	mg/L	<0.00003	05/30/19-09/23/19	O	5	0	< 0	< .00003					0
Chromium (TRC) (mg/L)	mg/L	<0.01	05/30/19-09/23/19	O	5	0	< 0.01	< 0 .01					0.01
Cobalt (TRC) (mg/L)	mg/L	<0.01	05/30/19-09/23/19	O	5	0	< 0.01	< 0 .01					0.01
Copper (TRC) (mg/L)	mg/L	<0.002	05/30/19-09/23/19	O	5	0	< 0.002	< 0 .002					0.002
Iron (TRC) (mg/L)	mg/L	0.11	05/30/19-09/23/19	O	5	5	0.06	0.11	0.08	0.07	0.03	0.14	0.17
Lead (TRC) (mg/L)	mg/L	<0.0003	05/30/19-09/23/19	O	5	0	< 0.0003	< 0 .0003					0.0003
Manganese (TRC) (mg/L)	mg/L	<0.005	05/30/19-09/23/19	O	5	5	0.005	0.008	0.007	0.007	0.001	0.009	0.007
Mercury (TRC) (ug/L)	ug/L	<0.005	05/30/19-09/23/19	O	5	2	< 0.005	0.006					0.005
Molybdenum (TRC) (mg/L)	mg/L	<0.002	05/30/19-09/23/19	O	5	0	< 0.002	< 0 .002					0.002
Nickel (TRC) (mg/L)	mg/L	<0.001	05/30/19-09/23/19	O	5	1	0.001	0.001					0.002
Selenium (TRC) (mg/L)	mg/L	<0.0002	05/30/19-09/23/19	O	5	0	< 0.0002	< 0 .0002					0.0002
Silver (TRC) (mg/L)	mg/L	<0.0002	05/30/19-09/23/19	O	5	0	< 0.0002	< 0 .0002					0.0002
Strontium (TRC) (mg/L)	mg/L	0.122	05/30/19-09/23/19	O	5	5	0.115	0.127	0.123	0.125	0.005	0.133	0.133
Thallium (TRC) (mg/L)	mg/L	<0.0002	05/30/19-09/23/19	O	5	0	< 0.0002	< 0 .0002					0.0002
Uranium (TRC) (mg/L)	mg/L	0.0005	05/30/19-09/23/19	O	5	5	0.0004	0.0005	0.0005	0.0005	0	0.0005	0.008
Zinc (TRC) (mg/L)	mg/L	<0.004	05/30/19-09/23/19	O	5	0	< 0.002	< .04					0

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: November 15, 2019

SAMPLE NO BBC-1910-101 LAB NO: H19100567-002 STATION: SW-17

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	11.46	01/17/18-09/23/19	O	17	17	8.46	12.9	10.24	10.32	1.1	12.44	0
Field pH (s.u.)	s.u.	8.39	01/17/18-09/23/19	O	17	17	7.47	8.41	8.09	8.1	0.23	8.55	0
Field SC (umhos/cm)	umhos/cm	488.5	01/17/18-09/23/19	O	17	17	319.0	487.0	429.4	437	40.3	510.0	0
Flow (Cubic Ft Sec)	Cubic Ft Se	0.24	01/17/18-09/23/19	O	13	13	0.0	1.8	0.09	0.24	0.55	1.19	0
Water Temp (Deg C)	Deg C	3.8	01/17/18-09/23/19	O	17	17	0.0	13.9	2.6	8.9	5	12.6	0
TDS (mg/L)	mg/L	280 D	01/17/18-09/23/19	O	18	18	197.0	314.0	254.8	258	29.2	313.2	0
TSS (mg/L)	mg/L	<4	01/17/18-09/23/19	O	18	8	< 4	19.0					0
Alkalinity (mg/L)	mg/L	210	01/17/18-09/23/19	O	18	18	150.0	230.0	203.0	210	18.2	239.4	0
Calcium (mg/L)	mg/L	61	05/30/19-09/23/19	O	5	5	45.0	60.0	52.3	52	5.7	63.7	59.2
Chloride (mg/L)	mg/L	13	01/17/18-09/23/19	O	18	18	3.0	14.0	4.5	4	2.5	9.5	0
Fluoride (mg/L)	mg/L	0.2	01/17/18-09/23/19	O	18	18	0.1	0.2	0.2	0.2	0	0.2	4
Hardness (mg/L)	mg/L	259	01/17/18-09/23/19	O	18	18	167.0	262.0	230.7	238.5	22.4	275.5	0
Magnesium (mg/L)	mg/L	26	05/30/19-09/23/19	O	5	5	20.0	23.0	22.4	23	1.3	25.0	25
Potassium (mg/L)	mg/L	1	05/30/19-09/23/19	O	5	4	1.0	1.0	1.0	1	0	1.0	1
Sodium (mg/L)	mg/L	3	05/30/19-09/23/19	O	5	5	2.0	3.0	2.8	3	0.4	3.6	3
Sulfate (mg/L)	mg/L	39	01/17/18-09/23/19	O	18	18	12.0	44.0	26.6	26	8.1	42.8	0
N+N (mg/L)	mg/L	0.03	01/17/18-09/23/19	O	18	17	< 0.01	0.19	0.07	0.09	0.06	0.19	10
Phosphorus (mg/L)	mg/L	0.01	05/30/19-09/23/19	O	5	5	0.01	0.03	0.01	0.01	0.01	0.03	0.019
Total N Pers (mg/L)	mg/L	0.15	04/12/18-09/23/19	O	15	15	0.12	0.49	0.23	0.23	0.1	0.43	0
Aluminum (DIS) (mg/L)	mg/L	<0.009	05/30/19-09/23/19	O	5	1	< 0.009	0.021					0.01
Antimony (TRC) (mg/L)	mg/L	<0.0005	05/30/19-09/23/19	O	5	0	< 0.0005	< 0 .0005					0.0005
Arsenic (TRC) (mg/L)	mg/L	<0.001	05/30/19-09/23/19	O	5	0	< 0.001	< 0 .001					0.001
Barium (TRC) (mg/L)	mg/L	0.172	05/30/19-09/23/19	O	5	5	0.122	0.174	0.152	0.157	0.019	0.19	0.162
Beryllium (TRC) (mg/L)	mg/L	<0.0008	05/30/19-09/23/19	O	5	0	< 0.0008	< 0 .0008					0.0008
Cadmium (TRC) (mg/L)	mg/L	<0.00003	05/30/19-09/23/19	O	5	0	< 0	< .00003					0
Chromium (TRC) (mg/L)	mg/L	<0.01	05/30/19-09/23/19	O	5	0	< 0.01	< 0 .01					0.01
Cobalt (TRC) (mg/L)	mg/L	<0.01	05/30/19-09/23/19	O	5	0	< 0.01	< 0 .01					0.01
Copper (TRC) (mg/L)	mg/L	<0.002	05/30/19-09/23/19	O	5	0	< 0.002	< 0 .002					0.002
Iron (TRC) (mg/L)	mg/L	0.35	05/30/19-09/23/19	O	5	5	0.16	0.37	0.23	0.21	0.09	0.41	0.32
Lead (TRC) (mg/L)	mg/L	<0.0003	05/30/19-09/23/19	O	5	0	< 0.0003	< 0 .0003					0.0003
Manganese (TRC) (mg/L)	mg/L	0.031	05/30/19-09/23/19	O	5	5	0.016	0.041	0.024	0.024	0.011	0.046	0.04
Mercury (TRC) (ug/L)	ug/L	<0.005	05/30/19-09/23/19	O	5	4	< 0.005	0.007	0.006	0.007	0.001	0.008	0.007
Molybdenum (TRC) (mg/L)	mg/L	<0.002	05/30/19-09/23/19	O	5	0	< 0.002	< 0 .002					0.002
Nickel (TRC) (mg/L)	mg/L	<0.001	05/30/19-09/23/19	O	5	0	< 0.001	< 0 .001					0.002
Selenium (TRC) (mg/L)	mg/L	<0.0002	05/30/19-09/23/19	O	5	0	< 0.0002	< 0 .0002					0.0002
Silver (TRC) (mg/L)	mg/L	<0.0002	05/30/19-09/23/19	O	5	0	< 0.0002	< 0 .0002					0.0002
Strontium (TRC) (mg/L)	mg/L	0.154	05/30/19-09/23/19	O	5	5	0.111	0.172	0.143	0.145	0.022	0.187	0.162
Thallium (TRC) (mg/L)	mg/L	<0.0002	05/30/19-09/23/19	O	5	0	< 0.0002	< 0 .0002					0.0002
Uranium (TRC) (mg/L)	mg/L	0.0006	05/30/19-09/23/19	O	5	5	0.0005	0.0008	0.0006	0.0006	0.0001	0.0008	0.008
Zinc (TRC) (mg/L)	mg/L	<0.004	05/30/19-09/23/19	O	5	2	< 0.002	0.005					0.005

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: November 15, 2019

SAMPLE NO BBC-1910-103 LAB NO: H19100567-004 STATION: SW-2

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	11.74	05/24/11-09/23/19	O	81	81	6.35	16.18	10.95	10.8	1.74	14.43	0
Field pH (s.u.)	s.u.	8.67	05/24/11-09/23/19	O	80	80	0.0	8.73	6.88	8.08	1.02	8.92	0
Field SC (umhos/cm)	umhos/cm	298	05/24/11-09/23/19	O	81	81	156.0	388.0	276.4	300	53.6	383.6	0
Flow (Cubic Ft Sec)	Cubic Ft Se	21.99	05/24/11-09/23/19	O	54	54	0.0	250.0	11.62	20.77	49.41	110.44	0
Staff Gauge (Feet)	Feet	0.4	05/24/11-09/23/19	O	44	44	0.2	1.8	0.7	0.7	0.4	1.5	0
Water Temp (Deg C)	Deg C	2	05/24/11-09/23/19	O	81	81	-1.0	15.8	0.3	3.3	4.9	10.1	0
TDS (mg/L)	mg/L	160 D	05/24/11-09/23/19	O	75	75	112.0	223.0	165.2	173	24.9	215.0	0
TSS (mg/L)	mg/L	<4	05/30/12-09/23/19	O	71	20	< 4	105.0					0
Alkalinity (mg/L)	mg/L	160	05/24/11-09/23/19	O	75	75	80.0	200.0	150.5	160	27.9	206.3	0
Calcium (mg/L)	mg/L	47	05/30/19-09/23/19	O	5	5	28.0	48.0	40.1	43	7.6	55.3	50.4
Chloride (mg/L)	mg/L	1	05/24/11-09/23/19	O	75	73	1.0	5.0	1.3	1	0.7	2.7	0
Fluoride (mg/L)	mg/L	<0.1	05/24/11-09/23/19	O	75	1	< 0.1	0.4					4
Hardness (mg/L)	mg/L	164	05/24/11-09/23/19	O	75	74	< 7	202.0	144.0	160	33.5	211.0	0
Magnesium (mg/L)	mg/L	11	05/30/19-09/23/19	O	5	5	7.0	11.0	9.9	11	1.7	13.3	13
Potassium (mg/L)	mg/L	1	05/30/19-09/23/19	O	5	4	1.0	1.0	1.0	1	0	1.0	1
Sodium (mg/L)	mg/L	2	05/30/19-09/23/19	O	5	5	2.0	2.0	2.0	2	0	2.0	2
Sulfate (mg/L)	mg/L	6	05/24/11-09/23/19	O	75	75	2.0	9.0	4.9	5	1.5	7.9	0
N+N (mg/L)	mg/L	<0.01	05/24/11-09/23/19	O	75	34	< 0.01	0.12					10
Phosphorus (mg/L)	mg/L	0.005	05/30/19-09/23/19	O	5	5	0.004	0.017	0.008	0.006	0.006	0.02	0.028
Total N Pers (mg/L)	mg/L	0.06	04/29/15-09/23/19	O	49	43	< 0	1.39	0.1	0.09	0.26	0.62	0
Aluminum (DIS) (mg/L)	mg/L	<0.009	05/30/19-09/23/19	O	5	2	< 0.009	0.051					0.14
Antimony (TRC) (mg/L)	mg/L	<0.0005	05/30/19-09/23/19	O	5	0	< 0.0005	< 0 .0005					0.003
Arsenic (TRC) (mg/L)	mg/L	<0.001	05/30/19-09/23/19	O	5	0	< 0.001	< 0 .001					0.003
Barium (TRC) (mg/L)	mg/L	0.091	05/30/19-09/23/19	O	5	5	0.073	0.102	0.087	0.086	0.013	0.113	0.108
Beryllium (TRC) (mg/L)	mg/L	<0.0008	05/30/19-09/23/19	O	5	0	< 0.0008	< 0 .0008					0.001
Cadmium (TRC) (mg/L)	mg/L	<0.00003	05/30/19-09/23/19	O	5	0	< 0	< .00003					0.0001
Chromium (TRC) (mg/L)	mg/L	<0.01	05/30/19-09/23/19	O	5	0	< 0.01	< 0 .01					0.01
Cobalt (TRC) (mg/L)	mg/L	<0.01	05/30/19-09/23/19	O	5	0	< 0.01	< 0 .01					0.01
Copper (TRC) (mg/L)	mg/L	<0.002	05/30/19-09/23/19	O	5	0	< 0.002	< 0 .002					0.002
Iron (TRC) (mg/L)	mg/L	0.13	05/30/19-09/23/19	O	5	5	0.09	0.55	0.17	0.12	0.19	0.55	0.68
Lead (TRC) (mg/L)	mg/L	<0.0003	05/30/19-09/23/19	O	5	0	< 0.0003	< 0 .0003					0.0005
Manganese (TRC) (mg/L)	mg/L	0.007	05/30/19-09/23/19	O	5	5	0.008	0.012	0.009	0.008	0.002	0.013	0.019
Mercury (TRC) (ug/L)	ug/L	<0.005	05/30/19-09/23/19	O	5	1	< 0.005	0.01					0.01
Molybdenum (TRC) (mg/L)	mg/L	<0.002	05/30/19-09/23/19	O	5	0	< 0.002	< 0 .002					0.005
Nickel (TRC) (mg/L)	mg/L	<0.001	05/30/19-09/23/19	O	5	1	< 0.001	< 0 .001					0.01
Selenium (TRC) (mg/L)	mg/L	<0.0002	05/30/19-09/23/19	O	5	0	< 0.0002	< 0 .0002					0.001
Silver (TRC) (mg/L)	mg/L	<0.0002	05/30/19-09/23/19	O	5	0	< 0.0002	< 0 .0002					0.0005
Strontium (TRC) (mg/L)	mg/L	0.127	05/30/19-09/23/19	O	5	5	0.095	0.139	0.122	0.126	0.017	0.156	0.14
Thallium (TRC) (mg/L)	mg/L	<0.0002	05/30/19-09/23/19	O	5	0	< 0.0002	< 0 .0002					0.0002
Uranium (TRC) (mg/L)	mg/L	0.0003	05/30/19-09/23/19	O	5	5	0.0002	0.0003	0.0003	0.0003	0	0.0003	0.008
Zinc (TRC) (mg/L)	mg/L	<0.004	05/30/19-09/23/19	O	5	2	< 0.002	< .004					0.01

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: November 15, 2019

SAMPLE NO BBC-1910-119 LAB NO: H19100567-008 STATION: SW-3

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	10.94	05/24/11-09/23/19	O	36	36	5.95	12.87	9.75	9.66	1.46	12.67	0
Field pH (s.u.)	s.u.	8.36	05/24/11-09/23/19	O	36	36	7.92	8.7	8.29	8.32	0.16	8.61	0
Field SC (umhos/cm)	umhos/cm	416	05/24/11-09/23/19	O	36	36	269.0	423.0	377.2	388.5	36.3	449.8	0
Staff Gauge (Feet)	Feet	0.28	08/25/11-09/23/19	O	19	19	0.11	0.96	0.33	0.43	0.23	0.79	0
Water Temp (Deg C)	Deg C	1.8	05/24/11-09/23/19	O	36	36	0.0	14.5	3.8	9.6	4.7	13.2	0
TDS (mg/L)	mg/L	219 D	05/24/11-09/23/19	O	34	34	152.0	255.0	219.5	223.5	20.1	259.7	0
TSS (mg/L)	mg/L	14 J	05/30/12-09/23/19	O	31	13	< 4	14.0					0
Alkalinity (mg/L)	mg/L	200	05/24/11-09/23/19	O	34	34	150.0	210.0	196.9	200	13.3	223.5	0
Calcium (mg/L)	mg/L	49	05/30/19-09/23/19	O	5	5	44.0	52.0	47.1	47	3.4	53.9	50
Chloride (mg/L)	mg/L	5	05/24/11-09/23/19	O	34	32	1.0	4.0	1.6	2	0.8	3.2	0
Fluoride (mg/L)	mg/L	0.2	05/24/11-09/23/19	O	34	34	0.1	0.2	0.2	0.2	0	0.2	4
Hardness (mg/L)	mg/L	219	05/24/11-09/23/19	O	34	34	139.0	234.0	207.4	215	19	245.4	0
Magnesium (mg/L)	mg/L	23	05/30/19-09/23/19	O	5	5	21.0	24.0	22.8	24	1.6	26.0	25
Potassium (mg/L)	mg/L	1	05/30/19-09/23/19	O	5	3	1.0	1.0	1.0	1	0	1.0	1
Sodium (mg/L)	mg/L	2	05/30/19-09/23/19	O	5	5	2.0	2.0	2.0	2	0	2.0	2
Sulfate (mg/L)	mg/L	22	05/24/11-09/23/19	O	34	34	5.0	26.0	15.9	17	4.7	25.3	0
N+N (mg/L)	mg/L	<0.01	05/24/11-09/23/19	O	34	28	0.01	0.12	0.04	0.05	0.03	0.1	10
Phosphorus (mg/L)	mg/L	0.006	05/30/19-09/23/19	O	5	5	0.006	0.018	0.01	0.009	0.005	0.02	0.02
Total N Pers (mg/L)	mg/L	0.13	06/24/15-09/23/19	O	21	20	< 0.04	0.6	0.13	0.12	0.11	0.35	0
Aluminum (DIS) (mg/L)	mg/L	<0.009	05/30/19-09/23/19	O	5	1	< 0.009	0.018					0.08
Antimony (TRC) (mg/L)	mg/L	<0.0005	05/30/19-09/23/19	O	5	0	< 0.0005	< 0 .0005					0.003
Arsenic (TRC) (mg/L)	mg/L	<0.001	05/30/19-09/23/19	O	5	0	< 0.001	< 0 .001					0.003
Barium (TRC) (mg/L)	mg/L	0.166	05/30/19-09/23/19	O	5	5	0.133	0.172	0.157	0.169	0.018	0.193	0.169
Beryllium (TRC) (mg/L)	mg/L	<0.0008	05/30/19-09/23/19	O	5	0	< 0.0008	< 0 .0008					0.001
Cadmium (TRC) (mg/L)	mg/L	<0.00003	05/30/19-09/23/19	O	5	0	< 0	< .00003					0.0001
Chromium (TRC) (mg/L)	mg/L	<0.01	05/30/19-09/23/19	O	5	0	< 0.01	< 0 .01					0.01
Cobalt (TRC) (mg/L)	mg/L	<0.01	05/30/19-09/23/19	O	5	0	< 0.01	< 0 .01					0.01
Copper (TRC) (mg/L)	mg/L	<0.002	05/30/19-09/23/19	O	5	0	< 0.002	< 0 .002					0.002
Iron (TRC) (mg/L)	mg/L	0.03 B	05/30/19-09/23/19	O	5	5	0.03	0.19	0.06	0.05	0.06	0.18	0.4
Lead (TRC) (mg/L)	mg/L	<0.0003	05/30/19-09/23/19	O	5	0	< 0.0003	< 0 .0003					0.0011
Manganese (TRC) (mg/L)	mg/L	<0.005	05/30/19-09/23/19	O	5	0	< 0.005	< 0 .005					0
Mercury (TRC) (ug/L)	ug/L	<0.005	05/30/19-09/23/19	O	5	0	< 0.005	< 0 .005					0.005
Molybdenum (TRC) (mg/L)	mg/L	<0.002	05/30/19-09/23/19	O	5	0	< 0.002	< 0 .002					0.005
Nickel (TRC) (mg/L)	mg/L	<0.001	05/30/19-09/23/19	O	5	0	< 0.001	< 0 .001					0.01
Selenium (TRC) (mg/L)	mg/L	<0.0002	05/30/19-09/23/19	O	5	0	< 0.0002	< 0 .0002					0.001
Silver (TRC) (mg/L)	mg/L	<0.0002	05/30/19-09/23/19	O	5	0	< 0.0002	< 0 .0002					0.0005
Strontium (TRC) (mg/L)	mg/L	0.131	05/30/19-09/23/19	O	5	5	0.1	0.126	0.116	0.122	0.011	0.138	0.122
Thallium (TRC) (mg/L)	mg/L	<0.0002	05/30/19-09/23/19	O	5	0	< 0.0002	< 0 .0002					0.0002
Uranium (TRC) (mg/L)	mg/L	0.0007	05/30/19-09/23/19	O	5	5	0.0006	0.0006	0.0006	0.0006	0	0.0006	0.008
Zinc (TRC) (mg/L)	mg/L	<0.004	05/30/19-09/23/19	O	5	2	< 0.002	0.009					0.01

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: November 15, 2019

SAMPLE NO BBC-1910-107 | LAB NO: H19100567-007 | STATION: SW-4

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	10.57	05/25/11-09/23/19	O	7	7	7.2	10.14	8.79	8.69	1.07	10.93	0
Field pH (s.u.)	s.u.	8.17	05/25/11-09/23/19	O	7	7	7.82	8.23	8.09	8.17	0.16	8.41	0
Field SC (umhos/cm)	umhos/cm	372	05/25/11-09/23/19	O	7	7	296.0	386.0	357.8	366	29.1	416.0	0
Flow (Cubic Ft Sec)	Cubic Ft Se	0.014	05/25/11-09/23/19	O	7	7	0.008	2.0	0.049	0.03	0.738	1.525	0
Water Temp (Deg C)	Deg C	1.6	05/25/11-09/23/19	O	7	7	1.0	14.1	8.2	10.5	4.5	17.2	0
TDS (mg/L)	mg/L	196 D	07/24/19-09/23/19	O	3	3	207.0	218.0	212.0	211	5.6	223.2	0
TSS (mg/L)	mg/L	<4	07/24/19-09/23/19	O	3	2	< 4	8.0	5.4	5	2.1	9.6	0
Alkalinity (mg/L)	mg/L	200	07/24/19-09/23/19	O	3	3	190.0	200.0	196.6	200	5.8	208.2	0
Calcium (mg/L)	mg/L	47	07/24/19-09/23/19	O	3	3	44.0	49.0	46.6	47	2.5	51.6	48.4
Chloride (mg/L)	mg/L	1	07/24/19-09/23/19	O	3	0	< 1	< 1					0
Fluoride (mg/L)	mg/L	0.1	07/24/19-09/23/19	O	3	3	0.1	0.1	0.1	0.1	0	0.1	4
Hardness (mg/L)	mg/L	198	07/24/19-09/23/19	O	3	3	189.0	206.0	197.2	197	8.5	214.2	0
Magnesium (mg/L)	mg/L	20	07/24/19-09/23/19	O	3	3	19.0	20.0	19.3	19	0.6	20.5	19.7
Potassium (mg/L)	mg/L	2	07/24/19-09/23/19	O	3	3	1.0	2.0	1.3	1	0.6	2.5	1.7
Sodium (mg/L)	mg/L	2	07/24/19-09/23/19	O	3	3	3.0	3.0	3.0	3	0	3.0	3
Sulfate (mg/L)	mg/L	10	07/24/19-09/23/19	O	3	3	8.0	10.0	9.0	9	1	11.0	0
N+N (mg/L)	mg/L	0.02	07/24/19-09/23/19	O	3	3	0.02	0.09	0.05	0.08	0.04	0.13	10
Phosphorus (mg/L)	mg/L	0.008	07/24/19-09/23/19	O	3	3	0.006	0.045	0.014	0.011	0.021	0.056	0.035
Total N Pers (mg/L)	mg/L	0.12	07/24/19-09/23/19	O	3	3	0.1	0.22	0.16	0.2	0.06	0.28	0
Aluminum (DIS) (mg/L)	mg/L	<0.009	07/24/19-09/23/19	O	3	0	< 0.009	< 0 .009					0.009
Antimony (TRC) (mg/L)	mg/L	<0.0005	07/24/19-09/23/19	O	3	0	< 0.0005	< 0 .0005					0.0005
Arsenic (TRC) (mg/L)	mg/L	<0.001	07/24/19-09/23/19	O	3	0	< 0.001	< 0 .001					0.001
Barium (TRC) (mg/L)	mg/L	0.13	07/24/19-09/23/19	O	3	3	0.15	0.15	0.15	0.15	0	0.15	0.151
Beryllium (TRC) (mg/L)	mg/L	<0.0008	07/24/19-09/23/19	O	3	0	< 0.0008	< 0 .0008					0.0008
Cadmium (TRC) (mg/L)	mg/L	<0.00003	07/24/19-09/23/19	O	3	0	< 0	< .00003					0
Chromium (TRC) (mg/L)	mg/L	<0.01	07/24/19-09/23/19	O	3	0	< 0.01	< 0 .01					0.01
Cobalt (TRC) (mg/L)	mg/L	<0.01	07/24/19-09/23/19	O	3	0	< 0.01	< 0 .01					0.01
Copper (TRC) (mg/L)	mg/L	<0.002	07/24/19-09/23/19	O	3	0	< 0.002	< 0 .002					0.002
Iron (TRC) (mg/L)	mg/L	0.06	07/24/19-09/23/19	O	3	3	0.09	0.39	0.19	0.19	0.15	0.49	0.33
Lead (TRC) (mg/L)	mg/L	<0.0003	07/24/19-09/23/19	O	3	0	< 0.0003	< 0 .0003					0.0003
Manganese (TRC) (mg/L)	mg/L	0.007	07/24/19-09/23/19	O	3	3	0.01	0.027	0.015	0.012	0.009	0.033	0.023
Mercury (TRC) (ug/L)	ug/L	<0.005	07/24/19-09/23/19	O	3	1	< 0.005	0.006					0.006
Molybdenum (TRC) (mg/L)	mg/L	<0.002	07/24/19-09/23/19	O	3	0	< 0.002	< 0 .002					0.002
Nickel (TRC) (mg/L)	mg/L	<0.001	07/24/19-09/23/19	O	3	0	< 0.001	< 0 .001					0.001
Selenium (TRC) (mg/L)	mg/L	<0.0002	07/24/19-09/23/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Silver (TRC) (mg/L)	mg/L	<0.0002	07/24/19-09/23/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Strontium (TRC) (mg/L)	mg/L	0.16	07/24/19-09/23/19	O	3	3	0.18	0.19	0.18	0.19	0	0.18	0.186
Thallium (TRC) (mg/L)	mg/L	<0.0002	07/24/19-09/23/19	O	3	0	< 0.0002	< 0 .0002					0.0002
Uranium (TRC) (mg/L)	mg/L	0.0007	07/24/19-09/23/19	O	3	3	0.0007	0.0008	0.0008	0.0008	0.0001	0.001	0.0008
Zinc (TRC) (mg/L)	mg/L	<0.004	07/24/19-09/23/19	O	3	0	< 0.002	< .02					0.02

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: November 15, 2019

SAMPLE NO BBC-1910-104 LAB NO: H19100567-005 STATION: USGS-SC1

PARAMETER	UNITS	VALUE	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	MEAN + 2 SD	UPPER 95th
DO (mg/L)	mg/L	11.34	03/24/14-09/23/19	O	65	65	7.12	16.55	11.11	11.12	1.62	14.35	0
Field pH (s.u.)	s.u.	8.62	03/24/14-09/23/19	O	64	64	6.67	8.67	7.99	8.18	0.45	8.89	0
Field SC (umhos/cm)	umhos/cm	343	03/24/14-09/23/19	O	65	65	137.0	408.0	322.3	342	49.7	421.7	0
Flow (Cubic Ft Sec)	Cubic Ft Se	16.12	05/05/14-09/23/19	O	43	43	0.0	111.32	8.57	18.8	28.24	65.05	0
Water Temp (Deg C)	Deg C	1.9	03/24/14-09/23/19	O	65	65	-1.0	13.1	0.4	2.9	4.1	8.6	0
TDS (mg/L)	mg/L	184 D	03/24/14-09/23/19	O	63	63	132.0	230.0	188.4	195	21	230.4	0
TSS (mg/L)	mg/L	<4	03/24/14-09/23/19	O	63	17	< 4	38.0					0
Alkalinity (mg/L)	mg/L	190	03/24/14-09/23/19	O	63	63	120.0	220.0	175.4	180	22.3	220.0	0
Calcium (mg/L)	mg/L	54	05/30/19-09/23/19	O	5	5	37.0	51.0	46.3	50	5.9	58.1	56
Chloride (mg/L)	mg/L	2	03/24/14-09/23/19	O	63	63	1.0	5.0	1.4	1	0.8	3.0	0
Fluoride (mg/L)	mg/L	<0.1	03/24/14-09/23/19	O	63	1	< 0.1	< 0 .1					4
Hardness (mg/L)	mg/L	189	03/24/14-09/23/19	O	63	62	< 7	214.0	167.4	183	30.6	228.6	0
Magnesium (mg/L)	mg/L	13	05/30/19-09/23/19	O	5	5	9.0	13.0	11.5	12	1.7	14.9	14
Potassium (mg/L)	mg/L	1	05/30/19-09/23/19	O	5	5	1.0	1.0	1.0	1	0	1.0	1
Sodium (mg/L)	mg/L	2	05/30/19-09/23/19	O	5	5	2.0	2.0	2.0	2	0	2.0	2
Sulfate (mg/L)	mg/L	7	03/24/14-09/23/19	O	63	63	3.0	8.0	5.7	6	1.4	8.5	0
N+N (mg/L)	mg/L	0.01	03/24/14-09/23/19	O	63	43	0.01	0.13	0.03	0.02	0.04	0.11	10
Phosphorus (mg/L)	mg/L	<0.003	05/30/19-09/23/19	O	5	4	< 0.003	0.018	0.006	0.004	0.006	0.018	0.02
Total N Pers (mg/L)	mg/L	0.06	04/29/15-09/23/19	O	49	39	< 0	1.1	0.08	0.07	0.16	0.4	0
Aluminum (DIS) (mg/L)	mg/L	<0.009	05/30/19-09/23/19	O	5	1	< 0.009	0.023					0.037
Antimony (TRC) (mg/L)	mg/L	<0.0005	05/30/19-09/23/19	O	5	0	< 0.0005	< 0 .0005					0.0005
Arsenic (TRC) (mg/L)	mg/L	<0.001	05/30/19-09/23/19	O	5	0	< 0.001	< 0 .001					0.001
Barium (TRC) (mg/L)	mg/L	0.065	05/30/19-09/23/19	O	5	5	0.061	0.08	0.071	0.074	0.007	0.085	0.078
Beryllium (TRC) (mg/L)	mg/L	<0.0008	05/30/19-09/23/19	O	5	0	< 0.0008	< 0 .0008					0.0008
Cadmium (TRC) (mg/L)	mg/L	<0.00003	05/30/19-09/23/19	O	5	0	< 0	< .00003					0
Chromium (TRC) (mg/L)	mg/L	<0.01	05/30/19-09/23/19	O	5	0	< 0.01	< 0 .01					0.01
Cobalt (TRC) (mg/L)	mg/L	<0.01	05/30/19-09/23/19	O	5	0	< 0.01	< 0 .01					0.01
Copper (TRC) (mg/L)	mg/L	<0.002	05/30/19-09/23/19	O	5	0	< 0.002	< 0 .002					0.002
Iron (TRC) (mg/L)	mg/L	0.1	05/30/19-09/23/19	O	5	5	0.1	0.7	0.1	0.1	0.3	0.7	0.61
Lead (TRC) (mg/L)	mg/L	<0.0003	05/30/19-09/23/19	O	5	1	< 0.0003	< 0 .0003					0.0003
Manganese (TRC) (mg/L)	mg/L	0.006	05/30/19-09/23/19	O	5	5	0.006	0.013	0.008	0.007	0.003	0.014	0.016
Mercury (TRC) (ug/L)	ug/L	<0.005	05/30/19-09/23/19	O	5	1	< 0.005	0.01					0.01
Molybdenum (TRC) (mg/L)	mg/L	<0.002	05/30/19-09/23/19	O	5	0	< 0.002	< 0 .002					0.002
Nickel (TRC) (mg/L)	mg/L	<0.001	05/30/19-09/23/19	O	5	1	< 0.001	0.002					0.002
Selenium (TRC) (mg/L)	mg/L	<0.0002	05/30/19-09/23/19	O	5	0	< 0.0002	< 0 .0002					0.0002
Silver (TRC) (mg/L)	mg/L	<0.0002	05/30/19-09/23/19	O	5	0	< 0.0002	< 0 .0002					0.0002
Strontium (TRC) (mg/L)	mg/L	0.146	05/30/19-09/23/19	O	5	5	0.119	0.154	0.142	0.15	0.014	0.17	0.15
Thallium (TRC) (mg/L)	mg/L	<0.0002	05/30/19-09/23/19	O	5	0	< 0.0002	< 0 .0002					0.0002
Uranium (TRC) (mg/L)	mg/L	0.0003	05/30/19-09/23/19	O	5	5	0.0003	0.0004	0.0003	0.0003	0.0001	0.0005	0.008
Zinc (TRC) (mg/L)	mg/L	<0.004	05/30/19-09/23/19	O	5	2	< 0.002	< .004					0.005

NOTES: All results are in mg/L unless otherwise noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; 50% of data set must be above lab detection limit before mean, median, SD and 95th percentile are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

APPENDIX 2

DATABASE

Analyses Summary Report

Site Name: Black Butte Mine 11/15/2019 1:37:49 PM

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DS-1	DS-10	DS-11	DS-2
Water	Sample Date	10/24/2019	10/24/2019	10/24/2019	10/24/2019	10/24/2019	10/24/2019
	Sample Time	4:10:00 PM	4:30:00 PM	12:10:00 PM	9:45:00 AM	10:10:00 AM	8:45:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	H19100567-009	H19100566-012	H19100566-004	z	z	z
	Sample Number	BBC-1910-128	BBC-1910-129	BBC-1910-117	BBC-1910-112	BBC-1910-113	BBC-1910-109
	Remarks						

Field Parameters	Multiple Units					
Depth To Water						
Dissolved Oxygen			10.16	9.16	9.89	7.13
Field pH			7.83	7.78	7.86	8.11
Field Specific Conductivity			426	393	452	366
Flow						
Flow			4.91	1.81	2.51	0.31
Staff Gauge						
Water Temperature			5	4.5	3.3	2.1
Physical Parameters	mg/L					
Total Dissolved Solids	<10	<10	229			
Total Suspended Solids	<4	<10	<10			
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	<4	<4	220			
Calcium (DIS)	<1	<1	58			
Chloride	<1	<1	<1			
Fluoride	<0.1	<0.1	0.1			
Hardness as CaCO3	2	<1	234			
Magnesium (DIS)	<1	<1	22			
Potassium (DIS)	<1	<1	<1			
Sodium (DIS)	<1	<1	2			
Sulfate	<1	<1	15			
Nutrients	mg/L					
Nitrate + Nitrite as N	<0.01	<0.01	0.19			
Phosphorus (TOT)	<0.003					
Total Nitrogen as N (Persulfate)	<0.04					
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009	<0.009	<0.009			
Antimony (DIS)		<0.0005	<0.0005			
Antimony (TRC)	<0.0005					
Arsenic (DIS)		<0.001	<0.001			
Arsenic (TRC)	<0.001					
Barium (DIS)		<0.003	0.052			

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DS-1	DS-10	DS-11	DS-2
Water	Sample Date	10/24/2019	10/24/2019	10/24/2019	10/24/2019	10/24/2019	10/24/2019
	Sample Time	4:10:00 PM	4:30:00 PM	12:10:00 PM	9:45:00 AM	10:10:00 AM	8:45:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	H19100567-009	H19100566-012	H19100566-004	z	z	z
	Sample Number	BBC-1910-128	BBC-1910-129	BBC-1910-117	BBC-1910-112	BBC-1910-113	BBC-1910-109
	Remarks						

Metals - Trace Constituents	Multiple Units					
Barium (TRC)	<0.003					
Beryllium (DIS)		<0.0008	<0.0008			
Beryllium (TRC)	<0.0008					
Cadmium (DIS)		<0.00003	<0.00003			
Cadmium (TRC)	<0.00003					
Chromium (DIS)		<0.01	<0.01			
Chromium (TRC)	<0.01					
Cobalt (DIS)		<0.01	<0.01			
Cobalt (TRC)	<0.01					
Copper (DIS)		<0.002	<0.002			
Copper (TRC)	<0.002					
Iron (DIS)		<0.02	<0.02			
Iron (TRC)	0.02					
Lead (DIS)		<0.0003	<0.0003			
Lead (TRC)	<0.0003					
Manganese (DIS)		<0.005	<0.005			
Manganese (TRC)	<0.005					
Mercury (DIS)		<0.005	<0.005			
Mercury (TRC)	<0.005					
Molybdenum (DIS)		<0.002	<0.002			
Molybdenum (TRC)	<0.002					
Nickel (DIS)		<0.001	<0.001			
Nickel (TRC)	<0.001					
Selenium (DIS)		<0.0002	<0.0002			
Selenium (TRC)	<0.0002					
Silver (DIS)		<0.0002	<0.0002			
Silver (TRC)	<0.0002					
Strontium (DIS)		<0.0002	0.111			
Strontium (TRC)	0.0004					
Thallium (DIS)		<0.0002	<0.0002			
Thallium (TRC)	<0.0002					
Uranium (DIS)		<0.0002	0.0006			
Uranium (TRC)	<0.0002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	DI-Blank	DI-Blank	DS-1	DS-10	DS-11	DS-2
Water	Sample Date	10/24/2019	10/24/2019	10/24/2019	10/24/2019	10/24/2019	10/24/2019
	Sample Time	4:10:00 PM	4:30:00 PM	12:10:00 PM	9:45:00 AM	10:10:00 AM	8:45:00 AM
	Lab	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	H19100567-009	H19100566-012	H19100566-004	z	z	z
	Sample Number	BBC-1910-128	BBC-1910-129	BBC-1910-117	BBC-1910-112	BBC-1910-113	BBC-1910-109
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Zinc (DIS)		<0.002	0.003			
	Zinc (TRC)	<0.004					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 11/15/2019 1:37:49 PM

Sample Type:	Station (Site)	DS-3	DS-4	DS-7	DS-8	DS-9	PW-7
Water	Sample Date	10/24/2019	10/24/2019	10/24/2019	10/24/2019	10/24/2019	10/23/2019
	Sample Time	2:10:00 PM	2:25:00 PM	3:15:00 PM	9:10:00 AM	9:25:00 AM	1:00:00 PM
	Lab	Energy Labs	Hydro	Hydro	Hydro	Hydro	Energy Labs
	Lab Number	H19100566-008	z	z	z	z	H19100566-013
	Sample Number	BBC-1910-122	BBC-1910-123	BBC-1910-125	BBC-1910-110	BBC-1910-111	BBC-1910-700
	Remarks						

Field Parameters	Multiple Units					
Depth To Water						Artesian
Dissolved Oxygen	8.8		9.53	9.62	10.3	0.04
Field pH	7.99		7.57	7.99	8.07	8.55
Field Specific Conductivity	54.2		265	463	375	554
Flow						
Flow	0.32	NF-Dry	6.27	2.28	3.82	
Staff Gauge						
Water Temperature	4.6		5.7	4.5	2.3	11.3
Physical Parameters	mg/L					
Total Dissolved Solids	49					309
Total Suspended Solids	<10					<10
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	24					290
Calcium (DIS)	7					11
Chloride	<1					5
Fluoride	<0.1					1.4
Hardness as CaCO3	25					93
Magnesium (DIS)	2					16
Potassium (DIS)	<1					8
Sodium (DIS)	1					95
Sulfate	2					13
Nutrients	mg/L					
Nitrate + Nitrite as N	0.37					<0.01
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	0.68					<0.009
Antimony (DIS)	<0.0005					<0.0005
Antimony (TRC)						
Arsenic (DIS)	<0.001					0.002
Arsenic (TRC)						
Barium (DIS)	0.282					0.233

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	DS-3	DS-4	DS-7	DS-8	DS-9	PW-7
Water	Sample Date	10/24/2019	10/24/2019	10/24/2019	10/24/2019	10/24/2019	10/23/2019
	Sample Time	2:10:00 PM	2:25:00 PM	3:15:00 PM	9:10:00 AM	9:25:00 AM	1:00:00 PM
	Lab	Energy Labs	Hydro	Hydro	Hydro	Hydro	Energy Labs
	Lab Number	H19100566-008	z	z	z	z	H19100566-013
	Sample Number	BBC-1910-122	BBC-1910-123	BBC-1910-125	BBC-1910-110	BBC-1910-111	BBC-1910-700
	Remarks						

Metals - Trace Constituents	Multiple Units					
Barium (TRC)						
Beryllium (DIS)	<0.0008					<0.0008
Beryllium (TRC)						
Cadmium (DIS)	<0.00003					<0.00003
Cadmium (TRC)						
Chromium (DIS)	<0.01					<0.01
Chromium (TRC)						
Cobalt (DIS)	<0.01					<0.01
Cobalt (TRC)						
Copper (DIS)	<0.002					<0.002
Copper (TRC)						
Iron (DIS)	0.35					1.14
Iron (TRC)						
Lead (DIS)	<0.0003					<0.0003
Lead (TRC)						
Manganese (DIS)	<0.005					0.09
Manganese (TRC)						
Mercury (DIS)	0.005					<0.005
Mercury (TRC)						
Molybdenum (DIS)	<0.002					<0.002
Molybdenum (TRC)						
Nickel (DIS)	0.003					<0.001
Nickel (TRC)						
Selenium (DIS)	<0.0002					<0.0002
Selenium (TRC)						
Silver (DIS)	<0.0002					<0.0002
Silver (TRC)						
Strontium (DIS)	0.0314					0.382
Strontium (TRC)						
Thallium (DIS)	<0.0002					<0.0002
Thallium (TRC)						
Uranium (DIS)	<0.0002					<0.0002
Uranium (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DS-3	DS-4	DS-7	DS-8	DS-9	PW-7
Water	Sample Date	10/24/2019	10/24/2019	10/24/2019	10/24/2019	10/24/2019	10/23/2019
	Sample Time	2:10:00 PM	2:25:00 PM	3:15:00 PM	9:10:00 AM	9:25:00 AM	1:00:00 PM
	Lab	Energy Labs	Hydro	Hydro	Hydro	Hydro	Energy Labs
	Lab Number	H19100566-008	z	z	z	z	H19100566-013
	Sample Number	BBC-1910-122	BBC-1910-123	BBC-1910-125	BBC-1910-110	BBC-1910-111	BBC-1910-700
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Zinc (DIS)	0.004					0.154
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 11/15/2019 1:37:49 PM

Sample Type:	Station (Site)	SP-10	SP-10	SP-11	SP-12	SP-3	SP-4
Water	Sample Date	10/24/2019	10/24/2019	10/23/2019	10/24/2019	10/24/2019	10/24/2019
	Sample Time	11:20:00 AM	11:45:00 AM	5:10:00 PM	1:30:00 PM	2:45:00 PM	1:50:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19100566-002	H19100566-003	H19100566-001	H19100566-006	H19100566-009	H19100566-007
	Sample Number	BBC-1910-115	BBC-1910-116	BBC-1910-106	BBC-1910-120	BBC-1910-124	BBC-1910-121
	Remarks		DUPLICATE				

Field Parameters	Multiple Units					
Depth To Water						
Dissolved Oxygen	7.95		6.99	4.29	10.27	9.66
Field pH	7.7		8.08	7.78	7.62	7.78
Field Specific Conductivity	421		194	450	198	429
Flow						
Flow	0.06		NM	NF-Dry	0.18	4.35
Staff Gauge						
Water Temperature	6.07		6.5	6.2	3.6	7
Physical Parameters	mg/L					
Total Dissolved Solids	225	219	114	243	123	231
Total Suspended Solids	300 J	240	<10	26 J	<10	<10
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	220	220	94	210	96	200
Calcium (DIS)	62	57	26	56	29	49
Chloride	<1	<1	<1	9	<1	<1
Fluoride	0.1	0.1	0.2	0.2	0.1	0.2
Hardness as CaCO3	240	230	98	240	98	227
Magnesium (DIS)	20	21	8	24	6	25
Potassium (DIS)	1	1	1	1	1	2
Sodium (DIS)	2	2	4	2	3	2
Sulfate	15	15	7	20	6	30
Nutrients	mg/L					
Nitrate + Nitrite as N	0.17	0.15	0.23	0.23	0.28	0.27
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009	<0.009	0.047	0.026	0.114	<0.009
Antimony (DIS)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Antimony (TRC)						
Arsenic (DIS)	<0.001	<0.001	0.006	<0.001	0.001	<0.001
Arsenic (TRC)						
Barium (DIS)	0.055	0.054	0.304	0.19	0.312	0.117

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	SP-10	SP-10	SP-11	SP-12	SP-3	SP-4
Water	Sample Date	10/24/2019	10/24/2019	10/23/2019	10/24/2019	10/24/2019	10/24/2019
	Sample Time	11:20:00 AM	11:45:00 AM	5:10:00 PM	1:30:00 PM	2:45:00 PM	1:50:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19100566-002	H19100566-003	H19100566-001	H19100566-006	H19100566-009	H19100566-007
	Sample Number	BBC-1910-115	BBC-1910-116	BBC-1910-106	BBC-1910-120	BBC-1910-124	BBC-1910-121
	Remarks		DUPLICATE				
Metals - Trace Constituents	Multiple Units						
Barium (TRC)							
Beryllium (DIS)		<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Beryllium (TRC)							
Cadmium (DIS)		<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Cadmium (TRC)							
Chromium (DIS)		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium (TRC)							
Cobalt (DIS)		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt (TRC)							
Copper (DIS)		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Copper (TRC)							
Iron (DIS)		0.08	0.08	0.03	0.06	0.07	0.03
Iron (TRC)							
Lead (DIS)		<0.0003	<0.0003	<0.0003	0.0004	<0.0003	<0.0003
Lead (TRC)							
Manganese (DIS)		0.113	0.103	<0.005	<0.005	<0.005	<0.005
Manganese (TRC)							
Mercury (DIS)		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Mercury (TRC)							
Molybdenum (DIS)		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Molybdenum (TRC)							
Nickel (DIS)		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Nickel (TRC)							
Selenium (DIS)		0.0003	0.0003	<0.0002	<0.0002	<0.0002	0.0003
Selenium (TRC)							
Silver (DIS)		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Silver (TRC)							
Strontium (DIS)		0.12	0.119	0.108	0.115	0.0848	0.0722
Strontium (TRC)							
Thallium (DIS)		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003
Thallium (TRC)							
Uranium (DIS)		0.0008	0.0008	0.0003	0.0006	0.0002	0.0005
Uranium (TRC)							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-10	SP-10	SP-11	SP-12	SP-3	SP-4
Water	Sample Date	10/24/2019	10/24/2019	10/23/2019	10/24/2019	10/24/2019	10/24/2019
	Sample Time	11:20:00 AM	11:45:00 AM	5:10:00 PM	1:30:00 PM	2:45:00 PM	1:50:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19100566-002	H19100566-003	H19100566-001	H19100566-006	H19100566-009	H19100566-007
	Sample Number	BBC-1910-115	BBC-1910-116	BBC-1910-106	BBC-1910-120	BBC-1910-124	BBC-1910-121
	Remarks		DUPLICATE				
Metals - Trace Constituents	Multiple Units						
	Zinc (DIS)	<0.002	<0.002	0.006	<0.002	<0.002	0.003
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 11/15/2019 1:37:49 PM

Sample Type:	Station (Site)	SP-5	SP-6	SP-7	SW-1	SW-14	SW-17
Water	Sample Date	10/24/2019	10/24/2019	10/24/2019	10/23/2019	10/23/2019	10/23/2019
	Sample Time	12:40:00 PM	3:30:00 PM	3:50:00 PM	2:15:00 PM	3:15:00 PM	2:50:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19100566-005	H19100566-010	H19100566-011	H19100567-001	H19100567-003	H19100567-002
	Sample Number	BBC-1910-118	BBC-1910-126	BBC-1910-127	BBC-1910-100	BBC-1910-102	BBC-1910-101
	Remarks						
Field Parameters	Multiple Units						
Depth To Water							
Dissolved Oxygen		8.37	9.43	2.03	11.7	12.64	11.46
Field pH		7.81	7.67	7.39	8.63	8.51	8.39
Field Specific Conductivity		389	292	334	306	384	488.5
Flow					26.85	1.28	0.24
Flow		NF	0.93	13.02			
Staff Gauge					0.92		
Water Temperature		3.4	6.8	7.2	2.2	5	3.8
Physical Parameters	mg/L						
Total Dissolved Solids		212	165	185	164 D	209 D	280 D
Total Suspended Solids		20 J	<10	<10	<4	<4	<4
Major Constituents - Commons Ions	mg/L						
Alkalinity as CaCO3		210	150	170	160	210	210
Calcium (DIS)		56	37	44	46	52	61
Chloride		<1	<1	2	2	2	13
Fluoride		0.1	0.2	0.3	<0.1	0.2	0.2
Hardness as CaCO3		218	149	169	165	215	259
Magnesium (DIS)		19	14	14	12	21	26
Potassium (DIS)		1	1	3	1	1	1
Sodium (DIS)		2	2	5	2	2	3
Sulfate		9	10	10	7	11	39
Nutrients	mg/L						
Nitrate + Nitrite as N		<0.01	0.41	0.32	<0.01	0.02	0.03
Phosphorus (TOT)					0.005	0.008	0.01
Total Nitrogen as N (Persulfate)					0.06	0.14	0.15
Metals - Trace Constituents	Multiple Units						
Aluminum (DIS)		<0.009	<0.009	<0.009	<0.009	<0.009	<0.009
Antimony (DIS)		<0.0005	<0.0005	<0.0005			
Antimony (TRC)					<0.0005	<0.0005	<0.0005
Arsenic (DIS)		<0.001	<0.001	0.004			
Arsenic (TRC)					<0.001	<0.001	<0.001
Barium (DIS)		0.054	0.216	0.118			

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- J: The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-5	SP-6	SP-7	SW-1	SW-14	SW-17
Water	Sample Date	10/24/2019	10/24/2019	10/24/2019	10/23/2019	10/23/2019	10/23/2019
	Sample Time	12:40:00 PM	3:30:00 PM	3:50:00 PM	2:15:00 PM	3:15:00 PM	2:50:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19100566-005	H19100566-010	H19100566-011	H19100567-001	H19100567-003	H19100567-002
	Sample Number	BBC-1910-118	BBC-1910-126	BBC-1910-127	BBC-1910-100	BBC-1910-102	BBC-1910-101
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Barium (TRC)				0.1	0.109	0.172
	Beryllium (DIS)	<0.0008	<0.0008	<0.0008			
	Beryllium (TRC)				<0.0008	<0.0008	<0.0008
	Cadmium (DIS)	<0.00003	<0.00003	<0.00003			
	Cadmium (TRC)				<0.00003	<0.00003	<0.00003
	Chromium (DIS)	<0.01	<0.01	<0.01			
	Chromium (TRC)				<0.01	<0.01	<0.01
	Cobalt (DIS)	<0.01	<0.01	<0.01			
	Cobalt (TRC)				<0.01	<0.01	<0.01
	Copper (DIS)	<0.002	<0.002	<0.002			
	Copper (TRC)				<0.002	<0.002	<0.002
	Iron (DIS)	0.03	0.02	0.03			
	Iron (TRC)				0.14	0.11	0.35
	Lead (DIS)	<0.0003	<0.0003	<0.0003			
	Lead (TRC)				<0.0003	<0.0003	<0.0003
	Manganese (DIS)	0.016	<0.005	<0.005			
	Manganese (TRC)				0.012	<0.005	0.031
	Mercury (DIS)	<0.005	<0.005	<0.005			
	Mercury (TRC)				<0.005	<0.005	<0.005
	Molybdenum (DIS)	<0.002	<0.002	<0.002			
	Molybdenum (TRC)				<0.002	<0.002	<0.002
	Nickel (DIS)	<0.001	<0.001	<0.001			
	Nickel (TRC)				<0.001	<0.001	<0.001
	Selenium (DIS)	<0.0002	<0.0002	0.0003			
	Selenium (TRC)				<0.0002	<0.0002	<0.0002
	Silver (DIS)	<0.0002	<0.0002	<0.0002			
	Silver (TRC)				<0.0002	<0.0002	<0.0002
	Strontium (DIS)	0.136	0.0829	0.175			
	Strontium (TRC)				0.127	0.122	0.154
	Thallium (DIS)	<0.0002	0.0006	0.0012			
	Thallium (TRC)				<0.0002	<0.0002	<0.0002
	Uranium (DIS)	0.0007	0.0004	0.0009			
	Uranium (TRC)				0.0003	0.0005	0.0006

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-5	SP-6	SP-7	SW-1	SW-14	SW-17
Water	Sample Date	10/24/2019	10/24/2019	10/24/2019	10/23/2019	10/23/2019	10/23/2019
	Sample Time	12:40:00 PM	3:30:00 PM	3:50:00 PM	2:15:00 PM	3:15:00 PM	2:50:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	H19100566-005	H19100566-010	H19100566-011	H19100567-001	H19100567-003	H19100567-002
	Sample Number	BBC-1910-118	BBC-1910-126	BBC-1910-127	BBC-1910-100	BBC-1910-102	BBC-1910-101
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Zinc (DIS)	<0.002	<0.002	<0.002			
	Zinc (TRC)				<0.004	<0.004	<0.004

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 11/15/2019 1:37:49 PM

Sample Type:	Station (Site)	SW-18	SW-19	SW-2	SW-3	SW-4	USGS-SC1
Water	Sample Date	10/23/2019	10/24/2019	10/23/2019	10/24/2019	10/23/2019	10/23/2019
	Sample Time	5:45:00 PM	11:00:00 AM	3:50:00 PM	1:20:00 PM	5:30:00 PM	4:25:00 PM
	Lab	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	z	z	H19100567-004	H19100567-008	H19100567-007	H19100567-005
	Sample Number	BBC-1910-108	BBC-1910-114	BBC-1910-103	BBC-1910-119	BBC-1910-107	BBC-1910-104
	Remarks						

Field Parameters	Multiple Units					
Depth To Water						
Dissolved Oxygen		11.33	11.74	10.94	10.57	11.34
Field pH		8.39	8.67	8.36	8.17	8.62
Field Specific Conductivity		405	298	416	372	343
Flow	NF-Dry	0.1	21.99	NM	0.014	16.12
Flow						
Staff Gauge			0.4	0.28		
Water Temperature		2	2	1.8	1.6	1.9
Physical Parameters	mg/L					
Total Dissolved Solids			160 D	219 D	196 D	184 D
Total Suspended Solids			<4	14 J	<4	<4
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3			160	200	200	190
Calcium (DIS)			47	49	47	54
Chloride			1	5	1	2
Fluoride			<0.1	0.2	0.1	<0.1
Hardness as CaCO3			164	219	198	189
Magnesium (DIS)			11	23	20	13
Potassium (DIS)			1	1	2	1
Sodium (DIS)			2	2	2	2
Sulfate			6	22	10	7
Nutrients	mg/L					
Nitrate + Nitrite as N			<0.01	<0.01	0.02	0.01
Phosphorus (TOT)			0.005	0.006	0.008	<0.003
Total Nitrogen as N (Persulfate)			0.06	0.13	0.12	0.06
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)			<0.009	<0.009	<0.009	<0.009
Antimony (DIS)						
Antimony (TRC)			<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (DIS)						
Arsenic (TRC)			<0.001	<0.001	<0.001	<0.001
Barium (DIS)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- J: The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-18	SW-19	SW-2	SW-3	SW-4	USGS-SC1
Water	Sample Date	10/23/2019	10/24/2019	10/23/2019	10/24/2019	10/23/2019	10/23/2019
	Sample Time	5:45:00 PM	11:00:00 AM	3:50:00 PM	1:20:00 PM	5:30:00 PM	4:25:00 PM
	Lab	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	z	z	H19100567-004	H19100567-008	H19100567-007	H19100567-005
	Sample Number	BBC-1910-108	BBC-1910-114	BBC-1910-103	BBC-1910-119	BBC-1910-107	BBC-1910-104
	Remarks						
	Metals - Trace Constituents Multiple Units						
	Barium (TRC)			0.091	0.166	0.13	0.065
	Beryllium (DIS)						
	Beryllium (TRC)			<0.0008	<0.0008	<0.0008	<0.0008
	Cadmium (DIS)						
	Cadmium (TRC)			<0.00003	<0.00003	<0.00003	<0.00003
	Chromium (DIS)						
	Chromium (TRC)			<0.01	<0.01	<0.01	<0.01
	Cobalt (DIS)						
	Cobalt (TRC)			<0.01	<0.01	<0.01	<0.01
	Copper (DIS)						
	Copper (TRC)			<0.002	<0.002	<0.002	<0.002
	Iron (DIS)						
	Iron (TRC)			0.13	0.03 B	0.06	0.1
	Lead (DIS)						
	Lead (TRC)			<0.0003	<0.0003	<0.0003	<0.0003
	Manganese (DIS)						
	Manganese (TRC)			0.007	<0.005	0.007	0.006
	Mercury (DIS)						
	Mercury (TRC)			<0.005	<0.005	<0.005	<0.005
	Molybdenum (DIS)						
	Molybdenum (TRC)			<0.002	<0.002	<0.002	<0.002
	Nickel (DIS)						
	Nickel (TRC)			<0.001	<0.001	<0.001	<0.001
	Selenium (DIS)						
	Selenium (TRC)			<0.0002	<0.0002	<0.0002	<0.0002
	Silver (DIS)						
	Silver (TRC)			<0.0002	<0.0002	<0.0002	<0.0002
	Strontium (DIS)						
	Strontium (TRC)			0.127	0.131	0.16	0.146
	Thallium (DIS)						
	Thallium (TRC)			<0.0002	<0.0002	<0.0002	<0.0002
	Uranium (DIS)						
	Uranium (TRC)			0.0003	0.0007	0.0007	0.0003

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-18	SW-19	SW-2	SW-3	SW-4	USGS-SC1
Water	Sample Date	10/23/2019	10/24/2019	10/23/2019	10/24/2019	10/23/2019	10/23/2019
	Sample Time	5:45:00 PM	11:00:00 AM	3:50:00 PM	1:20:00 PM	5:30:00 PM	4:25:00 PM
	Lab	Hydro	Hydro	Energy Labs	Energy Labs	Energy Labs	Energy Labs
	Lab Number	z	z	H19100567-004	H19100567-008	H19100567-007	H19100567-005
	Sample Number	BBC-1910-108	BBC-1910-114	BBC-1910-103	BBC-1910-119	BBC-1910-107	BBC-1910-104
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Zinc (DIS)						
	Zinc (TRC)			<0.004	<0.004	<0.004	<0.004

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	USGS-SC1	
Water	Sample Date	10/23/2019	
	Sample Time	4:50:00 PM	
	Lab	Energy Labs	
	Lab Number	H19100567-006	
	Sample Number	BBC-1910-105	
	Remarks	DUPLICATE	DUPLICATE

Field Parameters	Multiple Units
Depth To Water	
Dissolved Oxygen	
Field pH	
Field Specific Conductivity	
Flow	
Flow	
Staff Gauge	
Water Temperature	
Physical Parameters	mg/L
Total Dissolved Solids	181 D
Total Suspended Solids	<4
Major Constituents - Commons Ions	mg/L
Alkalinity as CaCO3	180
Calcium (DIS)	54
Chloride	2
Fluoride	<0.1
Hardness as CaCO3	187
Magnesium (DIS)	13
Potassium (DIS)	1
Sodium (DIS)	2
Sulfate	7
Nutrients	mg/L
Nitrate + Nitrite as N	0.02
Phosphorus (TOT)	0.003
Total Nitrogen as N (Persulfate)	0.06
Metals - Trace Constituents	Multiple Units
Aluminum (DIS)	<0.009
Antimony (DIS)	
Antimony (TRC)	<0.0005
Arsenic (DIS)	
Arsenic (TRC)	<0.001
Barium (DIS)	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	USGS-SC1	
Water	Sample Date	10/23/2019	
	Sample Time	4:50:00 PM	
	Lab	Energy Labs	
	Lab Number	H19100567-006	
	Sample Number	BBC-1910-105	
	Remarks	DUPLICATE	DUPLICATE

Metals - Trace Constituents	Multiple Units
Barium (TRC)	0.066
Beryllium (DIS)	
Beryllium (TRC)	<0.0008
Cadmium (DIS)	
Cadmium (TRC)	<0.00003
Chromium (DIS)	
Chromium (TRC)	<0.01
Cobalt (DIS)	
Cobalt (TRC)	<0.01
Copper (DIS)	
Copper (TRC)	<0.002
Iron (DIS)	
Iron (TRC)	0.1
Lead (DIS)	
Lead (TRC)	<0.0003
Manganese (DIS)	
Manganese (TRC)	0.007
Mercury (DIS)	
Mercury (TRC)	<0.005
Molybdenum (DIS)	
Molybdenum (TRC)	<0.002
Nickel (DIS)	
Nickel (TRC)	<0.001
Selenium (DIS)	
Selenium (TRC)	<0.0002
Silver (DIS)	
Silver (TRC)	<0.0002
Strontium (DIS)	
Strontium (TRC)	0.144
Thallium (DIS)	
Thallium (TRC)	<0.0002
Uranium (DIS)	
Uranium (TRC)	0.0004

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	USGS-SC1	
Water	Sample Date	10/23/2019	
	Sample Time	4:50:00 PM	
	Lab	Energy Labs	
	Lab Number	H19100567-006	
	Sample Number	BBC-1910-105	
	Remarks	DUPLICATE	DUPLICATE

Metals - Trace Constituents	Multiple Units
Zinc (DIS)	
Zinc (TRC)	<0.004

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

QUALITY CONTROL / QUALITY ASSURANCE
DATA VERIFICATION REPORT

BLACK BUTTE COPPER
WATER RESOURCE MONITORING

NOVEMBER 2019

Prepared by
Hydrometrics, Inc.
3020 Bozeman Avenue
Helena, MT 59601

DECEMBER 2019

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APPENDIX 2: DATABASE SUMMARY REPORT

GLOSSARY OF TERMS

CCB ..... Continuing Calibration Blank

CCV ..... Continuing Calibration Verification

CLP ..... Contract Laboratory Program

CRDL..... Contract Required Detection Limit

DIé é é é é Deionized Water

FAA ..... Flame Atomic Absorption

GFAA..... Graphite Furnace Atomic Absorption

HGAA ..... Hydride Generation Atomic Absorption

ICB..... Initial Calibration Blank

ICP ..... Inductively Coupled Plasma

ICV ..... Initial Calibration Verification

IDL..... Instrument Detection Limit

LCS ..... Laboratory Control Sample

MSA..... Method of Standard Additions

PB ..... Preparation Blank

PRDL ..... Project Required Detection Limit

QAPP ..... Quality Assurance Project Plan

QC..... Quality Control

RPD..... Relative Percent Difference

RSD..... Relative Standard Deviation

SOW..... Statement of Work

TDS..... Total Dissolved Solids

DATA VALIDATION REPORT

1. INTRODUCTION

This validation applies to 114 samples collected for the Black Butte Tintina surface water and groundwater monitoring program. All sampling occurred in November 2019. All samples were submitted to Energy Laboratories in Helena, Montana and were assigned Laboratory IDs: H19110278, H19110279, H19110301, and H19110302. The total number of samples included: 39 groundwater and surface water samples including 3 field duplicates, and 4 field deionized (DI and Rinsate) blanks and 68 field site observations.

- Validation procedures used are generally consistent with:
  (Check all that apply)
  _X_ EPA CLP National Functional Guidelines for Inorganics Data Review
  _X_ EPA CLP National Functional Guidelines for Organic Data Review
  _X__ Montana Department of Environmental Quality, Data Validation Guidelines for Evaluating Analytical Data, Hydrometrics, September 2010

2. DELIVERABLES

- All laboratory document deliverables were present as specified in the CLP-Statement of Work and/or the project contract
  _X_ Yes
  ___No

- All documentation of field procedures was provided as required
  _X_ Yes
  ___No

3. FIELD QUALITY CONTROL SAMPLES

- Field blanks
  Please note that the highest blank value associated with any particular analyte is the blank value used for the flagging process.
  DI, trip, rinsate, or any other field blanks have been carried out at the proper frequency
  _X_ Yes
  ___No

  Reported results on the field blanks are less than the contract required detection limits (CRDL) or the project required detection limits (PRDL) if project detection limits have been specified
  ____Yes
  _X_ No ï see following table

Date	Parameter	Sample Result (mg/L)	Reporting Limit (mg/L)	Number of Flags
11/13/19	Hardness	2	<1	0
	Iron (DIS)	0.03	<0.02	16
	Strontium (DIS)	0.0004	<0.0002	0

B ï Field Blank exceeded QA/QC comparison control limits.

  Field duplicates have been collected at the proper frequency
  _X_ Yes
  ___No

  Field duplicate relative percent differences (RPDs) were within the required control limits (25 percent or less for water matrix and 50 percent or less for soil matrix)

___Yes
_X_ No ï see following table

Date	Site Code	Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	% RPD	Number of Flags
11/13/19	MW-20	Total Suspended Solids	119	206	54	42

J ï Duplicate exceeded QA/QC comparison control limits.

4. LABORATORY PROCEDURES

- Laboratory Case Narrative Notes any non conformance issues with the analytical data
  ___Yes
  ___No
  _X_NA

- Samples were received by the laboratory at the proper temperature
  _X_Yes
  ___No

- Holding times met
  _X_Yes
  ___No

- Consistency with project requirements
  _X_Yes
  ___No

- Sample Conditions met at Check-in
  _X_Yes
  ___No

- Reporting units appropriate for the associated sample matrix and methods of analysis
  _X_Yes
  ___No

- Project specified methods were used
  _X_Yesï see following list of methods used
  ___No

  NOTES: It should be noted that parameters were analyzed using different methods than requested; however, all methods used by the laboratory are comparable. The following methods were used during analyses: A2540D, A2540C, A2320B, E300.0, A4500-F C, A2340B, E353.2, A4500-N C, E365.1, E200.8, and E200.7.

- Detection Limits met project required detection limits (PRDL)
  _X_Yesï see following notes
  ___No

  NOTES: It should be noted that total dissolved solids had a reporting limit increases due to sample matrix interference (D). TDS had a limit of 10 mg/l used not the requested 4 mg/l. Strontium had a varying reporting limit as high as 0.005 mg/L not the requested 0.002 mg/L. In addition, a reporting limit of 0.01 mg/l was used for nitrate + nitrite as n as replacement of the 0.003 mg/l requested. Finally, strontium values were flagged with an L by the laboratory due to using the lowest available reporting limit for the method used during analyses.

5. INITIAL OR CONTINUING CALIBRATION VERIFICATION RESULTS

- Initial or Continuing Calibration Verification samples were within acceptable limits
  _X_ Yes
  ___ No

6. LABORATORY BLANKS

- **PREPARATION/METHOD BLANKS**

  Preparation/Method blanks were prepared and analyzed at the required frequency
  _X_ Yes
  ___ No

  All analytes in the preparation blank were less than the CRDL (or PRDL if a project detection limit has been specified)
  _X_ Yes
  ___ No

7. MATRIX SPIKE /MATRIX SPIKE DUPLICATES (MS/MSD)

- Matrix spike samples were analyzed at the proper frequency
  _X_ Yes
  ___ No

- Matrix spike recoveries were within control limits
  ___ Yes
  _X_ No ï see following table

QC Sample ID	Parameter	% REC	Lab Flag	Lab Advisory Limits (% REC)
H19110163-005DMS	Total Phosphorus	117	S	90-110
H19110284-001AMS	Nitrate + Nitrite as N	112	S	90-110

S ï Spike recovery outside of recovery limits

- Matrix spike RPDôs were within control limits
  _X_ Yes
  ___ No

- Matrix spike duplicate samples were analyzed at the proper frequency
  _X_ Yes
  ___ No

- Matrix spike duplicate RPDôs were within control limits
  ___ Yes
  _X_ No ï see following table

QC Sample ID	Parameter	% RPD	Lab Flag	Lab Advisory Limits (% RPD)
H19110301-011ADUP	Total Suspended Solids	5.4	R	5

R ï Percent Recovery Difference outside of recovery limits

- Matrix spike duplicate recoveries were within the laboratory specified control limits.
  ___ Yes
  _X_ No ï see following table

QC Sample ID	Parameter	% REC	Lab Flag	Lab Advisory Limits (% REC)
H19110284-001AMSD	Nitrate + Nitrite as N	111	S	90-110

S ï Spike recovery outside of recovery limits

8. LABORATORY CONTROL SAMPLES

- LCS Samples

Laboratory Control Samples used the correct matrix and concentrations
___Yes
___No
_X_NA

Laboratory Control Samples were prepared and analyzed at the required frequency
___Yes
___No
_X_NA

All analytes in the laboratory control samples were less than the control limits specified
_X_Yes
___No

9. DATA QUALITY OBJECTIVES

- Project data quality objectives (DQOs) met

_X_Yes
___No

Accuracy
Accuracy for this project is the degree of agreement between an analytical measurement and a reference accepted as a true value. The accuracy of a measurement system can be affected by errors introduced by field contamination, sample preservation, sample handling, sample preparation and analytical techniques. Analysis of MS/MSD samples, laboratory control spikes (LCS) or blank spikes, surrogate standards and method blanks are typically used to calculate the percent recovery for evaluating accuracy. Accuracy for this sampling event was 97 percent.

Precision
Precision for this project is the degree of mutual agreement between individual measurements of the same property under similar conditions. Combined field and laboratory precision is evaluated by collecting and analyzing field duplicate and then calculating the variance between the samples, typically as a relative percent difference (RPD). Laboratory analytical precision is evaluated by analyzing matrix spike/matrix spike duplicate samples and using the results to calculate an RPD. The combined precision was 98 percent for this sampling event for both laboratory and field.

Representativeness
Representativeness for this project is the degree to which sample data accurately and precisely represent the characteristics of a population, and variations in a parameter at a sampling point or an environmental condition that they are intended to represent. Typically representative data will be obtained through careful selection of sampling locations and analytical parameters; proper collection and handling of samples and through use and consistent application of

established field and laboratory procedures. Evaluation of field and laboratory blank samples for presence of contaminants can be useful in evaluating representativeness of sample results. Both laboratory and field representativeness for this sampling event was 100 percent.

Completeness

The target completeness for this project is the percent of the measurements valid (not rejected). Valid data are obtained when samples are collected and analyzed in accordance with quality control procedures outlined in the SAP, and when none of the QC criteria that affect data usability are exceeded. Once data validation is complete the number of useable sample results is divided by the total number of sample results planned for the investigation to determine the percent completeness. Completeness for this sampling event was 100 percent.

Comparability

Comparability is the expression of the confidence with which one data set can be compared with another. Comparability of data is achieved by consistently following standard field and laboratory procedures and by using standard measurement units in reporting analytical data. This criterion was met.

REFERENCES

Montana Department of Environmental Quality, Data Validation Guidelines for Evaluating Analytical Data (Updated August 5, 2010)

EPA, 2017a. National Functional Guidelines for Organic Superfund Methods Data Review. EPA-540-R-2017-002. Office of Superfund Remediation and Technology Innovation. January 2017.

EPA, 2017b. National Functional Guidelines for Inorganic Superfund Methods Data Review. EPA-540-R-2017-001. Office of Superfund Remediation and Technology Innovation. January 2017.

Hem, J.D., 1992. Study and Interpretation of the Chemical Characteristics of Natural Water, 3rd edition. US Geological Survey Water Supply Paper 2254.

APPENDIX 1

TABLES

TABLE 1.

DATA VALIDATION CODES AND DEFINITIONS

CODE	DEFINITION
J	-The associated numerical value is an estimated quantity because quality control criteria were not met.
B	- Blank contamination. Indicates possible high bias and / or false positive. The associated value is an estimate.
R	- Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis is necessary for verification.
A	- Anomalous data. No apparent explanation for discrepancy in data. (Not an EPA code.)

Table 2. Summary of Flagged Data

StationName	Sample Date	Field Sample Id	Lab Name	Lab Sample Id	Parameter Name	Sample Result	Reporting Units	Validation Flag	Exceedance Type
SW-1	11/11/2019	BBC-1911-100	Energy Labs	H19110278-001	Total Suspended Solids	<4	mg/L	J	Duplicate Exceedance 54% rpd
SW-2	11/11/2019	BBC-1911-101	Energy Labs	H19110278-002	Total Suspended Solids	<4	mg/L	J	Duplicate Exceedance 54% rpd
USGS-SC1	11/11/2019	BBC-1911-102	Energy Labs	H19110278-003	Total Suspended Solids	10	mg/L	J	Duplicate Exceedance 54% rpd
SW-14	11/11/2019	BBC-1911-103	Energy Labs	H19110278-004	Total Suspended Solids	10	mg/L	J	Duplicate Exceedance 54% rpd
SW-11	11/11/2019	BBC-1911-106	Energy Labs	H19110278-005	Total Suspended Solids	<4	mg/L	J	Duplicate Exceedance 54% rpd
SW-3	11/11/2019	BBC-1911-108	Energy Labs	H19110278-006	Total Suspended Solids	<4	mg/L	J	Duplicate Exceedance 54% rpd
SW-17	11/11/2019	BBC-1911-109	Energy Labs	H19110278-007	Total Suspended Solids	<4	mg/L	J	Duplicate Exceedance 54% rpd
SW-17	11/11/2019	BBC-1911-110	Energy Labs	H19110278-008	Total Suspended Solids	<4	mg/L	J	Duplicate Exceedance 54% rpd
SW-6	11/12/2019	BBC-1911-115	Energy Labs	H19110278-010	Total Suspended Solids	11	mg/L	J	Duplicate Exceedance 54% rpd
DS-1	11/12/2019	BBC-1911-118	Energy Labs	H19110279-001	Total Suspended Solids	311	mg/L	J	Duplicate Exceedance 54% rpd
SP-10	11/12/2019	BBC-1911-125	Energy Labs	H19110279-002	Total Suspended Solids	58	mg/L	J	Duplicate Exceedance 54% rpd
SP-3	11/12/2019	BBC-1911-126	Energy Labs	H19110279-003	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance 54% rpd
SP-6	11/12/2019	BBC-1911-129	Energy Labs	H19110279-004	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance 54% rpd
SP-4	11/13/2019	BBC-1911-130	Energy Labs	H19110279-006	Iron (DIS)	0.06	mg/L	B	Blank Exceedance
SP-4	11/13/2019	BBC-1911-130	Energy Labs	H19110279-006	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance 54% rpd
SP-7	11/13/2019	BBC-1911-131	Energy Labs	H19110279-007	Iron (DIS)	<0.02	mg/L	B	Blank Exceedance
SP-7	11/13/2019	BBC-1911-131	Energy Labs	H19110279-007	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance 54% rpd
SP-12	11/13/2019	BBC-1911-132	Energy Labs	H19110279-008	Iron (DIS)	0.03	mg/L	B	Blank Exceedance
SP-12	11/13/2019	BBC-1911-132	Energy Labs	H19110279-008	Total Suspended Solids	65	mg/L	J	Duplicate Exceedance 54% rpd
SP-6	11/12/2019	BBC-1911-135	Energy Labs	H19110279-005	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance 54% rpd
MW-4A	11/11/2019	BBC-1911-200	Energy Labs	H19110301-001	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance 54% rpd
MW-4B	11/11/2019	BBC-1911-201	Energy Labs	H19110301-002	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance 54% rpd
MW-16	11/11/2019	BBC-1911-202	Energy Labs	H19110301-003	Total Suspended Solids	16	mg/L	J	Duplicate Exceedance 54% rpd
MW-1B	11/11/2019	BBC-1911-203	Energy Labs	H19110301-004	Total Suspended Solids	18	mg/L	J	Duplicate Exceedance 54% rpd
MW-1A	11/12/2019	BBC-1911-204	Energy Labs	H19110301-005	Total Suspended Solids	129	mg/L	J	Duplicate Exceedance 54% rpd
MW-2A	11/12/2019	BBC-1911-205	Energy Labs	H19110301-006	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance 54% rpd
MW-2B	11/12/2019	BBC-1911-206	Energy Labs	H19110301-007	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance 54% rpd
MW-3	11/12/2019	BBC-1911-207	Energy Labs	H19110301-008	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance 54% rpd
MW-9	11/12/2019	BBC-1911-208	Energy Labs	H19110301-009	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance 54% rpd
MW-7	11/12/2019	BBC-1911-209	Energy Labs	H19110301-010	Total Suspended Solids	25	mg/L	J	Duplicate Exceedance 54% rpd
MW-6A	11/12/2019	BBC-1911-210	Energy Labs	H19110301-011	Total Suspended Solids	38	mg/L	J	Duplicate Exceedance 54% rpd
MW-6B	11/12/2019	BBC-1911-211	Energy Labs	H19110301-012	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance 54% rpd
MW-20	11/13/2019	BBC-1911-212	Energy Labs	H19110302-001	Iron (DIS)	<0.02	mg/L	B	Blank Exceedance
MW-20	11/13/2019	BBC-1911-212	Energy Labs	H19110302-001	Total Suspended Solids	119	mg/L	J	Duplicate Exceedance 54% rpd
MW-20	11/13/2019	BBC-1911-213	Energy Labs	H19110302-002	Iron (DIS)	0.03	mg/L	B	Blank Exceedance
MW-20	11/13/2019	BBC-1911-213	Energy Labs	H19110302-002	Total Suspended Solids	206	mg/L	J	Duplicate Exceedance 54% rpd
MW-8	11/13/2019	BBC-1911-214	Energy Labs	H19110302-003	Iron (DIS)	0.09	mg/L	B	Blank Exceedance
MW-8	11/13/2019	BBC-1911-214	Energy Labs	H19110302-003	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance 54% rpd
MW-10	11/13/2019	BBC-1911-215	Energy Labs	H19110302-004	Iron (DIS)	0.03	mg/L	B	Blank Exceedance
MW-10	11/13/2019	BBC-1911-215	Energy Labs	H19110302-004	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance 54% rpd
MW-11	11/13/2019	BBC-1911-216	Energy Labs	H19110302-005	Iron (DIS)	<0.02	mg/L	B	Blank Exceedance
MW-11	11/13/2019	BBC-1911-216	Energy Labs	H19110302-005	Total Suspended Solids	14	mg/L	J	Duplicate Exceedance 54% rpd
MW-12	11/13/2019	BBC-1911-219	Energy Labs	H19110302-007	Iron (DIS)	<0.02	mg/L	B	Blank Exceedance
MW-12	11/13/2019	BBC-1911-219	Energy Labs	H19110302-007	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance 54% rpd
SC15-185	11/13/2019	BBC-1911-220	Energy Labs	H19110302-008	Iron (DIS)	0.03	mg/L	B	Blank Exceedance
SC15-185	11/13/2019	BBC-1911-220	Energy Labs	H19110302-008	Total Suspended Solids	15	mg/L	J	Duplicate Exceedance 54% rpd
MW-13	11/13/2019	BBC-1911-221	Energy Labs	H19110302-009	Iron (DIS)	<0.02	mg/L	B	Blank Exceedance
MW-13	11/13/2019	BBC-1911-221	Energy Labs	H19110302-009	Total Suspended Solids	37	mg/L	J	Duplicate Exceedance 54% rpd
MW-19	11/13/2019	BBC-1911-222	Energy Labs	H19110302-010	Iron (DIS)	<0.02	mg/L	B	Blank Exceedance
MW-19	11/13/2019	BBC-1911-222	Energy Labs	H19110302-010	Total Suspended Solids	17	mg/L	J	Duplicate Exceedance 54% rpd
SC15-198	11/13/2019	BBC-1911-223	Energy Labs	H19110302-011	Iron (DIS)	0.03	mg/L	B	Blank Exceedance

Table 2. Summary of Flagged Data

StationName	Sample Date	Field Sample Id	Lab Name	Lab Sample Id	Parameter Name	Sample Result	Reporting Units	Validation Flag	Exceedance Type
SC15-198	11/13/2019	BBC-1911-223	Energy Labs	H19110302-011	Total Suspended Solids	20	mg/L	J	Duplicate Exceedance 54% rpd
SC15-194	11/13/2019	BBC-1911-224	Energy Labs	H19110302-012	Iron (DIS)	0.05	mg/L	B	Blank Exceedance
SC15-194	11/13/2019	BBC-1911-224	Energy Labs	H19110302-012	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance 54% rpd
MW-18	11/13/2019	BBC-1911-225	Energy Labs	H19110302-013	Iron (DIS)	<0.02	mg/L	B	Blank Exceedance
MW-18	11/13/2019	BBC-1911-225	Energy Labs	H19110302-013	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance 54% rpd
MW-17	11/13/2019	BBC-1911-226	Energy Labs	H19110302-014	Iron (DIS)	0.02	mg/L	B	Blank Exceedance
MW-17	11/13/2019	BBC-1911-226	Energy Labs	H19110302-014	Total Suspended Solids	<10	mg/L	J	Duplicate Exceedance 54% rpd

Black Butte Mine Data Comparison Summary

Report Date: December 12, 2019

SAMPLE NO BBC-1911-118	LAB NO: H19110279-001	STATION:DS-1

11/12/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	12.02	03/25/15-11/12/19	O	38	38	8.2	13.4	9.7	9.5	1.2	1.9	
Field pH (s.u.)	8.17	03/25/15-11/12/19	O	37	37	7.4	8.6	7.8	7.8	0.3	1.2	
Field SC (umhos/cm)	259	03/25/15-11/12/19	O	38	38	259.0	698.7	413.6	417.5	53.5	2.9	L
Flow (Gallons Per Min)	0	03/25/15-11/12/19	O	34	34	0.0	62.3	4.5	6.1	14	0.3	L
Water Temp (Deg C)	2.2	03/25/15-11/12/19	O	38	38	0.5	18.3	5.5	7.1	3.6	0.9	
TDS (mg/L)	223	03/25/15-11/12/19	O	38	38	203.0	245.0	229.5	229.5	9.3	0.7	
TSS (mg/L)	311	03/25/15-11/12/19	O	38	11	< 10	1130.0					
Alkalinity (mg/L)	220	03/25/15-11/12/19	O	38	38	180.0	220.0	214.8	220	8	0.6	H
Calcium (mg/L)	55	04/23/19-11/12/19	O	8	8	53.0	60.0	55.6	55	2.4	0.2	
Chloride (mg/L)	< 1	03/25/15-11/12/19	O	38	0	< 1	< 1					
Fluoride (mg/L)	0.1	03/25/15-11/12/19	O	38	35	0.1	0.1	0.1	0.1	0	0.0	H
Hardness (mg/L)	223	03/25/15-11/12/19	O	38	38	185.0	249.0	227.5	228	11.3	0.4	
Magnesium (mg/L)	21	04/23/19-11/12/19	O	8	8	19.0	22.0	20.6	20.5	1	0.4	
Potassium (mg/L)	< 1	04/23/19-11/12/19	O	8	0	< 1	< 1					
Sodium (mg/L)	2	04/23/19-11/12/19	O	8	8	1.0	2.0	1.8	2	0.3	0.6	H
Sulfate (mg/L)	15	03/25/15-11/12/19	O	38	38	11.0	18.0	14.7	15	1.6	0.2	
N+N (mg/L)	0.13	03/25/15-11/12/19	O	38	38	0.0	0.3	0.2	0.2	0.1	0.4	
Aluminum (DIS) (mg/L)	0.024	04/23/19-11/12/19	O	8	1	< 0	0.0					
Antimony (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	< .001					
Barium (DIS) (mg/L)	0.062	04/23/19-11/12/19	O	8	8	0.0	0.1	0.1	0.1	0	0.0	
Beryllium (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	< .002					
Iron (DIS) (mg/L)	0.03	04/23/19-11/12/19	O	8	1	< 0	0.0					
Lead (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	< .0003					
Manganese (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	< .005					
Mercury (DIS) (ug/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	< .002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Nickel (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	< .001					
Selenium (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	1	< 0	< .0002					
Silver (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.111	04/23/19-11/12/19	O	8	8	0.1	0.1	0.1	0.1	0	0.0	
Thallium (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	< .0002					
Uranium (DIS) (mg/L)	0.0007	04/23/19-11/12/19	O	8	8	0.0	0.0	0.0	0	0	0.0	H
Zinc (DIS) (mg/L)	0.002	04/23/19-11/12/19	O	8	5	0.0	0.0	0.0	0	0	0.0	L

SAMPLE NO BBC-1911-120 LAB NO: z — STATION:DS-2

11/12/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	16.7	10/12/11-08/19/14	OBS	2	2	4.3	9.5	6.4	6.9	2.9	3.6	*H
Field pH (s.u.)	7.61	10/12/11-08/19/14	OBS	2	2	6.5	7.9	7.1	7.2	0.5	0.9	
Field SC (umhos/cm)	388	10/12/11-08/19/14	OBS	2	2	331.0	354.0	342.3	342.5	68.4	0.7	H
Flow (Gallons Per Min)	0.26	10/12/11-08/19/14	OBS	2	2	0.3	0.8	0.4	0.5	2	0.1	L
Water Temp (Deg C)	0.98	10/12/11-08/19/14	OBS	2	2	5.7	13.3	8.7	9.5	4.8	1.6	L

SAMPLE NO BBC-1911-117 LAB NO: z — STATION:DS-3

11/11/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Gallons Per Min)	0	08/06/14-10/24/19	OBS	30	30	0.3	159.0	4.1	6.2	20.9	0.2	L

SAMPLE NO BBC-1911-127 LAB NO: z — STATION:DS-4

11/12/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Gallons Per Min)	0	10/13/11-08/29/18	OBS	10	8	< 1	7.5	2.6	2.4	3.3	0.8	L

SAMPLE NO BBC-1911-1 LAB NO: z — STATION:MW-1A

11/11/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
SWL (Feet)	7.9	08/26/11-11/12/19	OBS	33	33	2.3	9.8	6.3	7.1	2	0.8	
SWL (Feet)	7.85	08/26/11-11/12/19	O	33	33	2.3	9.8	6.3	7.1	2	0.8	
DO (mg/L)	9.38	08/26/11-11/12/19	O	32	32	5.4	17.6	9.8	9.5	2.3	0.2	
EH (Millivolts)	275.86	03/21/18-11/12/19	O	7	7	191.4	305.7	261.3	275.9	38.4	0.4	
Field pH (s.u.)	7.4	08/26/11-11/12/19	O	33	33	6.6	7.7	7.3	7.3	0.2	0.7	
Field SC (umhos/cm)	350	08/26/11-11/12/19	O	33	33	311.0	356.0	340.8	342.6	9.9	0.9	
Water Temp (Deg C)	7.3	08/26/11-11/12/19	O	33	33	5.9	9.4	7.0	6.9	0.6	0.4	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

TDS (mg/L)	203	08/26/11-11/12/19	O	33	33	176.0	209.0	192.4	194	8	1.3	
TSS (mg/L)	129	03/21/13-11/12/19	O	26	25	< 10	1380.0	78.2	71.5	327.5	0.2	
Alkalinity (mg/L)	170	08/26/11-11/12/19	O	33	33	160.0	190.0	172.6	170	6.3	0.4	
Calcium (mg/L)	43	06/19/19-11/12/19	O	3	3	42.0	44.0	43.0	43	1	0.0	
Chloride (mg/L)	1	08/26/11-11/12/19	O	33	31	1.0	2.0	1.1	1	0.3	0.3	L
Fluoride (mg/L)	0.2	08/26/11-11/12/19	O	33	33	0.2	0.3	0.2	0.2	0	0.0	L
Hardness (mg/L)	178	08/26/11-11/12/19	O	33	33	157.0	191.0	178.5	179	8.2	0.1	
Magnesium (mg/L)	17	06/19/19-11/12/19	O	3	3	17.0	18.0	17.3	17	0.6	0.5	L
Potassium (mg/L)	1	06/19/19-11/12/19	O	3	3	1.0	1.0	1.0	1	0	0.0	H
Sodium (mg/L)	2	06/19/19-11/12/19	O	3	3	2.0	2.0	2.0	2	0	0.0	H
Sulfate (mg/L)	15	08/26/11-11/12/19	O	33	33	8.0	15.0	11.0	12	2.1	1.9	H
N+N (mg/L)	0.03	08/26/11-11/12/19	O	33	33	0.0	0.5	0.4	0.4	0.1	3.6	*L
Aluminum (DIS) (mg/L)	0.013	06/19/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	L
Antimony (DIS) (mg/L)	< 0	06/19/19-11/12/19	O	3	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	< 0	06/19/19-11/12/19	O	3	0	< 0	< .001					
Barium (DIS) (mg/L)	0.167	06/19/19-11/12/19	O	3	3	0.2	0.2	0.2	0.2	0	0.0	L
Beryllium (DIS) (mg/L)	< 0	06/19/19-11/12/19	O	3	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	06/19/19-11/12/19	O	3	0	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	06/19/19-11/12/19	O	3	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	06/19/19-11/12/19	O	3	0	< 0	< .01					
Copper (DIS) (mg/L)	0.006	06/19/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	L
Iron (DIS) (mg/L)	0.04	06/19/19-11/12/19	O	3	1	< 0	0.0					
Lead (DIS) (mg/L)	0.0003	06/19/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	L
Manganese (DIS) (mg/L)	< 0	06/19/19-11/12/19	O	3	0	< 0	< .005					
Mercury (DIS) (ug/L)	< 0	06/19/19-11/12/19	O	3	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	06/19/19-11/12/19	O	3	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	06/19/19-11/12/19	O	3	0	< 0	< .001					
Selenium (DIS) (mg/L)	0.0002	06/19/19-11/12/19	O	3	1	0.0	0.0					
Silver (DIS) (mg/L)	< 0	06/19/19-11/12/19	O	3	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.102	06/19/19-11/12/19	O	3	3	0.1	0.1	0.1	0.1	0	0.0	H
Thallium (DIS) (mg/L)	0.0008	06/19/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	L
Uranium (DIS) (mg/L)	0.001	06/19/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Zinc (DIS) (mg/L)	0.002	06/19/19-11/12/19	O	3	1	0.0	0.0					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: December 12, 2019

SAMPLE NO BBC-1911-203	LAB NO: H19110301-004	STATION:MW-1B

11/11/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
SWL (Feet)	23.86	08/26/11-11/11/19	O	32	32	12.0	24.9	22.4	22.9	1.9	0.8	
SWL (Feet)	23.86	08/26/11-11/11/19	OBS	32	32	12.0	24.9	22.4	22.9	1.9	0.8	
DO (mg/L)	0.05	08/26/11-11/11/19	O	32	32	0.0	7.7	0.3	0.3	1.4	0.2	
EH (Millivolts)	227.02	03/21/18-11/11/19	O	8	8	182.8	271.1	217.3	213.5	27.2	0.4	
Field pH (s.u.)	6.34	08/26/11-11/11/19	O	33	33	6.0	7.8	6.3	6.3	0.3	0.0	
Field SC (umhos/cm)	616	08/26/11-11/11/19	O	33	33	337.0	661.0	590.7	602	51.4	0.5	
Water Temp (Deg C)	8.1	08/26/11-11/11/19	O	33	33	4.4	8.8	7.5	7.7	0.8	0.7	
TDS (mg/L)	434	08/26/11-11/11/19	O	33	33	187.0	436.0	401.1	411	43.9	0.8	
TSS (mg/L)	18	03/21/13-11/11/19	O	26	13	< 10	402.0					
Alkalinity (mg/L)	100	08/26/11-11/11/19	O	33	33	49.0	190.0	85.4	84	21.1	0.7	
Calcium (mg/L)	58	06/19/19-11/11/19	O	4	4	43.0	62.0	55.4	59.5	8.8	0.3	
Chloride (mg/L)	1	08/26/11-11/11/19	O	33	28	< 1	3.0	1.1	1	0.5	0.3	L
Fluoride (mg/L)	0.2	08/26/11-11/11/19	O	33	32	< 0.1	0.3	0.2	0.2	0	0.0	
Hardness (mg/L)	266	08/26/11-11/11/19	O	33	33	176.0	291.0	267.5	275	20.5	0.1	
Magnesium (mg/L)	30	06/19/19-11/11/19	O	4	4	17.0	32.0	26.9	31	7.2	0.4	
Potassium (mg/L)	3	06/19/19-11/11/19	O	4	3	< 1	3.0	2.3	3	1	0.7	H
Sodium (mg/L)	4	06/19/19-11/11/19	O	4	4	2.0	4.0	2.9	3	0.8	1.4	H
Sulfate (mg/L)	208	08/26/11-11/11/19	O	33	33	6.0	240.0	197.9	220	37.3	0.3	
N+N (mg/L)	< 0	08/26/11-11/11/19	O	33	20	0.0	0.6	0.0	0	0.1	0.2	L
Aluminum (DIS) (mg/L)	< 0	06/19/19-11/11/19	O	4	0	< 0	< .009					
Antimony (DIS) (mg/L)	0.0006	06/19/19-11/11/19	O	4	3	< 0	0.0	0.0	0	0	0.0	
Arsenic (DIS) (mg/L)	0.062	06/19/19-11/11/19	O	4	3	< 0	0.1	0.0	0.1	0	0.0	
Barium (DIS) (mg/L)	0.013	06/19/19-11/11/19	O	4	4	0.0	0.1	0.0	0	0	0.0	
Beryllium (DIS) (mg/L)	< 0	06/19/19-11/11/19	O	4	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	06/19/19-11/11/19	O	4	0	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	06/19/19-11/11/19	O	4	0	< 0	< .01					
Cobalt (DIS) (mg/L)	0.03	06/19/19-11/11/19	O	4	3	< 0	0.0	0.0	0	0	0.0	H
Copper (DIS) (mg/L)	< 0	06/19/19-11/11/19	O	4	0	< 0	< .002					
Iron (DIS) (mg/L)	17.9	06/19/19-11/11/19	O	4	3	< 0	19.0	3.4	18.4	9.3	1.6	
Lead (DIS) (mg/L)	< 0	06/19/19-11/11/19	O	4	0	< 0	< .0003					
Manganese (DIS) (mg/L)	0.078	06/19/19-11/11/19	O	4	3	< 0	0.1	0.0	0.1	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Mercury (DIS) (ug/L)	< 0	06/19/19-11/11/19	O	4	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	06/19/19-11/11/19	O	4	0	< 0	< .002					
Nickel (DIS) (mg/L)	0.011	06/19/19-11/11/19	O	4	3	< 0	0.0	0.0	0	0	0.0	H
Selenium (DIS) (mg/L)	< 0	06/19/19-11/11/19	O	4	0	< 0	< .0002					
Silver (DIS) (mg/L)	< 0	06/19/19-11/11/19	O	4	0	< 0	< .0002					
Strontium (DIS) (mg/L)	1.71	06/19/19-11/11/19	O	4	4	0.1	1.9	0.8	1.7	0.8	1.1	
Thallium (DIS) (mg/L)	0.0123	06/19/19-11/11/19	O	4	3	< 0	0.0	0.0	0	0	0.0	H
Uranium (DIS) (mg/L)	< 0	06/19/19-11/11/19	O	4	1	< 0	0.0					
Zinc (DIS) (mg/L)	0.013	06/19/19-11/11/19	O	4	3	< 0	0.0	0.0	0	0	0.0	H

SAMPLE NO BBC-1911-205 LAB NO: H19110301-006

STATION:MW-2A

PARAMETER	11/12/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
SWL (Feet)	41.98	11/30/11-11/12/19	O	31	31	40.8	43.2	42.2	42.2	0.4	0.4	
SWL (Feet)	41.98	11/30/11-11/12/19	OBS	31	31	40.8	43.2	42.2	42.2	0.4	0.4	
DO (mg/L)	7.91	11/30/11-11/12/19	O	31	31	4.3	13.0	7.2	7.5	1.7	0.4	
EH (Millivolts)	287.03	03/20/18-11/12/19	O	7	7	241.8	289.2	270.8	278.5	18.1	0.9	
Field pH (s.u.)	7.35	11/30/11-11/12/19	O	31	31	7.1	7.5	7.3	7.3	0.1	0.4	
Field SC (umhos/cm)	386	11/30/11-11/12/19	O	31	31	353.0	412.3	380.8	382	12.3	0.4	
Water Temp (Deg C)	7.5	11/30/11-11/12/19	O	31	31	6.3	8.1	7.1	7.2	0.5	0.8	
TDS (mg/L)	216	11/30/11-11/12/19	O	32	32	191.0	279.0	209.4	209.5	14.2	0.5	
TSS (mg/L)	< 10	03/21/13-11/12/19	O	25	6	5.0	14.0					
Alkalinity (mg/L)	190	11/30/11-11/12/19	O	32	32	180.0	220.0	191.1	190	8.7	0.1	
Calcium (mg/L)	44	06/17/19-11/12/19	O	3	3	41.0	44.0	42.3	42	1.5	1.1	H
Chloride (mg/L)	1	11/30/11-11/12/19	O	32	31	1.0	2.0	1.3	1	0.5	0.5	L
Fluoride (mg/L)	0.3	11/30/11-11/12/19	O	32	32	0.3	0.4	0.3	0.3	0.1	0.4	L
Hardness (mg/L)	203	11/30/11-11/12/19	O	32	32	190.0	268.0	203.6	202	12.7	0.0	
Magnesium (mg/L)	23	06/17/19-11/12/19	O	3	3	22.0	23.0	22.3	22	0.6	1.1	H
Potassium (mg/L)	1	06/17/19-11/12/19	O	3	3	1.0	1.0	1.0	1	0	0.0	H
Sodium (mg/L)	3	06/17/19-11/12/19	O	3	3	2.0	3.0	2.6	3	0.6	0.6	H
Sulfate (mg/L)	19	11/30/11-11/12/19	O	32	32	15.0	51.0	19.3	19.5	6.1	0.0	
N+N (mg/L)	0.42	11/30/11-11/12/19	O	32	31	< 0	0.4	0.2	0.2	0.1	2.2	H
Aluminum (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .009					
Antimony (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .001					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Barium (DIS) (mg/L)	0.087	06/17/19-11/12/19	O	3	3	0.1	0.1	0.1	0.1	0	0.0	H
Beryllium (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .002					
Iron (DIS) (mg/L)	0.03	06/17/19-11/12/19	O	3	1	< 0	0.0					
Lead (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .0003					
Manganese (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .005					
Mercury (DIS) (ug/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .001					
Selenium (DIS) (mg/L)	0.001	06/17/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	
Silver (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.0937	06/17/19-11/12/19	O	3	3	0.1	0.1	0.1	0.1	0	0.0	H
Thallium (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .0002					
Uranium (DIS) (mg/L)	0.0005	06/17/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Zinc (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .002					

SAMPLE NO BBC-1911-4 LAB NO: z

STATION:MW-2B

PARAMETER	11/11/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
SWL (Feet)	41.95	11/30/11-11/12/19	OBS	31	31	40.8	43.1	42.0	42	0.4	0.1	
SWL (Feet)	41.98	11/30/11-11/12/19	O	31	31	40.8	43.1	42.0	42	0.4	0.0	
DO (mg/L)	0.2	11/30/11-11/12/19	O	31	31	0.1	10.3	0.4	0.4	1.8	0.1	
EH (Millivolts)	275.01	03/20/18-11/12/19	O	7	7	230.7	299.8	260.1	266.5	25.9	0.6	
Field pH (s.u.)	7.22	11/30/11-11/12/19	O	31	31	7.0	7.5	7.3	7.3	0.1	0.4	
Field SC (umhos/cm)	418	11/30/11-11/12/19	O	31	31	192.0	525.0	443.3	453	55.3	0.5	
Water Temp (Deg C)	7.6	11/30/11-11/12/19	O	31	31	3.0	8.0	7.0	7.2	0.9	0.7	
TDS (mg/L)	235	11/30/11-11/12/19	O	31	31	208.0	292.0	253.7	251	17.3	1.1	
TSS (mg/L)	< 10	03/21/13-11/12/19	O	25	1	< 4	17.0					
Alkalinity (mg/L)	190	11/30/11-11/12/19	O	31	31	180.0	260.0	213.6	210	15.4	1.5	
Calcium (mg/L)	47	06/17/19-11/12/19	O	3	3	47.0	50.0	48.0	47	1.7	0.6	L
Chloride (mg/L)	1	11/30/11-11/12/19	O	31	24	< 1	2.0	1.1	1	0.4	0.3	L
Fluoride (mg/L)	0.3	11/30/11-11/12/19	O	31	31	0.3	0.4	0.4	0.4	0	0.0	L

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Hardness (mg/L)	219	11/30/11-11/12/19	O	31	31	202.0	280.0	248.4	249	16.8	1.8	
Magnesium (mg/L)	25	06/17/19-11/12/19	O	3	3	25.0	27.0	25.6	25	1.2	0.5	L
Potassium (mg/L)	1	06/17/19-11/12/19	O	3	3	1.0	2.0	1.3	1	0.6	0.4	L
Sodium (mg/L)	3	06/17/19-11/12/19	O	3	3	3.0	3.0	3.0	3	0	0.0	H
Sulfate (mg/L)	32	11/30/11-11/12/19	O	31	31	23.0	51.0	39.2	39	5.2	1.4	
N+N (mg/L)	0.22	11/30/11-11/12/19	O	31	2	< 0	< .5					
Aluminum (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .009					
Antimony (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	0.004	06/17/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Barium (DIS) (mg/L)	0.042	06/17/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	
Beryllium (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .00003					
Chromium (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .002					
Iron (DIS) (mg/L)	0.03	06/17/19-11/12/19	O	3	2	< 0	0.0	0.0	0	0	0.0	
Lead (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .0003					
Manganese (DIS) (mg/L)	0.006	06/17/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	
Mercury (DIS) (ug/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .001					
Selenium (DIS) (mg/L)	0.0083	06/17/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Silver (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.0904	06/17/19-11/12/19	O	3	3	0.1	0.1	0.1	0.1	0	0.0	
Thallium (DIS) (mg/L)	0.0035	06/17/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	
Uranium (DIS) (mg/L)	0.0021	06/17/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	L
Zinc (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .002					

SAMPLE NO BBC-1911-207 LAB NO: H19110301-008 STATION:MW-3

11/12/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
SWL (Feet)	39.16	11/30/11-11/12/19	O	31	31	26.2	46.1	38.4	40.1	5.1	0.2	
SWL (Feet)	39.34	11/30/11-11/12/19	OBS	31	31	26.2	46.1	38.4	40.1	5.1	0.2	
DO (mg/L)	0.05	11/30/11-11/12/19	O	31	31	0.0	2.1	0.1	0.2	0.4	0.2	
EH (Millivolts)	213.3	03/19/18-11/12/19	O	7	7	152.2	222.0	181.0	173.3	26.4	1.2	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Field pH (s.u.)	7.07	11/30/11-11/12/19	O	31	31	6.8	7.3	7.1	7.1	0.1	0.1	
Field SC (umhos/cm)	789	11/30/11-11/12/19	O	31	31	727.0	883.0	819.4	829	40	0.8	
Water Temp (Deg C)	9.4	11/30/11-11/12/19	O	31	31	8.1	10.3	9.3	9.5	0.6	0.1	
TDS (mg/L)	532	11/30/11-11/12/19	O	31	31	508.0	607.0	565.9	562	26.8	1.3	
TSS (mg/L)	< 10	06/03/13-11/12/19	O	25	0	< 4	< 10					
Alkalinity (mg/L)	210	11/30/11-11/12/19	O	31	31	210.0	230.0	216.4	220	5.3	1.2	L
Calcium (mg/L)	73	06/17/19-11/12/19	O	3	3	72.0	73.0	72.3	72	0.5	1.3	H
Chloride (mg/L)	1	11/30/11-11/12/19	O	31	31	1.0	2.0	1.1	1	0.4	0.4	L
Fluoride (mg/L)	0.7	11/30/11-11/12/19	O	31	31	0.6	0.8	0.7	0.8	0.1	0.5	
Hardness (mg/L)	378	11/30/11-11/12/19	O	31	31	361.0	523.0	415.4	418	32.6	1.1	
Magnesium (mg/L)	48	06/17/19-11/12/19	O	3	3	48.0	48.0	48.0	48	0.5	0.0	H
Potassium (mg/L)	3	06/17/19-11/12/19	O	3	3	3.0	4.0	3.3	3	0.5	0.6	L
Sodium (mg/L)	16	06/17/19-11/12/19	O	3	3	15.0	16.0	15.7	16	0.6	0.6	H
Sulfate (mg/L)	204	11/30/11-11/12/19	O	31	31	204.0	280.0	246.4	250	24.7	1.7	L
N+N (mg/L)	< 0	11/30/11-11/12/19	O	31	3	< 0	0.0					
Aluminum (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .009					
Antimony (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	0.07	06/17/19-11/12/19	O	3	3	0.1	0.1	0.1	0.1	0	0.0	H
Barium (DIS) (mg/L)	0.012	06/17/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Beryllium (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .002					
Iron (DIS) (mg/L)	1	06/17/19-11/12/19	O	3	3	1.0	1.0	1.0	1	0	0.0	
Lead (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .0003					
Manganese (DIS) (mg/L)	0.023	06/17/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Mercury (DIS) (ug/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .001					
Selenium (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .0002					
Silver (DIS) (mg/L)	< 0	06/17/19-11/12/19	O	3	0	< 0	< .0002					
Strontium (DIS) (mg/L)	12.8	06/17/19-11/12/19	O	3	3	12.8	13.6	13.2	13.3	0.3	1.4	L
Thallium (DIS) (mg/L)	0.0003	06/17/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Uranium (DIS) (mg/L)	0.0011	06/17/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Zinc (DIS) (mg/L)	0.007	06/17/19-11/12/19	O	3	1	< 0	0.0					

SAMPLE NO BBC-1911-200 LAB NO: H19110301-001 STATION:MW-4A

PARAMETER	11/11/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
SWL (Feet)	4.55	05/31/12-11/11/19	O	29	29	3.4	6.0	4.8	4.8	0.6	0.4	
SWL (Feet)	4.55	05/31/12-11/11/19	OBS	29	29	3.4	6.0	4.8	4.8	0.6	0.4	
DO (mg/L)	0.17	05/31/12-11/11/19	O	29	28	0.0	3.6	0.4	0.6	0.9	0.3	
EH (Millivolts)	272.13	03/21/18-11/11/19	O	7	7	-380.5	287.4	29.5	230.3	32.2	7.5	*
Field pH (s.u.)	7.4	05/31/12-11/11/19	O	29	29	6.2	7.5	7.2	7.3	0.3	0.6	
Field SC (umhos/cm)	543	05/31/12-11/11/19	O	29	29	481.0	569.0	512.6	513	22.2	1.4	
Water Temp (Deg C)	7.5	05/31/12-11/11/19	O	29	29	4.3	9.2	6.3	7	1.6	0.8	
TDS (mg/L)	315	05/31/12-11/11/19	O	29	29	270.0	328.0	289.1	290	13.3	1.9	
TSS (mg/L)	< 10	03/21/13-11/11/19	O	25	1	< 4	23.0					
Alkalinity (mg/L)	270	05/31/12-11/11/19	O	29	29	240.0	300.0	267.6	270	12.9	0.2	
Calcium (mg/L)	87	06/20/19-11/11/19	O	3	3	75.0	87.0	81.8	84	6.2	0.8	H
Chloride (mg/L)	9	05/31/12-11/11/19	O	29	29	2.0	9.0	2.7	2.6	1.3	4.9	*H
Fluoride (mg/L)	0.1	05/31/12-11/11/19	O	29	29	0.1	0.2	0.1	0.1	0	0.0	L
Hardness (mg/L)	323	05/31/12-11/11/19	O	29	29	253.0	323.0	279.3	280	13	3.4	*H
Magnesium (mg/L)	23	06/20/19-11/11/19	O	3	3	20.0	23.0	21.6	22	1.5	0.9	H
Potassium (mg/L)	2	06/20/19-11/11/19	O	3	3	1.0	2.0	1.6	2	0.6	0.7	H
Sodium (mg/L)	3	06/20/19-11/11/19	O	3	3	3.0	3.0	3.0	3	0	0.0	H
Sulfate (mg/L)	14	05/31/12-11/11/19	O	29	29	8.0	21.0	13.7	14	3.1	0.1	
N+N (mg/L)	0.03	05/31/12-11/11/19	O	29	3	< 0	0.0					
Aluminum (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .009					
Antimony (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .001					
Barium (DIS) (mg/L)	0.2	06/20/19-11/11/19	O	3	3	0.2	0.2	0.2	0.2	0	0.0	
Beryllium (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .002					
Iron (DIS) (mg/L)	0.04	06/20/19-11/11/19	O	3	2	< 0	0.1	0.0	0	0	0.0	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Lead (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .0003					
Manganese (DIS) (mg/L)	0.304	06/20/19-11/11/19	O	3	3	0.2	0.4	0.3	0.3	0.1	0.0	
Mercury (DIS) (ug/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	1	< 0	< .001					
Selenium (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .0002					
Silver (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.184	06/20/19-11/11/19	O	3	3	0.2	0.2	0.2	0.2	0	0.0	
Thallium (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .0002					
Uranium (DIS) (mg/L)	0.0004	06/20/19-11/11/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Zinc (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .002					

SAMPLE NO BBC-1911-201 LAB NO: H19110301-002

STATION:MW-4B

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
11/11/19												
SWL (Feet)	4.03	05/31/12-11/11/19	O	29	29	3.0	7.3	4.4	4.4	0.7	0.5	
SWL (Feet)	4.03	05/31/12-11/11/19	OBS	29	29	3.0	7.3	4.4	4.4	0.7	0.5	
DO (mg/L)	0.09	05/31/12-11/11/19	O	29	29	0.0	3.4	0.3	0.3	0.7	0.3	
EH (Millivolts)	230.8	03/21/18-11/11/19	O	7	7	161.5	347.7	216.9	223.6	62.1	0.2	
Field pH (s.u.)	7.55	05/31/12-11/11/19	O	29	29	6.8	7.8	7.5	7.5	0.2	0.4	
Field SC (umhos/cm)	447	05/31/12-11/11/19	O	29	29	419.0	510.0	455.7	449	21.7	0.4	
Water Temp (Deg C)	6.5	05/31/12-11/11/19	O	29	29	5.3	7.0	6.2	6.2	0.4	0.7	
TDS (mg/L)	242	05/31/12-11/11/19	O	29	29	231.0	275.0	250.1	249	12.1	0.7	
TSS (mg/L)	< 10	03/21/13-11/11/19	O	25	0	< 4	< 10					
Alkalinity (mg/L)	220	05/31/12-11/11/19	O	29	29	220.0	270.0	237.2	230	14.8	1.2	L
Calcium (mg/L)	67	06/20/19-11/11/19	O	3	3	61.0	67.0	64.0	64	3	1.0	H
Chloride (mg/L)	3	05/31/12-11/11/19	O	29	29	1.0	3.0	1.8	2	0.4	3.1	*H
Fluoride (mg/L)	0.1	05/31/12-11/11/19	O	29	29	0.1	0.2	0.1	0.1	0	0.0	L
Hardness (mg/L)	259	05/31/12-11/11/19	O	29	29	167.0	265.0	242.0	243	18.7	0.9	
Magnesium (mg/L)	22	06/20/19-11/11/19	O	3	3	19.0	22.0	20.3	20	1.5	1.1	H
Potassium (mg/L)	1	06/20/19-11/11/19	O	3	3	1.0	2.0	1.3	1	0.6	0.4	L
Sodium (mg/L)	2	06/20/19-11/11/19	O	3	3	2.0	2.0	2.0	2	0	0.0	H
Sulfate (mg/L)	15	05/31/12-11/11/19	O	29	29	11.0	26.0	14.3	14	3.2	0.2	
N+N (mg/L)	< 0	05/31/12-11/11/19	O	29	22	< 0	0.1	0.0	0	0	0.0	L
Aluminum (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .009					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Antimony (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .001					
Barium (DIS) (mg/L)	0.132	06/20/19-11/11/19	O	3	3	0.1	0.1	0.1	0.1	0	0.0	H
Beryllium (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .002					
Iron (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .02					
Lead (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .0003					
Manganese (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .005					
Mercury (DIS) (ug/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .001					
Selenium (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .0002					
Silver (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.174	06/20/19-11/11/19	O	3	3	0.2	0.2	0.2	0.2	0	0.0	H
Thallium (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .0002					
Uranium (DIS) (mg/L)	0.0006	06/20/19-11/11/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Zinc (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .002					

SAMPLE NO BBC-1911-8 LAB NO: z

STATION:MW-6A

11/11/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
SWL (Feet)	8.67	11/06/13-11/12/19	OBS	23	23	6.3	9.7	8.3	8.5	1.4	0.3	
SWL (Feet)	8.7	11/06/13-11/12/19	O	23	23	6.3	9.7	8.3	8.5	1.4	0.3	
DO (mg/L)	5.1	11/06/13-11/12/19	O	23	23	3.1	8.1	5.5	5.6	1.3	0.3	
EH (Millivolts)	273.43	03/20/18-11/12/19	O	7	7	240.5	416.9	293.6	273.4	62.4	0.3	
Field pH (s.u.)	7.59	11/06/13-11/12/19	O	23	23	6.6	7.7	7.5	7.5	0.3	0.4	
Field SC (umhos/cm)	451	11/06/13-11/12/19	O	23	23	397.0	489.0	436.4	435	22.8	0.6	
Water Temp (Deg C)	7.5	11/06/13-11/12/19	O	23	23	4.9	9.6	6.7	7.2	1.1	0.7	
TDS (mg/L)	249	11/06/13-11/12/19	O	23	23	223.0	266.0	244.4	246	10	0.5	
TSS (mg/L)	38	03/25/14-11/12/19	O	21	15	< 10	193.0	29.2	27	55.9	0.2	
Alkalinity (mg/L)	230	11/06/13-11/12/19	O	23	23	210.0	250.0	230.1	230	13	0.0	
Calcium (mg/L)	55	06/20/19-11/12/19	O	3	3	47.0	55.0	51.6	53	4.2	0.8	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Chloride (mg/L)	< 1	11/06/13-11/12/19	O	23	12	< 1	< 1	1.0	1	0	0.0	H
Fluoride (mg/L)	0.2	11/06/13-11/12/19	O	23	23	0.2	0.2	0.2	0.2	0	0.0	H
Hardness (mg/L)	237	11/06/13-11/12/19	O	23	23	207.0	264.0	240.3	240	14.8	0.2	
Magnesium (mg/L)	24	06/20/19-11/12/19	O	3	3	22.0	24.0	23.0	23	1	1.0	H
Potassium (mg/L)	< 1	06/20/19-11/12/19	O	3	0	< 1	< 1					
Sodium (mg/L)	3	06/20/19-11/12/19	O	3	3	3.0	3.0	3.0	3	0	0.0	H
Sulfate (mg/L)	15	11/06/13-11/12/19	O	23	22	< 1	18.0	12.7	15	3.7	0.6	
N+N (mg/L)	0.1	11/06/13-11/12/19	O	23	23	0.1	0.2	0.1	0.1	0	0.0	
Aluminum (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .009					
Antimony (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .001					
Barium (DIS) (mg/L)	0.186	06/20/19-11/12/19	O	3	3	0.2	0.2	0.2	0.2	0	0.0	H
Beryllium (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .002					
Iron (DIS) (mg/L)	0.03	06/20/19-11/12/19	O	3	1	< 0	0.0					
Lead (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .0003					
Manganese (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .005					
Mercury (DIS) (ug/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .001					
Selenium (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .0002					
Silver (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.167	06/20/19-11/12/19	O	3	3	0.1	0.2	0.2	0.2	0	0.0	H
Thallium (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .0002					
Uranium (DIS) (mg/L)	0.0007	06/20/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Zinc (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .002					

SAMPLE NO BBC-1911-9 LAB NO: z

STATION:MW-6B

11/11/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
SWL (Feet)	11.83	11/06/13-11/12/19	OBS	23	23	10.0	13.0	11.6	11.8	1.4	0.1
SWL (Feet)	11.86	11/06/13-11/12/19	O	23	23	10.0	13.0	11.6	11.8	1.4	0.2

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

DO (mg/L)	3.23	11/06/13-11/12/19	O	23	23	1.8	4.6	3.1	3.2	0.8	0.1	
EH (Millivolts)	271.14	03/20/18-11/12/19	O	7	7	244.4	413.8	280.3	256.5	60.6	0.2	
Field pH (s.u.)	7.65	11/06/13-11/12/19	O	23	23	7.2	7.8	7.6	7.7	0.2	0.3	
Field SC (umhos/cm)	458	11/06/13-11/12/19	O	23	23	422.0	508.0	455.6	455	21.3	0.1	
Water Temp (Deg C)	6.8	11/06/13-11/12/19	O	23	23	5.4	7.1	6.4	6.5	0.4	0.9	
TDS (mg/L)	252	11/06/13-11/12/19	O	23	23	236.0	272.0	253.8	253	9.1	0.2	
TSS (mg/L)	< 10	03/25/14-11/12/19	O	21	15	< 10	1260.0	24.2	15	272	0.1	L
Alkalinity (mg/L)	230	11/06/13-11/12/19	O	23	23	210.0	240.0	228.6	230	7.8	0.2	
Calcium (mg/L)	47	06/20/19-11/12/19	O	3	3	41.0	47.0	44.9	47	3.5	0.6	H
Chloride (mg/L)	< 1	11/06/13-11/12/19	O	23	10	< 1	2.0					
Fluoride (mg/L)	0.5	11/06/13-11/12/19	O	23	23	0.5	0.8	0.6	0.6	0.1	1.0	L
Hardness (mg/L)	212	11/06/13-11/12/19	O	23	23	190.0	230.0	215.8	214	10.3	0.4	
Magnesium (mg/L)	23	06/20/19-11/12/19	O	3	3	21.0	23.0	22.3	23	1.2	0.6	H
Potassium (mg/L)	1	06/20/19-11/12/19	O	3	3	1.0	1.0	1.0	1	0	0.0	H
Sodium (mg/L)	15	06/20/19-11/12/19	O	3	3	15.0	17.0	15.6	15	1.2	0.5	L
Sulfate (mg/L)	22	11/06/13-11/12/19	O	23	23	16.0	29.0	22.0	23	3.3	0.0	
N+N (mg/L)	0.08	11/06/13-11/12/19	O	23	23	0.1	0.1	0.1	0.1	0	0.0	
Aluminum (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	1	< 0	0.0					
Antimony (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .001					
Barium (DIS) (mg/L)	0.116	06/20/19-11/12/19	O	3	3	0.1	0.1	0.1	0.1	0	0.0	H
Beryllium (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .00003					
Chromium (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .002					
Iron (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .02					
Lead (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .0003					
Manganese (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .005					
Mercury (DIS) (ug/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .001					
Selenium (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .0002					
Silver (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .0002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Strontium (DIS) (mg/L)	0.232	06/20/19-11/12/19	O	3	3	0.2	0.2	0.2	0.2	0	0.0	H
Thallium (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .0002					
Uranium (DIS) (mg/L)	0.0007	06/20/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Zinc (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .002					

SAMPLE NO BBC-1911-209 LAB NO: H19110301-010 STATION:MW-7

PARAMETER	11/12/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
SWL (Feet)	32.27	11/06/13-11/12/19	O	23	23	30.9	33.5	32.0	32.1	1.2	0.2	
SWL (Feet)	32.3	11/06/13-11/12/19	OBS	23	23	30.9	33.5	32.0	32.1	1.2	0.3	
DO (mg/L)	3.28	11/06/13-11/12/19	O	23	23	0.1	4.0	0.7	0.7	1	2.6	
EH (Millivolts)	267.59	03/20/18-11/12/19	O	7	7	190.4	267.6	213.0	201.5	29.8	1.8	H
Field pH (s.u.)	7.6	11/06/13-11/12/19	O	23	23	6.8	7.8	7.5	7.5	0.2	0.6	
Field SC (umhos/cm)	547	11/06/13-11/12/19	O	23	23	490.0	582.0	536.8	540	24.1	0.4	
Water Temp (Deg C)	7.1	11/06/13-11/12/19	O	23	23	6.3	9.9	7.7	7.7	0.8	0.7	
TDS (mg/L)	323	11/06/13-11/12/19	O	23	23	304.0	348.0	319.1	315	11.9	0.3	
TSS (mg/L)	25	03/25/14-11/12/19	O	21	18	< 10	1440.0	73.6	96	325.6	0.1	
Alkalinity (mg/L)	220	11/06/13-11/12/19	O	23	23	220.0	280.0	235.2	230	16.5	0.9	L
Calcium (mg/L)	55	06/20/19-11/12/19	O	3	3	50.0	57.0	53.9	55	3.6	0.3	
Chloride (mg/L)	4	11/06/13-11/12/19	O	23	23	3.0	5.0	3.9	4	0.5	0.3	
Fluoride (mg/L)	0.3	11/06/13-11/12/19	O	23	23	0.3	0.7	0.3	0.3	0.1	0.2	L
Hardness (mg/L)	284	11/06/13-11/12/19	O	23	23	266.0	322.0	297.2	298	13.4	1.0	
Magnesium (mg/L)	36	06/20/19-11/12/19	O	3	3	34.0	36.0	35.3	36	1.2	0.6	H
Potassium (mg/L)	1	06/20/19-11/12/19	O	3	3	1.0	1.0	1.0	1	0	0.0	H
Sodium (mg/L)	3	06/20/19-11/12/19	O	3	3	3.0	3.0	3.0	3	0	0.0	H
Sulfate (mg/L)	66	11/06/13-11/12/19	O	23	23	54.0	84.0	66.3	66	7.6	0.0	
N+N (mg/L)	< 0	11/06/13-11/12/19	O	23	3	< 0	0.1					
Aluminum (DIS) (mg/L)	0.015	06/20/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	
Antimony (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	0.002	06/20/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Barium (DIS) (mg/L)	0.04	06/20/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Beryllium (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .00003					
Chromium (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .01					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Copper (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .002					
Iron (DIS) (mg/L)	0.04	06/20/19-11/12/19	O	3	3	0.0	0.1	0.1	0.1	0	0.0	L
Lead (DIS) (mg/L)	0.0007	06/20/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	
Manganese (DIS) (mg/L)	0.007	06/20/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	L
Mercury (DIS) (ug/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	0.004	06/20/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Nickel (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	1	< 0	< .001					
Selenium (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .0002					
Silver (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.161	06/20/19-11/12/19	O	3	3	0.1	0.2	0.2	0.2	0	0.0	H
Thallium (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .0002					
Uranium (DIS) (mg/L)	0.0021	06/20/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Zinc (DIS) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .002					

SAMPLE NO BBC-1911-214 LAB NO: H19110302-003

STATION:MW-8

11/13/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
SWL (Feet)	31.06	11/06/13-11/13/19	O	23	23	27.6	32.7	30.3	30.7	1.8	0.4	
SWL (Feet)	31.02	11/06/13-11/13/19	OBS	23	23	27.6	32.7	30.3	30.7	1.8	0.4	
DO (mg/L)	0.12	11/06/13-11/13/19	O	23	23	0.0	1.3	0.1	0.1	0.3	0.1	
EH (Millivolts)	170.18	03/20/18-11/13/19	O	7	7	83.7	170.2	119.2	119.2	25.4	2.0	H
Field pH (s.u.)	8.01	11/06/13-11/13/19	O	23	23	7.5	8.1	7.9	8	0.2	0.5	
Field SC (umhos/cm)	307	11/06/13-11/13/19	O	23	23	280.0	330.0	306.4	308	12.4	0.0	
Water Temp (Deg C)	7.2	11/06/13-11/13/19	O	23	23	6.0	7.6	7.0	7.2	0.4	0.5	
TDS (mg/L)	159	11/06/13-11/13/19	O	23	23	151.0	171.0	162.7	163	4.6	0.8	
TSS (mg/L)	< 10	03/25/14-11/13/19	O	21	7	< 4	65.0					
Alkalinity (mg/L)	150	11/06/13-11/13/19	O	23	23	140.0	170.0	153.8	150	7	0.5	
Calcium (mg/L)	25	06/20/19-11/13/19	O	3	3	23.0	25.0	24.3	25	1.2	0.6	H
Chloride (mg/L)	< 1	11/06/13-11/13/19	O	23	0	< 1	< 1					
Fluoride (mg/L)	0.2	11/06/13-11/13/19	O	23	23	0.2	0.3	0.2	0.2	0	0.0	L
Hardness (mg/L)	159	11/06/13-11/13/19	O	23	23	146.0	173.0	162.0	164	5.7	0.5	
Magnesium (mg/L)	23	06/20/19-11/13/19	O	3	3	22.0	23.0	22.7	23	0.6	0.6	H
Potassium (mg/L)	< 1	06/20/19-11/13/19	O	3	0	< 1	< 1					
Sodium (mg/L)	3	06/20/19-11/13/19	O	3	3	3.0	3.0	3.0	3	0	0.0	H
Sulfate (mg/L)	15	11/06/13-11/13/19	O	23	23	11.0	16.0	14.1	15	1.6	0.6	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

N+N (mg/L)	< 0	11/06/13-11/13/19	O	23	1	< 0	< .01					
Aluminum (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .009					
Antimony (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	0.002	06/20/19-11/13/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Barium (DIS) (mg/L)	0.079	06/20/19-11/13/19	O	3	3	0.1	0.1	0.1	0.1	0	0.0	H
Beryllium (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .002					
Iron (DIS) (mg/L)	0.09	06/20/19-11/13/19	O	3	3	0.1	0.1	0.1	0.1	0	0.0	H
Lead (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .0003					
Manganese (DIS) (mg/L)	0.01	06/20/19-11/13/19	O	3	3	0.0	0.0	0.0	0	0	0.0	
Mercury (DIS) (ug/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .001					
Selenium (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .0002					
Silver (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.0838	06/20/19-11/13/19	O	3	3	0.1	0.1	0.1	0.1	0	0.0	H
Thallium (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .0002					
Uranium (DIS) (mg/L)	0.0007	06/20/19-11/13/19	O	3	3	0.0	0.0	0.0	0	0	0.0	L
Zinc (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .002					

SAMPLE NO BBC-1911-208 LAB NO: H19110301-009

STATION:MW-9

PARAMETER	11/12/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
SWL (Feet)	51.98	11/24/14-11/12/19	O	20	20	46.9	52.2	50.5	50.8	1.2	1.2
SWL (Feet)	52.01	11/24/14-11/12/19	OBS	20	20	46.9	52.2	50.5	50.8	1.2	1.2
DO (mg/L)	0.07	11/24/14-11/12/19	O	20	20	0.0	1.3	0.1	0.1	0.4	0.2
EH (Millivolts)	222.25	03/19/18-11/12/19	O	7	7	153.8	227.5	189.5	192.7	26.9	1.2
Field pH (s.u.)	6.98	11/24/14-11/12/19	O	20	20	6.7	7.2	7.0	7	0.1	0.4
Field SC (umhos/cm)	796	11/24/14-11/12/19	O	20	20	470.0	826.0	757.2	782.5	75	0.5
Water Temp (Deg C)	9.1	11/24/14-11/12/19	O	20	20	6.8	9.4	8.5	8.8	0.7	0.8
TDS (mg/L)	527	11/24/14-11/12/19	O	20	20	501.0	548.0	524.9	527.5	10.3	0.2
TSS (mg/L)	< 10	03/24/15-11/12/19	O	19	1	< 4	51.0				

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Alkalinity (mg/L)	240	11/24/14-11/12/19	O	20	20	230.0	250.0	242.4	240	6.1	0.4	
Calcium (mg/L)	84	06/19/19-11/12/19	O	3	3	82.0	92.0	85.9	84	5.3	0.4	
Chloride (mg/L)	1	11/24/14-11/12/19	O	20	20	1.0	2.0	1.1	1	0.2	0.3	L
Fluoride (mg/L)	0.5	11/24/14-11/12/19	O	20	20	0.5	0.6	0.6	0.6	0	0.0	L
Hardness (mg/L)	413	11/24/14-11/12/19	O	20	20	389.0	454.0	427.9	429.5	18.3	0.8	
Magnesium (mg/L)	49	06/19/19-11/12/19	O	3	3	49.0	54.0	50.6	49	2.9	0.6	L
Potassium (mg/L)	4	06/19/19-11/12/19	O	3	3	4.0	4.0	4.0	4	0	0.0	H
Sodium (mg/L)	6	06/19/19-11/12/19	O	3	3	5.0	6.0	5.3	5	0.6	1.1	H
Sulfate (mg/L)	186	11/24/14-11/12/19	O	20	20	186.0	216.0	201.2	200	8	1.9	L
N+N (mg/L)	< 0	11/24/14-11/12/19	O	20	2	< 0	0.0					
Aluminum (DIS) (mg/L)	< 0	06/19/19-11/12/19	O	3	0	< 0	< .009					
Antimony (DIS) (mg/L)	< 0	06/19/19-11/12/19	O	3	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	0.015	06/19/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Barium (DIS) (mg/L)	0.014	06/19/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Beryllium (DIS) (mg/L)	< 0	06/19/19-11/12/19	O	3	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	06/19/19-11/12/19	O	3	0	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	06/19/19-11/12/19	O	3	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	06/19/19-11/12/19	O	3	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	06/19/19-11/12/19	O	3	0	< 0	< .002					
Iron (DIS) (mg/L)	0.83	06/19/19-11/12/19	O	3	3	0.8	0.9	0.9	0.9	0	0.0	L
Lead (DIS) (mg/L)	0.0021	06/19/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Manganese (DIS) (mg/L)	0.09	06/19/19-11/12/19	O	3	3	0.1	0.1	0.1	0.1	0	0.0	H
Mercury (DIS) (ug/L)	< 0	06/19/19-11/12/19	O	3	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	06/19/19-11/12/19	O	3	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	06/19/19-11/12/19	O	3	0	< 0	< .001					
Selenium (DIS) (mg/L)	< 0	06/19/19-11/12/19	O	3	0	< 0	< .0002					
Silver (DIS) (mg/L)	< 0	06/19/19-11/12/19	O	3	0	< 0	< .0002					
Strontium (DIS) (mg/L)	1.39	06/19/19-11/12/19	O	3	3	1.2	1.4	1.3	1.3	0.1	0.8	H
Thallium (DIS) (mg/L)	0.0036	06/19/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Uranium (DIS) (mg/L)	0.001	06/19/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Zinc (DIS) (mg/L)	< 0	06/19/19-11/12/19	O	3	0	< 0	< .002					

SAMPLE NO BBC-1911-29 LAB NO: z

STATION:PW-1

11/11/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

SWL (Feet)	100.95	N/A	OBS	0								

SAMPLE NO BBC-1911-38 LAB NO: z — STATION:PW-10

PARAMETER	11/11/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
SWL (Feet)	45.04	03/24/15-09/17/19	OBS	9	9	43.2	46.9	45.1	45.5	1.3	0.0

SAMPLE NO BBC-1911-30 LAB NO: z — STATION:PW-2

PARAMETER	11/11/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
SWL (Feet)	51.71	09/20/16-09/16/19	OBS	8	8	49.3	57.4	53.5	53.6	3.1	0.6

SAMPLE NO BBC-1911-31 LAB NO: z — STATION:PW-3

PARAMETER	11/11/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
SWL (Feet)	11.44	09/21/16-09/18/19	OBS	8	8	10.1	13.9	12.5	13	1.2	0.9

SAMPLE NO BBC-1911-32 LAB NO: z — STATION:PW-4

PARAMETER	11/11/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
SWL (Feet)	53.05	09/20/16-09/18/19	OBS	8	8	50.4	53.9	52.5	52.8	1.3	0.4

SAMPLE NO BBC-1911-35 LAB NO: z — STATION:PW-7

PARAMETER	11/11/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
SWL (Feet)	-9999	N/A	OBS	0							

SAMPLE NO BBC-1911-36 LAB NO: z — STATION:PW-8

PARAMETER	11/11/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
SWL (Feet)	44.57	08/20/14-09/17/19	OBS	9	9	39.8	88.2	48.1	46.2	8.9	0.4

SAMPLE NO BBC-1911-37 LAB NO: z — STATION:PW-9

PARAMETER	11/11/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
SWL (Feet)	47.95	09/19/16-09/17/19	OBS	8	8	43.1	47.0	45.0	45.3	1.6	1.9 H

SAMPLE NO BBC-1911-218 LAB NO: z — STATION:SC15-184

PARAMETER	11/13/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

SWL (Feet)	0	09/20/19	OBS	1	1	0.0	0.0	0.0	0	0	0.0	H
SWL (Feet)	-9999	09/20/19	OBS	1	1	0.0	0.0	0.0	0	0	0.0	L

SAMPLE NO BBC-1911-26 LAB NO: z

STATION:SC15-185

11/11/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
SWL (Feet)	31.04	08/04/15-11/13/19	OBS	16	16	23.4	37.2	30.5	30.9	3.9	0.1	
SWL (Feet)	31.02	08/04/15-11/13/19	O	16	16	23.4	37.2	30.5	30.9	3.9	0.1	
DO (mg/L)	2.52	08/04/15-11/13/19	O	16	16	1.1	6.2	4.0	4.7	1.3	1.2	
EH (Millivolts)	343.93	03/22/18-11/13/19	O	7	7	250.5	479.9	336.2	343.9	83.3	0.1	
Field pH (s.u.)	7.82	08/04/15-11/13/19	O	16	16	6.1	8.3	7.8	7.9	0.5	0.1	
Field SC (umhos/cm)	394	08/04/15-11/13/19	O	16	16	3.9	474.3	301.7	395.5	101.9	0.9	
Water Temp (Deg C)	5.7	08/04/15-11/13/19	O	16	16	1.6	11.1	5.4	5.5	2	0.2	
TDS (mg/L)	213	08/04/15-11/13/19	O	16	16	208.0	227.0	218.0	218.5	5.2	1.0	
TSS (mg/L)	15	08/04/15-11/13/19	O	16	3	< 4	29.0					
Alkalinity (mg/L)	210	08/04/15-11/13/19	O	16	16	200.0	210.0	204.9	205	5.2	1.0	H
Calcium (mg/L)	44	06/18/19-11/13/19	O	3	3	44.0	47.0	45.0	44	1.7	0.6	L
Chloride (mg/L)	< 1	08/04/15-11/13/19	O	16	1	< 1	< 1					
Fluoride (mg/L)	0.1	08/04/15-11/13/19	O	16	16	0.1	0.2	0.1	0.1	0.1	0.3	L
Hardness (mg/L)	196	08/04/15-11/13/19	O	16	16	191.0	219.0	204.7	206.5	8.3	1.0	
Magnesium (mg/L)	21	06/18/19-11/13/19	O	3	3	21.0	22.0	21.3	21	0.6	0.5	L
Potassium (mg/L)	2	06/18/19-11/13/19	O	3	3	2.0	2.0	2.0	2	0	0.0	H
Sodium (mg/L)	4	06/18/19-11/13/19	O	3	3	4.0	4.0	4.0	4	0	0.0	H
Sulfate (mg/L)	12	08/04/15-11/13/19	O	16	16	8.9	15.0	10.9	11	1.7	0.6	
N+N (mg/L)	0.25	08/04/15-11/13/19	O	16	16	0.2	0.4	0.3	0.3	0	0.0	
Aluminum (DIS) (mg/L)	0.016	06/18/19-11/13/19	O	3	2	< 0	0.0	0.0	0	0	0.0	H
Antimony (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .001					
Barium (DIS) (mg/L)	0.065	06/18/19-11/13/19	O	3	3	0.1	0.1	0.1	0.1	0	0.0	L
Beryllium (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .002					
Iron (DIS) (mg/L)	0.03	06/18/19-11/13/19	O	3	1	< 0	0.0					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Lead (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .0003					
Manganese (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .005					
Mercury (DIS) (ug/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	0.004	06/18/19-11/13/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Nickel (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .001					
Selenium (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .0002					
Silver (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.237	06/18/19-11/13/19	O	3	3	0.2	0.2	0.2	0.2	0	0.0	
Thallium (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .0002					
Uranium (DIS) (mg/L)	0.0031	06/18/19-11/13/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Zinc (DIS) (mg/L)	0.002	06/18/19-11/13/19	O	3	1	0.0	0.0					

SAMPLE NO BBC-1911-27 LAB NO: z

STATION:SC15-194

11/11/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
SWL (Feet)	19.96	08/04/15-11/13/19	OBS	15	15	17.7	21.8	20.0	20	1.2	0.0	
SWL (Feet)	19.98	08/04/15-11/13/19	O	15	15	17.7	21.8	20.0	20	1.2	0.0	
DO (mg/L)	1.26	08/04/15-11/13/19	O	16	16	0.3	10.1	1.7	1.5	2.7	0.1	
EH (Millivolts)	197.23	03/22/18-11/13/19	O	7	7	106.1	240.8	182.3	197.2	44.4	0.3	
Field pH (s.u.)	7.77	08/04/15-11/13/19	O	16	16	6.5	8.1	7.7	7.8	0.4	0.2	
Field SC (umhos/cm)	384	08/04/15-11/13/19	O	16	16	358.0	467.2	394.2	388.5	24.3	0.4	
Water Temp (Deg C)	6.3	08/04/15-11/13/19	O	16	16	4.5	17.9	7.1	7	3.2	0.2	
TDS (mg/L)	214	08/04/15-11/13/19	O	16	16	207.0	227.0	216.6	216	5.7	0.4	
TSS (mg/L)	< 10	08/04/15-11/13/19	O	16	4	4.0	20.0					
Alkalinity (mg/L)	180	08/04/15-11/13/19	O	16	16	160.0	180.0	177.4	180	5.8	0.4	H
Calcium (mg/L)	40	06/18/19-11/13/19	O	3	3	40.0	44.0	41.3	40	2.3	0.6	L
Chloride (mg/L)	< 1	08/04/15-11/13/19	O	16	0	< 1	< 1					
Fluoride (mg/L)	0.3	08/04/15-11/13/19	O	16	16	0.3	0.4	0.3	0.3	0	0.0	L
Hardness (mg/L)	194	08/04/15-11/13/19	O	16	16	193.0	218.0	206.2	206.5	7.8	1.6	
Magnesium (mg/L)	23	06/18/19-11/13/19	O	3	3	23.0	25.0	23.6	23	1.2	0.5	L
Potassium (mg/L)	< 1	06/18/19-11/13/19	O	3	0	< 1	< 1					
Sodium (mg/L)	2	06/18/19-11/13/19	O	3	3	2.0	2.0	2.0	2	0	0.0	H
Sulfate (mg/L)	32	08/04/15-11/13/19	O	16	16	28.0	36.0	31.4	31.5	2.3	0.3	
N+N (mg/L)	< 0	08/04/15-11/13/19	O	16	0	< 0	< .01					
Aluminum (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .009					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Antimony (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	0.001	06/18/19-11/13/19	O	3	2	0.0	0.0	0.0	0	0	0.0	H
Barium (DIS) (mg/L)	0.034	06/18/19-11/13/19	O	3	3	0.0	0.0	0.0	0	0	0.0	L
Beryllium (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .00003					
Chromium (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .002					
Iron (DIS) (mg/L)	0.05	06/18/19-11/13/19	O	3	3	0.0	0.1	0.0	0	0	0.0	H
Lead (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .0003					
Manganese (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .005					
Mercury (DIS) (ug/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .001					
Selenium (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .0002					
Silver (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.0703	06/18/19-11/13/19	O	3	3	0.1	0.1	0.1	0.1	0	0.0	H
Thallium (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .0002					
Uranium (DIS) (mg/L)	0.0008	06/18/19-11/13/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Zinc (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .002					

SAMPLE NO BBC-1911-28 LAB NO: z

STATION:SC15-198

11/11/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
SWL (Feet)	42.3	09/16/15-11/13/19	OBS	15	15	31.7	46.5	40.4	41.7	4.2	0.5	
SWL (Feet)	42.34	09/16/15-11/13/19	O	15	15	31.7	46.5	40.4	41.7	4.2	0.5	
DO (mg/L)	1.34	09/16/15-11/13/19	O	15	15	1.3	9.6	6.8	8	2.1	2.6	L
EH (Millivolts)	379.4	03/22/18-11/13/19	O	7	7	256.0	465.0	336.9	355.4	75.5	0.6	
Field pH (s.u.)	7.68	09/16/15-11/13/19	O	15	15	7.4	7.9	7.7	7.7	0.2	0.0	
Field SC (umhos/cm)	423	09/16/15-11/13/19	O	15	15	416.0	508.7	433.0	426	23.3	0.4	
Water Temp (Deg C)	5.9	09/16/15-11/13/19	O	15	15	3.4	17.5	6.6	5.9	4.2	0.2	
TDS (mg/L)	229	09/16/15-11/13/19	O	15	15	223.0	251.0	233.1	233	7.3	0.6	
TSS (mg/L)	20	09/16/15-11/13/19	O	15	2	< 4	20.0					
Alkalinity (mg/L)	210	09/16/15-11/13/19	O	15	15	210.0	230.0	221.9	220	7.7	1.5	L
Calcium (mg/L)	46	06/18/19-11/13/19	O	3	3	46.0	48.0	46.7	46	1.2	0.5	L

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Chloride (mg/L)	2	09/16/15-11/13/19	O	15	15	1.6	4.0	2.2	2	0.6	0.3	
Fluoride (mg/L)	0.1	09/16/15-11/13/19	O	15	15	0.1	0.2	0.1	0.1	0	0.0	L
Hardness (mg/L)	216	09/16/15-11/13/19	O	15	15	216.0	248.0	228.6	227	8.7	1.4	L
Magnesium (mg/L)	24	06/18/19-11/13/19	O	3	3	24.0	26.0	25.0	25	1	1.0	L
Potassium (mg/L)	< 1	06/18/19-11/13/19	O	3	0	< 1	< 1					
Sodium (mg/L)	3	06/18/19-11/13/19	O	3	3	3.0	3.0	3.0	3	0	0.0	H
Sulfate (mg/L)	6	09/16/15-11/13/19	O	15	15	6.0	9.0	7.1	7	1	1.1	L
N+N (mg/L)	0.62	09/16/15-11/13/19	O	15	15	0.5	0.7	0.6	0.6	0.1	0.0	
Aluminum (DIS) (mg/L)	0.075	06/18/19-11/13/19	O	3	1	< 0	0.1					
Antimony (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .001					
Barium (DIS) (mg/L)	0.373	06/18/19-11/13/19	O	3	3	0.3	0.4	0.3	0.4	0	0.0	H
Beryllium (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .002					
Iron (DIS) (mg/L)	0.03	06/18/19-11/13/19	O	3	1	< 0	0.0					
Lead (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .0003					
Manganese (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .005					
Mercury (DIS) (ug/L)	< 0	06/18/19-11/13/19	O	3	1	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .001					
Selenium (DIS) (mg/L)	0.0002	06/18/19-11/13/19	O	3	3	0.0	0.0	0.0	0	0	0.0	L
Silver (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.0951	06/18/19-11/13/19	O	3	3	0.1	0.1	0.1	0.1	0	0.0	L
Thallium (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	0	< 0	< .0002					
Uranium (DIS) (mg/L)	0.0006	06/18/19-11/13/19	O	3	3	0.0	0.0	0.0	0	0	0.0	L
Zinc (DIS) (mg/L)	< 0	06/18/19-11/13/19	O	3	1	< 0	0.0					

SAMPLE NO BBC-1911-125 LAB NO: H19110279-002

STATION:SP-10

PARAMETER	11/12/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Gallons Per Min)	< 0.1	05/23/18-11/12/19	O	14	13	< 0.1	59.7	3.0	2.3	16.4	0.2	L
TDS (mg/L)	239	05/23/18-11/12/19	O	16	16	162.0	239.0	218.7	227	19.2	1.1	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

TSS (mg/L)	58	05/23/18-11/12/19	O	16	7	< 10	399.0					
Alkalinity (mg/L)	220	05/23/18-11/12/19	O	16	16	150.0	220.0	207.2	220	18.6	0.7	H
Calcium (mg/L)	57	04/23/19-11/12/19	O	8	8	38.0	62.0	52.9	54.5	6.8	0.6	
Chloride (mg/L)	< 1	05/23/18-11/12/19	O	16	0	< 1	< 1					
Fluoride (mg/L)	0.1	05/23/18-11/12/19	O	16	16	0.1	0.1	0.1	0.1	0	0.0	H
Hardness (mg/L)	228	05/23/18-11/12/19	O	16	16	147.0	245.0	216.3	219	22.7	0.5	
Magnesium (mg/L)	21	04/23/19-11/12/19	O	8	8	13.0	21.0	18.6	20	2.5	1.0	H
Potassium (mg/L)	1	04/23/19-11/12/19	O	8	5	1.0	1.0	1.0	1	0	0.0	H
Sodium (mg/L)	2	04/23/19-11/12/19	O	8	8	1.0	2.0	1.7	2	0.4	0.8	H
Sulfate (mg/L)	16	05/23/18-11/12/19	O	16	16	6.0	17.0	12.7	14	3.1	1.1	
N+N (mg/L)	0.21	05/23/18-11/12/19	O	16	16	0.1	0.3	0.2	0.2	0.1	0.2	
Aluminum (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	1	< 0	0.0					
Antimony (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	< .001					
Barium (DIS) (mg/L)	0.051	04/23/19-11/12/19	O	8	8	0.0	0.1	0.0	0.1	0	0.0	
Beryllium (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	< .002					
Iron (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	1	< 0	0.1					
Lead (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	< .0003					
Manganese (DIS) (mg/L)	0.02	04/23/19-11/12/19	O	8	2	< 0	0.1					
Mercury (DIS) (ug/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	< .001					
Selenium (DIS) (mg/L)	0.0003	04/23/19-11/12/19	O	8	4	< 0	0.0					
Silver (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.114	04/23/19-11/12/19	O	8	8	0.1	0.1	0.1	0.1	0	0.0	
Thallium (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	< .0002					
Uranium (DIS) (mg/L)	0.0008	04/23/19-11/12/19	O	8	8	0.0	0.0	0.0	0	0	0.0	H
Zinc (DIS) (mg/L)	< 0	04/23/19-11/12/19	O	8	0	< 0	< .002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: December 12, 2019

SAMPLE NO BBC-1911-126	LAB NO: H19110279-003	STATION:SP-3

11/12/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	14.2	07/20/11-11/12/19	O	35	35	5.0	19.4	9.4	9.5	2.3	2.1	
Field pH (s.u.)	7.78	07/20/11-11/12/19	O	34	34	6.2	8.7	7.4	7.4	0.5	0.8	
Field SC (umhos/cm)	183	07/20/11-11/12/19	O	35	35	91.0	223.0	161.2	177	38.4	0.6	
Flow (Gallons Per Min)	< 0	07/20/11-11/12/19	O	32	30	< 0	8.1	0.6	0.6	1.8	0.3	L
Water Temp (Deg C)	1.4	07/20/11-11/12/19	O	35	35	1.4	17.0	6.5	7.4	4	1.3	L
TDS (mg/L)	136	07/20/11-11/12/19	O	35	35	113.0	214.0	138.5	134	21	0.1	
TSS (mg/L)	< 10	08/28/13-11/12/19	O	33	17	< 10	191.0	21.9	10	107.6	0.1	L
Alkalinity (mg/L)	95	07/20/11-11/12/19	O	35	35	37.0	100.0	74.5	83	20.6	1.0	
Calcium (mg/L)	28	04/24/19-11/12/19	O	8	8	13.0	29.0	21.5	23.5	6	1.1	
Chloride (mg/L)	< 1	07/20/11-11/12/19	O	35	6	< 1	2.0					
Fluoride (mg/L)	0.1	07/20/11-11/12/19	O	35	35	0.1	0.1	0.1	0.1	0	0.0	H
Hardness (mg/L)	96	07/20/11-11/12/19	O	35	35	46.0	109.0	78.7	83	18.5	0.9	
Magnesium (mg/L)	6	04/24/19-11/12/19	O	8	8	3.0	6.0	4.8	5	1.1	1.1	H
Potassium (mg/L)	1	04/24/19-11/12/19	O	8	8	1.0	2.0	1.2	1	0.5	0.4	L
Sodium (mg/L)	3	04/24/19-11/12/19	O	8	8	2.0	3.0	2.4	2.5	0.5	1.1	H
Sulfate (mg/L)	6	07/20/11-11/12/19	O	35	35	3.0	7.0	5.2	6	1.2	0.7	
N+N (mg/L)	0.3	07/20/11-11/12/19	O	35	35	0.1	0.4	0.3	0.3	0.1	0.3	
Aluminum (DIS) (mg/L)	0.178	04/24/19-11/12/19	O	8	8	0.1	2.2	0.3	0.2	0.8	0.1	
Antimony (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	8	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	0.001	04/24/19-11/12/19	O	8	8	0.0	0.0	0.0	0	0	0.0	L
Barium (DIS) (mg/L)	0.29	04/24/19-11/12/19	O	8	8	0.2	0.3	0.3	0.3	0	0.0	
Beryllium (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	8	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	8	1	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	8	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	8	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	8	3	< 0	0.0					
Iron (DIS) (mg/L)	0.09	04/24/19-11/12/19	O	8	8	0.0	1.4	0.2	0.1	0.5	0.2	
Lead (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	8	2	< 0	0.0					
Manganese (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	8	3	< 0	0.0					
Mercury (DIS) (ug/L)	< 0	04/24/19-11/12/19	O	8	5	< 0	0.0	0.0	0	0	0.0	L
Molybdenum (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	8	0	< 0	< .002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Nickel (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	8	4	< 0	0.0					
Selenium (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	8	0	< 0	< .0002					
Silver (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	8	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.0809	04/24/19-11/12/19	O	8	8	0.0	0.1	0.1	0.1	0	0.0	
Thallium (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	8	0	< 0	< .0002					
Uranium (DIS) (mg/L)	0.0002	04/24/19-11/12/19	O	8	2	0.0	0.0					
Zinc (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	8	2	< 0	0.0					

SAMPLE NO BBC-1911-130 LAB NO: H19110279-006

STATION:SP-4

11/13/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	12.09	07/21/11-11/13/19	O	57	57	6.7	14.0	9.8	9.7	1.3	1.7	
Field pH (s.u.)	7.61	07/21/11-11/13/19	O	56	56	7.0	8.6	7.7	7.7	0.3	0.3	
Field SC (umhos/cm)	425	07/21/11-11/13/19	O	57	57	162.0	481.0	420.9	430	44.1	0.1	
Flow (Gallons Per Min)	8.08	07/21/11-11/13/19	O	49	49	0.0	50.3	3.7	5.4	10.8	0.4	
Water Temp (Deg C)	6.5	07/21/11-11/13/19	O	56	56	0.1	12.2	5.7	6.7	2	0.4	
TDS (mg/L)	248	07/21/11-11/13/19	O	58	58	202.0	272.0	246.1	248	13.6	0.1	
TSS (mg/L)	< 10	08/28/13-11/13/19	O	55	32	5.0	890.0	19.4	11	118.8	0.1	
Alkalinity (mg/L)	200	07/21/11-11/13/19	O	58	58	190.0	210.0	200.6	200	4.7	0.1	
Calcium (mg/L)	53	04/24/19-11/13/19	O	8	8	46.0	53.0	48.2	47	2.3	2.1	H
Chloride (mg/L)	< 1	07/21/11-11/13/19	O	58	14	1.0	1.0					
Fluoride (mg/L)	0.2	07/21/11-11/13/19	O	58	58	0.2	0.3	0.2	0.2	0	0.0	L
Hardness (mg/L)	247	07/21/11-11/13/19	O	57	57	208.0	255.0	234.7	234	12	1.0	
Magnesium (mg/L)	28	04/24/19-11/13/19	O	8	8	24.0	28.0	25.0	24.5	1.4	2.2	H
Potassium (mg/L)	2	04/24/19-11/13/19	O	8	8	2.0	2.0	2.0	2	0	0.0	H
Sodium (mg/L)	2	04/24/19-11/13/19	O	8	8	2.0	2.0	2.0	2	0	0.0	H
Sulfate (mg/L)	33	07/21/11-11/13/19	O	58	58	10.0	45.0	34.8	37.5	6.5	0.3	
N+N (mg/L)	0.28	07/21/11-11/13/19	O	58	58	0.2	0.4	0.3	0.3	0	0.0	
Aluminum (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	1	< 0	0.0					
Antimony (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .001					
Barium (DIS) (mg/L)	0.11	04/24/19-11/13/19	O	8	8	0.1	0.1	0.1	0.1	0	0.0	
Beryllium (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .01					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Cobalt (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .002					
Iron (DIS) (mg/L)	0.06	04/24/19-11/13/19	O	8	4	< 0	0.1					
Lead (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .0003					
Manganese (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	4	< 0	0.0					
Mercury (DIS) (ug/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .001					
Selenium (DIS) (mg/L)	0.0004	04/24/19-11/13/19	O	8	8	0.0	0.0	0.0	0	0	0.0	H
Silver (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.0718	04/24/19-11/13/19	O	8	8	0.1	0.1	0.1	0.1	0	0.0	
Thallium (DIS) (mg/L)	0.0003	04/24/19-11/13/19	O	8	8	0.0	0.0	0.0	0	0	0.0	H
Uranium (DIS) (mg/L)	0.0005	04/24/19-11/13/19	O	8	8	0.0	0.0	0.0	0	0	0.0	H
Zinc (DIS) (mg/L)	0.004	04/24/19-11/13/19	O	8	2	< 0	0.0					

SAMPLE NO BBC-1911-129 LAB NO: H19110279-004

STATION:SP-6

11/12/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	5.51	10/12/11-11/12/19	O	50	50	5.5	282.0	10.3	9.5	37.8	0.1	L
Field pH (s.u.)	7.7	10/12/11-11/12/19	O	49	49	5.8	8.7	7.3	7.5	0.6	0.6	
Field SC (umhos/cm)	287	10/12/11-11/12/19	O	50	50	188.0	327.0	268.1	269.5	18.9	1.0	
Flow (Gallons Per Min)	0.94	10/12/11-11/12/19	O	47	39	0.3	4.1	1.1	1	1	0.2	
Water Temp (Deg C)	6.5	10/12/11-11/12/19	O	49	49	4.4	10.3	7.2	7.5	1.3	0.5	
TDS (mg/L)	176	10/12/11-11/12/19	O	51	51	145.0	188.0	161.8	161	8.4	1.7	
TDS (mg/L)	175	10/12/11-11/12/19	O	51	51	145.0	188.0	161.8	161	8.4	1.6	
TSS (mg/L)	< 10	08/28/13-11/12/19	O	49	14	< 4	216.0					
TSS (mg/L)	< 10	08/28/13-11/12/19	O	49	14	< 4	216.0					
Alkalinity (mg/L)	140	10/12/11-11/12/19	DUP	50	50	120.0	160.0	135.2	130	7.5	0.6	
Alkalinity (mg/L)	140	10/12/11-11/12/19	O	50	50	120.0	160.0	135.2	130	7.5	0.6	
Calcium (mg/L)	41	04/24/19-11/12/19	O	9	9	32.0	41.0	35.9	36	3.1	1.7	H
Calcium (mg/L)	40	04/24/19-11/12/19	O	9	9	32.0	41.0	35.9	36	3.1	1.3	
Chloride (mg/L)	1	10/12/11-11/12/19	O	51	14	< 1	2.0					
Chloride (mg/L)	1	10/12/11-11/12/19	O	51	14	< 1	2.0					
Fluoride (mg/L)	0.2	10/12/11-11/12/19	O	51	51	0.1	0.2	0.2	0.2	0	0.0	H
Fluoride (mg/L)	0.2	10/12/11-11/12/19	O	51	51	0.1	0.2	0.2	0.2	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Hardness (mg/L)	165	10/12/11-11/12/19	O	51	51	129.0	165.0	141.5	141	8.1	2.9	H
Hardness (mg/L)	165	10/12/11-11/12/19	O	51	51	129.0	165.0	141.5	141	8.1	2.9	H
Magnesium (mg/L)	15	04/24/19-11/12/19	O	9	9	12.0	15.0	13.3	13	1.2	1.4	H
Magnesium (mg/L)	15	04/24/19-11/12/19	O	9	9	12.0	15.0	13.3	13	1.2	1.4	H
Potassium (mg/L)	< 1	04/24/19-11/12/19	O	9	3	< 1	< 1					
Potassium (mg/L)	< 1	04/24/19-11/12/19	O	9	3	< 1	< 1					
Sodium (mg/L)	2	04/24/19-11/12/19	O	9	9	2.0	2.0	2.0	2	0	0.0	H
Sodium (mg/L)	2	04/24/19-11/12/19	O	9	9	2.0	2.0	2.0	2	0	0.0	H
Sulfate (mg/L)	11	10/12/11-11/12/19	O	51	51	7.0	12.0	9.1	9.8	1.5	1.3	
Sulfate (mg/L)	11	10/12/11-11/12/19	O	51	51	7.0	12.0	9.1	9.8	1.5	1.3	
N+N (mg/L)	0.41	10/12/11-11/12/19	O	51	51	0.3	0.7	0.4	0.4	0.1	0.2	
N+N (mg/L)	0.41	10/12/11-11/12/19	O	51	51	0.3	0.7	0.4	0.4	0.1	0.2	
Aluminum (DIS) (mg/L)	0.042	04/24/19-11/12/19	O	9	3	< 0	0.1					
Aluminum (DIS) (mg/L)	0.044	04/24/19-11/12/19	O	9	3	< 0	0.1					
Antimony (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .0005					
Antimony (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .001					
Arsenic (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .001					
Barium (DIS) (mg/L)	0.203	04/24/19-11/12/19	O	9	9	0.2	0.2	0.2	0.2	0	0.0	
Barium (DIS) (mg/L)	0.199	04/24/19-11/12/19	O	9	9	0.2	0.2	0.2	0.2	0	0.0	
Beryllium (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .0008					
Beryllium (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	: .00003					
Cadmium (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .01					
Chromium (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .002					
Copper (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .002					
Iron (DIS) (mg/L)	0.03	04/24/19-11/12/19	O	9	4	0.0	0.1					
Iron (DIS) (mg/L)	0.05	04/24/19-11/12/19	O	9	4	0.0	0.1					
Lead (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .0003					
Lead (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .0003					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Manganese (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .005					
Manganese (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .005					
Mercury (DIS) (ug/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .005					
Mercury (DIS) (ug/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .002					
Molybdenum (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .001					
Nickel (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .001					
Selenium (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	2	< 0	< .0002					
Selenium (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	2	< 0	< .0002					
Silver (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .0002					
Silver (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.0775	04/24/19-11/12/19	O	9	9	0.1	0.1	0.1	0.1	0	0.0	
Strontium (DIS) (mg/L)	0.078	04/24/19-11/12/19	O	9	9	0.1	0.1	0.1	0.1	0	0.0	
Thallium (DIS) (mg/L)	0.0005	04/24/19-11/12/19	O	9	9	0.0	0.0	0.0	0	0	0.0	
Thallium (DIS) (mg/L)	0.0006	04/24/19-11/12/19	O	9	9	0.0	0.0	0.0	0	0	0.0	H
Uranium (DIS) (mg/L)	0.0004	04/24/19-11/12/19	O	9	9	0.0	0.0	0.0	0	0	0.0	L
Uranium (DIS) (mg/L)	0.0004	04/24/19-11/12/19	O	9	9	0.0	0.0	0.0	0	0	0.0	L
Zinc (DIS) (mg/L)	0.002	04/24/19-11/12/19	O	9	1	0.0	0.0					
Zinc (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	1	0.0	0.0					

SAMPLE NO BBC-1911-131 LAB NO: H19110279-007

STATION:SP-7

11/13/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	3.97	03/26/15-11/13/19	O	54	54	2.0	11.0	3.6	3.5	1.6	0.2	
Field pH (s.u.)	7.01	03/26/15-11/13/19	O	53	53	6.2	8.2	7.4	7.4	0.3	1.3	
Field SC (umhos/cm)	334	03/26/15-11/13/19	O	54	54	196.0	354.0	322.0	330	27.1	0.4	
Flow (Gallons Per Min)	19.75	03/26/15-11/13/19	O	48	48	6.7	136.0	19.1	16.2	26.3	0.0	
Water Temp (Deg C)	7	03/26/15-11/13/19	O	53	53	5.1	7.9	6.6	6.9	0.6	0.7	
TDS (mg/L)	195	03/26/15-11/13/19	O	54	54	173.0	200.0	187.4	188	6.6	1.2	
TSS (mg/L)	< 10	03/26/15-11/13/19	O	54	7	< 4	146.0					
Alkalinity (mg/L)	170	03/26/15-11/13/19	O	54	54	160.0	170.0	166.2	170	4.7	0.8	H
Calcium (mg/L)	43	04/24/19-11/13/19	O	8	8	40.0	44.0	42.0	42	1.2	0.8	
Chloride (mg/L)	2	03/26/15-11/13/19	O	54	54	1.0	2.0	1.8	2	0.3	0.7	H
Fluoride (mg/L)	0.3	03/26/15-11/13/19	O	54	54	0.3	0.4	0.3	0.3	0	0.0	L

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Hardness (mg/L)	167	03/26/15-11/13/19	O	54	54	153.0	178.0	167.2	167	5.6	0.0	
Magnesium (mg/L)	15	04/24/19-11/13/19	O	8	8	13.0	15.0	14.1	14	0.6	1.5	H
Potassium (mg/L)	3	04/24/19-11/13/19	O	8	8	3.0	3.0	3.0	3	0	0.0	H
Sodium (mg/L)	5	04/24/19-11/13/19	O	8	8	4.0	5.0	4.9	5	0.3	0.5	H
Sulfate (mg/L)	11	03/26/15-11/13/19	O	54	54	7.0	12.0	9.8	10	1.2	1.0	
N+N (mg/L)	0.33	03/26/15-11/13/19	O	54	54	0.3	0.4	0.3	0.3	0	0.0	
Aluminum (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	1	< 0	0.0					
Antimony (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	0.004	04/24/19-11/13/19	O	8	8	0.0	0.0	0.0	0	0	0.0	H
Barium (DIS) (mg/L)	0.111	04/24/19-11/13/19	O	8	8	0.1	0.1	0.1	0.1	0	0.0	L
Beryllium (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .002					
Iron (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	1	< 0	0.0					
Lead (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .0003					
Manganese (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .005					
Mercury (DIS) (ug/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .001					
Selenium (DIS) (mg/L)	0.0003	04/24/19-11/13/19	O	8	8	0.0	0.0	0.0	0	0	0.0	H
Silver (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.168	04/24/19-11/13/19	O	8	8	0.2	0.2	0.2	0.2	0	0.0	
Thallium (DIS) (mg/L)	0.001	04/24/19-11/13/19	O	8	8	0.0	0.0	0.0	0	0	0.0	L
Uranium (DIS) (mg/L)	0.0009	04/24/19-11/13/19	O	8	8	0.0	0.0	0.0	0	0	0.0	H
Zinc (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .002					

SAMPLE NO BBC-1911-100 LAB NO: H19110278-001 STATION:SW-1

PARAMETER	11/11/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	14.82	05/24/11-11/11/19	O	86	86	3.9	15.0	10.9	10.8	2	2.0	
Field pH (s.u.)	8.11	05/24/11-11/11/19	O	85	85	5.3	8.7	7.9	8.1	0.6	0.4	
Field SC (umhos/cm)	341	05/24/11-11/11/19	O	86	86	176.0	363.0	282.9	309.5	53.1	1.1	
Water Temp (Deg C)	0.01	05/24/11-11/11/19	O	86	86	-1.0	15.5	0.7	4.1	4.7	0.1	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

TDS (mg/L)	193	05/24/11-11/11/19	O	78	78	107.0	227.0	169.2	181	27.2	0.9	
TSS (mg/L)	< 4	05/30/12-11/11/19	O	74	29	4.0	43.0					
Alkalinity (mg/L)	180	05/24/11-11/11/19	O	78	78	87.0	200.0	152.4	170	31.3	0.9	
Calcium (mg/L)	49	04/24/19-11/11/19	O	8	8	24.0	49.0	39.3	43	10.1	1.0	H
Chloride (mg/L)	2	05/24/11-11/11/19	O	78	77	< 1	5.0	1.3	1	0.7	0.9	
Fluoride (mg/L)	< 0.1	05/24/11-11/11/19	O	78	24	0.1	0.2					
Hardness (mg/L)	183	05/24/11-11/11/19	O	77	76	< 7	199.0	144.8	164	35.2	1.1	
Magnesium (mg/L)	15	04/24/19-11/11/19	O	8	8	7.0	15.0	10.4	11.5	2.8	1.6	H
Potassium (mg/L)	1	04/24/19-11/11/19	O	8	7	1.0	2.0	1.2	1	0.5	0.4	L
Sodium (mg/L)	2	04/24/19-11/11/19	O	8	8	1.0	2.0	1.8	2	0.3	0.6	H
Sulfate (mg/L)	7	05/24/11-11/11/19	O	78	78	2.0	18.0	5.2	5	2.1	0.9	
N+N (mg/L)	0.05	05/24/11-11/11/19	O	78	36	< 0	0.2					
Phosphorus (mg/L)	0.007	04/24/19-11/11/19	O	8	8	0.0	0.1	0.0	0	0	0.0	
Total N Pers (mg/L)	0.11	04/29/15-11/11/19	O	52	48	< 0	1.1	0.1	0.1	0.2	0.1	
Aluminum (DIS) (mg/L)	< 0	04/24/19-11/11/19	O	8	3	< 0	0.4					
Antimony (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0005					
Arsenic (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	1	< 0	< .001					
Barium (TRC) (mg/L)	0.108	04/24/19-11/11/19	O	8	8	0.1	0.1	0.1	0.1	0	0.0	
Beryllium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0008					
Cadmium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	: .00003					
Chromium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .01					
Cobalt (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .01					
Copper (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	1	< 0	0.0					
Iron (TRC) (mg/L)	0.19	04/24/19-11/11/19	O	8	8	0.1	2.1	0.3	0.2	0.7	0.1	
Lead (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	2	< 0	0.0					
Manganese (TRC) (mg/L)	0.019	04/24/19-11/11/19	O	8	8	0.0	0.1	0.0	0	0	0.0	
Mercury (TRC) (ug/L)	< 0	04/24/19-11/11/19	O	8	3	< 0	0.0					
Molybdenum (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .002					
Nickel (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	2	< 0	0.0					
Selenium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0002					
Silver (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0002					
Strontium (TRC) (mg/L)	0.13	04/24/19-11/11/19	O	8	8	0.1	0.1	0.1	0.1	0	0.0	
Thallium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0002					
Uranium (TRC) (mg/L)	0.0004	04/24/19-11/11/19	O	8	8	0.0	0.0	0.0	0	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Zinc (TRC) (mg/L)	0.002	04/24/19-11/11/19	O	8	4	0.0	0.0					

SAMPLE NO BBC-1911-114 LAB NO: z | STATION:SW-10

11/11/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	11.89	08/25/11-06/13/17	OBS	14	14	6.6	12.6	9.8	10.6	2.3	0.9	
Field pH (s.u.)	8.08	08/25/11-06/13/17	OBS	14	14	7.8	8.8	8.3	8.4	0.5	0.5	
Field SC (umhos/cm)	443	08/25/11-06/13/17	OBS	14	14	369.0	438.0	414.4	418.3	21.1	1.4	H
Flow (Cubic Ft Sec)	0	08/25/11-06/13/17	OBS	14	14	0.2	1.9	0.6	0.5	2.9	0.2	L
Water Temp (Deg C)	0.01	08/25/11-06/13/17	OBS	14	14	0.0	18.6	6.5	11.8	6.3	1.0	L

SAMPLE NO BBC-1911-106 LAB NO: H19110278-005 | STATION:SW-11

11/11/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	12.19	05/25/11-11/11/19	O	34	34	7.0	15.4	10.8	11.2	1.9	0.7	
Field pH (s.u.)	8.27	05/25/11-11/11/19	O	34	34	7.5	8.7	8.2	8.3	0.3	0.2	
Field SC (umhos/cm)	458	05/25/11-11/11/19	O	34	34	312.0	497.0	403.7	409.5	40.9	1.3	
Flow (Cubic Ft Sec)	0	05/25/11-11/11/19	O	26	26	0.0	21.4	0.6	1	4.1	0.1	L
Water Temp (Deg C)	0.04	05/25/11-11/11/19	O	34	34	-0.4	16.3	0.7	6.3	5.4	0.1	
TDS (mg/L)	262	05/25/11-11/11/19	O	34	34	166.0	282.0	230.5	235	24.3	1.3	
TSS (mg/L)	< 4	05/29/12-11/11/19	O	30	13	< 4	68.0					
Alkalinity (mg/L)	230	05/25/11-11/11/19	O	34	34	160.0	250.0	204.3	210	19.7	1.3	
Calcium (mg/L)	58	06/18/19-11/11/19	O	3	3	50.0	58.0	53.6	53	4	1.1	H
Chloride (mg/L)	1	05/25/11-11/11/19	O	34	26	1.0	2.0	1.2	1	0.4	0.4	L
Fluoride (mg/L)	0.2	05/25/11-11/11/19	O	34	34	0.1	0.2	0.2	0.2	0	0.0	H
Hardness (mg/L)	261	05/25/11-11/11/19	O	34	34	156.0	267.0	217.9	226	26.9	1.6	
Magnesium (mg/L)	28	06/18/19-11/11/19	O	3	3	20.0	28.0	23.4	23	4	1.1	H
Potassium (mg/L)	1	06/18/19-11/11/19	O	3	3	1.0	1.0	1.0	1	0	0.0	H
Sodium (mg/L)	3	06/18/19-11/11/19	O	3	3	2.0	3.0	2.6	3	0.6	0.6	H
Sulfate (mg/L)	27	05/25/11-11/11/19	O	34	34	9.0	46.0	19.5	20.5	7.7	1.0	
N+N (mg/L)	0.12	05/25/11-11/11/19	O	34	31	0.0	0.2	0.1	0.1	0.1	0.6	
Phosphorus (mg/L)	0.01	06/18/19-11/11/19	O	3	3	0.0	0.0	0.0	0	0	0.0	L
Total N Pers (mg/L)	0.21	06/24/15-11/11/19	O	18	18	0.1	0.5	0.2	0.2	0.1	0.1	
Aluminum (DIS) (mg/L)	< 0	06/18/19-11/11/19	O	3	0	< 0	< .009					
Antimony (TRC) (mg/L)	< 0	06/18/19-11/11/19	O	3	0	< 0	< .0005					
Arsenic (TRC) (mg/L)	< 0	06/18/19-11/11/19	O	3	0	< 0	< .001					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Barium (TRC) (mg/L)	0.109	06/18/19-11/11/19	O	3	3	0.1	0.1	0.1	0.1	0	0.0	
Beryllium (TRC) (mg/L)	< 0	06/18/19-11/11/19	O	3	0	< 0	< .0008					
Cadmium (TRC) (mg/L)	< 0	06/18/19-11/11/19	O	3	0	< 0	: .00003					
Chromium (TRC) (mg/L)	< 0	06/18/19-11/11/19	O	3	0	< 0	< .01					
Cobalt (TRC) (mg/L)	< 0	06/18/19-11/11/19	O	3	0	< 0	< .01					
Copper (TRC) (mg/L)	< 0	06/18/19-11/11/19	O	3	0	< 0	< .002					
Iron (TRC) (mg/L)	0.09	06/18/19-11/11/19	O	3	3	0.1	0.4	0.2	0.2	0.2	0.5	L
Lead (TRC) (mg/L)	< 0	06/18/19-11/11/19	O	3	1	< 0	0.0					
Manganese (TRC) (mg/L)	< 0	06/18/19-11/11/19	O	3	2	< 0	0.0	0.0	0	0	0.0	L
Mercury (TRC) (ug/L)	< 0	06/18/19-11/11/19	O	3	0	< 0	< .005					
Molybdenum (TRC) (mg/L)	< 0	06/18/19-11/11/19	O	3	0	< 0	< .002					
Nickel (TRC) (mg/L)	< 0	06/18/19-11/11/19	O	3	0	< 0	< .001					
Selenium (TRC) (mg/L)	< 0	06/18/19-11/11/19	O	3	0	< 0	< .0002					
Silver (TRC) (mg/L)	< 0	06/18/19-11/11/19	O	3	0	< 0	< .0002					
Strontium (TRC) (mg/L)	0.186	06/18/19-11/11/19	O	3	3	0.2	0.2	0.2	0.2	0	0.0	H
Thallium (TRC) (mg/L)	< 0	06/18/19-11/11/19	O	3	0	< 0	< .0002					
Uranium (TRC) (mg/L)	0.0011	06/18/19-11/11/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Zinc (TRC) (mg/L)	0.004	06/18/19-11/11/19	O	3	2	0.0	< .005	0.0	0	0	0.0	L

SAMPLE NO BBC-1911-101 LAB NO: H19110278-002 STATION:SW-2

PARAMETER	11/11/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	14.3	05/24/11-11/11/19	O	84	84	6.4	16.2	11.0	10.9	1.7	1.9	
Field pH (s.u.)	7.96	05/24/11-11/11/19	O	83	83	0.0	8.7	6.9	8.1	1	1.0	
Field SC (umhos/cm)	300	05/24/11-11/11/19	O	84	84	156.0	388.0	275.4	299.5	53.9	0.5	
Water Temp (Deg C)	0	05/24/11-11/11/19	O	84	84	-1.0	15.8	0.3	3.3	4.9	0.1	
TDS (mg/L)	169	05/24/11-11/11/19	O	78	78	112.0	223.0	164.7	173	25.2	0.2	
TSS (mg/L)	< 4	05/30/12-11/11/19	O	74	20	< 4	105.0					
Alkalinity (mg/L)	160	05/24/11-11/11/19	O	78	78	80.0	200.0	149.6	160	27.8	0.4	
Calcium (mg/L)	44	04/24/19-11/11/19	O	8	8	25.0	48.0	39.0	43.5	8.2	0.6	
Chloride (mg/L)	1	05/24/11-11/11/19	O	78	76	1.0	5.0	1.3	1	0.6	0.5	L
Fluoride (mg/L)	< 0.1	05/24/11-11/11/19	O	78	1	< 0.1	0.4					
Hardness (mg/L)	161	05/24/11-11/11/19	O	78	77	< 7	202.0	143.5	160.5	32.6	0.5	
Magnesium (mg/L)	13	04/24/19-11/11/19	O	8	8	6.0	13.0	9.7	11	2.2	1.5	H
Potassium (mg/L)	1	04/24/19-11/11/19	O	8	7	1.0	1.0	1.0	1	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Sodium (mg/L)	2	04/24/19-11/11/19	O	8	8	2.0	2.0	2.0	2	0	0.0	H
Sulfate (mg/L)	6	05/24/11-11/11/19	O	78	78	2.0	9.0	4.9	5	1.5	0.7	
N+N (mg/L)	0.04	05/24/11-11/11/19	O	78	36	< 0	0.1					
Phosphorus (mg/L)	0.006	04/24/19-11/11/19	O	8	8	0.0	0.1	0.0	0	0	0.0	
Total N Pers (mg/L)	0.1	04/29/15-11/11/19	O	52	46	< 0	1.4	0.1	0.1	0.2	0.0	
Aluminum (DIS) (mg/L)	< 0	04/24/19-11/11/19	O	8	3	< 0	0.5					
Antimony (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0005					
Arsenic (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	1	< 0	< .001					
Barium (TRC) (mg/L)	0.104	04/24/19-11/11/19	O	8	8	0.1	0.1	0.1	0.1	0	0.0	
Beryllium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0008					
Cadmium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	: .00003					
Chromium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .01					
Cobalt (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .01					
Copper (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	1	< 0	0.0					
Iron (TRC) (mg/L)	0.16	04/24/19-11/11/19	O	8	8	0.1	1.5	0.2	0.1	0.4	0.1	
Lead (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	1	< 0	0.0					
Manganese (TRC) (mg/L)	0.008	04/24/19-11/11/19	O	8	8	0.0	0.0	0.0	0	0	0.0	
Mercury (TRC) (ug/L)	< 0	04/24/19-11/11/19	O	8	2	< 0	0.0					
Molybdenum (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .002					
Nickel (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	2	< 0	0.0					
Selenium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0002					
Silver (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0002					
Strontium (TRC) (mg/L)	0.119	04/24/19-11/11/19	O	8	8	0.1	0.1	0.1	0.1	0	0.0	
Thallium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0002					
Uranium (TRC) (mg/L)	0.0003	04/24/19-11/11/19	O	8	8	0.0	0.0	0.0	0	0	0.0	H
Zinc (TRC) (mg/L)	0.002	04/24/19-11/11/19	O	8	4	0.0	0.0					

SAMPLE NO BBC-1911-108 LAB NO: H19110278-006

STATION:SW-3

11/11/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	13.49	05/24/11-11/11/19	O	39	39	6.0	13.5	9.9	9.7	1.6	2.3	H
Field pH (s.u.)	7.99	05/24/11-11/11/19	O	39	39	7.9	8.7	8.3	8.3	0.2	1.4	
Field SC (umhos/cm)	421	05/24/11-11/11/19	O	39	39	238.0	423.0	374.8	390	42.1	1.1	
Water Temp (Deg C)	-0.01	05/24/11-11/11/19	O	39	39	0.0	14.5	2.9	9.2	4.7	0.6	L
TDS (mg/L)	239	05/24/11-11/11/19	O	37	37	149.0	255.0	217.7	223	21.1	1.0	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

TSS (mg/L)	< 4	05/30/12-11/11/19	O	34	15	< 4	16.0					
Alkalinity (mg/L)	200	05/24/11-11/11/19	O	37	37	120.0	210.0	194.4	200	17.2	0.3	
Calcium (mg/L)	50	04/23/19-11/11/19	O	8	8	27.0	52.0	44.5	48	7.9	0.7	
Chloride (mg/L)	5	05/24/11-11/11/19	O	37	35	1.0	5.0	1.7	2	1	3.3	*H
Fluoride (mg/L)	0.2	05/24/11-11/11/19	O	37	37	0.1	0.2	0.2	0.2	0	0.0	H
Hardness (mg/L)	236	05/24/11-11/11/19	O	37	37	116.0	236.0	205.2	215	23.2	1.3	H
Magnesium (mg/L)	27	04/23/19-11/11/19	O	8	8	12.0	27.0	21.5	23.5	4.5	1.2	H
Potassium (mg/L)	1	04/23/19-11/11/19	O	8	6	1.0	2.0	1.1	1	0.4	0.2	L
Sodium (mg/L)	2	04/23/19-11/11/19	O	8	8	1.0	2.0	1.8	2	0.4	0.4	H
Sulfate (mg/L)	24	05/24/11-11/11/19	O	37	37	5.0	26.0	15.8	17	5.2	1.6	
N+N (mg/L)	0.06	05/24/11-11/11/19	O	37	30	< 0	0.1	0.0	0.1	0	0.0	
Phosphorus (mg/L)	0.007	04/23/19-11/11/19	O	8	8	0.0	0.1	0.0	0	0	0.0	
Total N Pers (mg/L)	0.12	06/24/15-11/11/19	O	24	23	< 0	0.6	0.1	0.1	0.1	0.2	
Aluminum (DIS) (mg/L)	< 0	04/23/19-11/11/19	O	8	2	< 0	0.0					
Antimony (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .0005					
Arsenic (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .001					
Barium (TRC) (mg/L)	0.147	04/23/19-11/11/19	O	8	8	0.1	0.2	0.2	0.1	0	0.0	
Beryllium (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .0008					
Cadmium (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	1	< 0	0.0					
Chromium (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .01					
Cobalt (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .01					
Copper (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .002					
Iron (TRC) (mg/L)	0.04	04/23/19-11/11/19	O	8	8	0.0	0.7	0.1	0.1	0.2	0.2	
Lead (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	1	< 0	0.0					
Manganese (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	1	< 0	0.0					
Mercury (TRC) (ug/L)	< 0	04/23/19-11/11/19	O	8	1	< 0	0.0					
Molybdenum (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .002					
Nickel (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .001					
Selenium (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .0002					
Silver (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .0002					
Strontium (TRC) (mg/L)	0.119	04/23/19-11/11/19	O	8	8	0.1	0.1	0.1	0.1	0	0.0	
Thallium (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .0002					
Uranium (TRC) (mg/L)	0.0006	04/23/19-11/11/19	O	8	8	0.0	0.0	0.0	0	0	0.0	
Zinc (TRC) (mg/L)	0.003	04/23/19-11/11/19	O	8	4	< 0	0.0					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

SAMPLE NO BBC-1911-104 LAB NO: z | STATION:SW-4

PARAMETER	11/11/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Cubic Ft Sec)	0	05/25/11-10/23/19	OBS	8	8	0.0	2.0	0.0	0	0.4	0.1	L

SAMPLE NO BBC-1911-111 LAB NO: z | STATION:SW-5

PARAMETER	11/11/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Cubic Ft Sec)	0	05/24/11-03/21/17	OBS	5	5	0.4	4.7	0.8	0.7	1	0.8	L

SAMPLE NO BBC-1911-115 LAB NO: H19110278-010 | STATION:SW-6

PARAMETER	11/12/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	7.17	05/25/11-11/12/19	O	32	32	5.8	14.2	9.6	9.7	1.8	1.3	
Field pH (s.u.)	8.09	05/25/11-11/12/19	O	32	32	6.7	8.7	8.0	8.1	0.4	0.2	
Field SC (umhos/cm)	407	05/25/11-11/12/19	O	32	32	249.0	433.0	389.0	401	33.4	0.5	
Flow (Cubic Ft Sec)	0	05/25/11-11/12/19	O	26	26	0.0	4.1	0.1	0.2	0.8	0.2	L
Water Temp (Deg C)	0.08	05/25/11-11/12/19	O	32	32	0.0	18.3	2.0	6.7	5.7	0.3	
TDS (mg/L)	222	05/25/11-11/12/19	O	32	32	162.0	254.0	223.2	225	17.7	0.1	
TSS (mg/L)	11	05/30/12-11/12/19	O	28	22	4.0	107.0	12.9	10	28.2	0.1	
Alkalinity (mg/L)	220	05/25/11-11/12/19	O	32	32	140.0	240.0	210.7	220	18.1	0.5	
Calcium (mg/L)	51	06/20/19-11/12/19	O	3	3	48.0	51.0	49.3	49	1.3	1.3	H
Chloride (mg/L)	< 1	05/25/11-11/12/19	O	32	7	< 1	2.0					
Fluoride (mg/L)	0.1	05/25/11-11/12/19	O	32	30	0.1	0.2	0.2	0.2	0.1	0.5	L
Hardness (mg/L)	228	05/25/11-11/12/19	O	32	32	119.0	239.0	211.2	216.5	21.6	0.8	
Magnesium (mg/L)	25	06/20/19-11/12/19	O	3	3	20.0	25.0	21.9	21	2.4	1.3	H
Potassium (mg/L)	1	06/20/19-11/12/19	O	3	2	1.0	1.0	1.0	1	0	0.0	H
Sodium (mg/L)	3	06/20/19-11/12/19	O	3	3	3.0	3.0	3.0	3	0	0.0	H
Sulfate (mg/L)	14	05/25/11-11/12/19	O	32	32	6.0	34.0	11.2	11	4.9	0.6	
N+N (mg/L)	0.08	05/25/11-11/12/19	O	32	29	< 0	0.1	0.0	0	0	0.0	
Phosphorus (mg/L)	0.024	06/20/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Total N Pers (mg/L)	0.15	06/24/15-11/12/19	O	16	16	0.1	0.4	0.2	0.2	0.1	0.3	
Aluminum (DIS) (mg/L)	0.024	06/20/19-11/12/19	O	3	1	< 0	0.0					
Antimony (TRC) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .0005					
Arsenic (TRC) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .001					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Barium (TRC) (mg/L)	0.128	06/20/19-11/12/19	O	3	3	0.1	0.1	0.1	0.1	0	0.0	
Beryllium (TRC) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .0008					
Cadmium (TRC) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	: .00003					
Chromium (TRC) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .01					
Cobalt (TRC) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .01					
Copper (TRC) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .002					
Iron (TRC) (mg/L)	0.37	06/20/19-11/12/19	O	3	3	0.4	0.6	0.4	0.4	0.2	0.3	
Lead (TRC) (mg/L)	0.0003	06/20/19-11/12/19	O	3	2	0.0	0.0	0.0	0	0	0.0	H
Manganese (TRC) (mg/L)	0.02	06/20/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	
Mercury (TRC) (ug/L)	< 0	06/20/19-11/12/19	O	3	1	< 0	0.0					
Molybdenum (TRC) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .002					
Nickel (TRC) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .001					
Selenium (TRC) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .0002					
Silver (TRC) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .0002					
Strontium (TRC) (mg/L)	0.165	06/20/19-11/12/19	O	3	3	0.2	0.2	0.2	0.2	0	0.0	
Thallium (TRC) (mg/L)	< 0	06/20/19-11/12/19	O	3	0	< 0	< .0002					
Uranium (TRC) (mg/L)	0.0007	06/20/19-11/12/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Zinc (TRC) (mg/L)	< 0	06/20/19-11/12/19	O	3	1	< 0	0.0					

SAMPLE NO BBC-1911-112 LAB NO: z

STATION:SW-8

PARAMETER	11/11/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	9.29	08/26/11-11/10/16	OBS	14	14	9.1	12.8	10.3	10.2	1.6	0.6	
Field pH (s.u.)	7.64	08/26/11-11/10/16	OBS	14	14	7.3	8.7	8.0	8	0.4	0.8	
Field SC (umhos/cm)	431	08/26/11-11/10/16	OBS	14	14	281.0	443.0	397.6	419	83.8	0.4	
Flow (Cubic Ft Sec)	0	08/26/11-11/10/16	OBS	14	14	0.1	2.7	0.5	0.5	2	0.2	L
Water Temp (Deg C)	0	08/26/11-11/10/16	OBS	14	14	0.0	15.7	2.9	8	5.4	0.5	L

SAMPLE NO BBC-1911-107 LAB NO: z

STATION:SW-9

PARAMETER	11/11/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	14.85	05/25/11-08/19/14	OBS	8	8	7.8	11.2	9.8	10.6	1.8	2.8	H
Field pH (s.u.)	7.44	05/25/11-08/19/14	OBS	8	8	8.0	8.3	8.2	8.2	0.3	2.4	L
Field SC (umhos/cm)	448	05/25/11-08/19/14	OBS	8	8	335.0	441.0	406.6	422	26.6	1.6	H
Flow (Cubic Ft Sec)	0	05/25/11-08/19/14	OBS	8	8	0.4	12.7	1.2	0.8	2.3	0.5	L
Water Temp (Deg C)	0.11	05/25/11-08/19/14	OBS	8	8	0.5	14.9	6.3	10.7	4.6	1.3	L

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: December 12, 2019

SAMPLE NO BBC-1911-102	LAB NO: H19110278-003	STATION:USGS-SC1

11/11/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	13.63	03/24/14-11/11/19	O	68	68	7.1	16.6	11.1	11.1	1.6	1.6	
Field pH (s.u.)	8.02	03/24/14-11/11/19	O	67	67	6.7	8.7	8.0	8.2	0.4	0.0	
Field SC (umhos/cm)	374	03/24/14-11/11/19	O	68	68	137.0	408.0	322.5	342.5	49.6	1.0	
Water Temp (Deg C)	0.01	03/24/14-11/11/19	O	68	68	-1.0	13.1	0.4	2.9	4.2	0.1	
TDS (mg/L)	203	03/24/14-11/11/19	O	66	66	132.0	230.0	188.2	195	19.6	0.8	
TSS (mg/L)	10	03/24/14-11/11/19	O	66	19	< 4	40.0					
Alkalinity (mg/L)	200	03/24/14-11/11/19	O	66	66	120.0	220.0	175.2	185	21.5	1.2	
Calcium (mg/L)	58	04/24/19-11/11/19	O	8	8	37.0	58.0	47.3	50	7.2	1.5	H
Chloride (mg/L)	2	03/24/14-11/11/19	O	66	66	1.0	5.0	1.5	1	0.9	0.6	
Fluoride (mg/L)	< 0.1	03/24/14-11/11/19	O	66	1	< 0.1	< 0 .1					
Hardness (mg/L)	210	03/24/14-11/11/19	O	66	65	< 7	214.0	167.7	184	28.7	1.5	
Magnesium (mg/L)	16	04/24/19-11/11/19	O	8	8	9.0	16.0	11.8	12.5	2.2	1.9	H
Potassium (mg/L)	1	04/24/19-11/11/19	O	8	8	1.0	1.0	1.0	1	0	0.0	H
Sodium (mg/L)	2	04/24/19-11/11/19	O	8	8	2.0	3.0	2.1	2	0.3	0.3	L
Sulfate (mg/L)	8	03/24/14-11/11/19	O	66	66	3.0	8.0	5.7	6	1.4	1.6	H
N+N (mg/L)	0.06	03/24/14-11/11/19	O	66	46	< 0	0.1	0.0	0	0	0.0	
Phosphorus (mg/L)	0.01	04/24/19-11/11/19	O	8	6	< 0	0.1	0.0	0	0	0.0	
Total N Pers (mg/L)	0.11	04/29/15-11/11/19	O	52	42	< 0	1.1	0.1	0.1	0.2	0.1	
Aluminum (DIS) (mg/L)	< 0	04/24/19-11/11/19	O	8	2	< 0	0.1					
Antimony (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0005					
Arsenic (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .001					
Barium (TRC) (mg/L)	0.076	04/24/19-11/11/19	O	8	8	0.1	0.1	0.1	0.1	0	0.0	
Beryllium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0008					
Cadmium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	: .00003					
Chromium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .01					
Cobalt (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .01					
Copper (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .002					
Iron (TRC) (mg/L)	0.34	04/24/19-11/11/19	O	8	8	0.1	1.2	0.2	0.1	0.4	0.3	
Lead (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	2	< 0	0.0					
Manganese (TRC) (mg/L)	0.015	04/24/19-11/11/19	O	8	8	0.0	0.0	0.0	0	0	0.0	
Mercury (TRC) (ug/L)	< 0	04/24/19-11/11/19	O	8	2	< 0	0.0					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Molybdenum (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .002					
Nickel (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	2	< 0	0.0					
Selenium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0002					
Silver (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0002					
Strontium (TRC) (mg/L)	0.152	04/24/19-11/11/19	O	8	8	0.1	0.2	0.1	0.1	0	0.0	
Thallium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0002					
Uranium (TRC) (mg/L)	0.0004	04/24/19-11/11/19	O	8	8	0.0	0.0	0.0	0	0	0.0	H
Zinc (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	3	< 0	0.0					

SAMPLE NO BBC-1911-33 LAB NO: z — STATION:PW-5

PARAMETER	RESULT	11/11/19 COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
SWL (Feet)	311.94	N/A	OBS	0							

SAMPLE NO BBC-1911-39 LAB NO: z — STATION:PZ-01

PARAMETER	RESULT	11/11/19 COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
SWL (Feet)	2.94	N/A	OBS	0							

SAMPLE NO BBC-1911-40 LAB NO: z — STATION:PZ-02

PARAMETER	RESULT	11/11/19 COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
SWL (Feet)	3.01	N/A	OBS	0							

SAMPLE NO BBC-1911-41 LAB NO: z — STATION:PZ-03

PARAMETER	RESULT	11/11/19 COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
SWL (Feet)	4.77	N/A	OBS	0							

SAMPLE NO BBC-1911-42 LAB NO: z — STATION:PZ-04

PARAMETER	RESULT	11/11/19 COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
SWL (Feet)	0	N/A	OBS	0							

SAMPLE NO BBC-1911-43 LAB NO: z — STATION:PZ-05

PARAMETER	RESULT	11/11/19 COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
SWL (Feet)	3.17	N/A	OBS	0							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

SAMPLE NO	BBC-1911-44	LAB NO:	z	STATION:PZ-07A

PARAMETER	11/11/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
SWL (Feet)	2.17	N/A	OBS	0							

SAMPLE NO	BBC-1911-45	LAB NO:	z	STATION:PZ-07B

PARAMETER	11/11/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
SWL (Feet)	3.45	N/A	OBS	0							

SAMPLE NO	BBC-1911-46	LAB NO:	z	STATION:PZ-08

PARAMETER	11/11/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
SWL (Feet)	4.16	N/A	OBS	0							

SAMPLE NO	BBC-1911-47	LAB NO:	z	STATION:PZ-09

PARAMETER	11/11/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
SWL (Feet)	5.53	N/A	OBS	0							

SAMPLE NO	BBC-1911-48	LAB NO:	z	STATION:PZ-10

PARAMETER	11/11/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
SWL (Feet)	8.99	N/A	OBS	0							

SAMPLE NO	BBC-1911-24	LAB NO:	z	STATION:SC12-116

PARAMETER	11/11/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
SWL (Feet)	95.85	N/A	OBS	0							

SAMPLE NO	BBC-1911-119	LAB NO:	z	STATION:SP-5

PARAMETER	11/12/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
Flow (Gallons Per Min)	0	08/28/18-10/24/19	OBS	5	5	0.0	2.6	0.2	0.9	1	0.2 L

SAMPLE NO	BBC-1911-134	LAB NO:	H19110279-009	STATION:DI-Blank

PARAMETER	11/13/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
TDS (mg/L)	< 10	N/A	FB	0							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

TDS (mg/L)	< 10	N/A	FB	0
TDS (mg/L)	< 10	N/A	FB	0
TSS (mg/L)	< 4	N/A	FB	0
TSS (mg/L)	< 10	N/A	FB	0
TSS (mg/L)	< 10	N/A	FB	0
Alkalinity (mg/L)	< 4	N/A	FB	0
Alkalinity (mg/L)	< 4	N/A	FB	0
Alkalinity (mg/L)	< 4	N/A	FB	0
Calcium (mg/L)	< 1	N/A	FB	0
Calcium (mg/L)	< 1	N/A	FB	0
Calcium (mg/L)	< 1	N/A	FB	0
Chloride (mg/L)	< 1	N/A	FB	0
Chloride (mg/L)	< 1	N/A	FB	0
Chloride (mg/L)	< 1	N/A	FB	0
Fluoride (mg/L)	< 0.1	N/A	FB	0
Fluoride (mg/L)	< 0.1	N/A	FB	0
Fluoride (mg/L)	< 0.1	N/A	FB	0
Hardness (mg/L)	< 1	N/A	FB	0
Hardness (mg/L)	< 1	N/A	FB	0
Hardness (mg/L)	2	N/A	FB	0
Magnesium (mg/L)	< 1	N/A	FB	0
Magnesium (mg/L)	< 1	N/A	FB	0
Magnesium (mg/L)	< 1	N/A	FB	0
Potassium (mg/L)	< 1	N/A	FB	0
Potassium (mg/L)	< 1	N/A	FB	0
Potassium (mg/L)	< 1	N/A	FB	0
Sodium (mg/L)	< 1	N/A	FB	0
Sodium (mg/L)	< 1	N/A	FB	0
Sodium (mg/L)	< 1	N/A	FB	0
Sulfate (mg/L)	< 1	N/A	FB	0
Sulfate (mg/L)	< 1	N/A	FB	0
Sulfate (mg/L)	< 1	N/A	FB	0
N+N (mg/L)	< 0	N/A	FB	0
N+N (mg/L)	< 0	N/A	FB	0

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

N+N (mg/L)	< 0	N/A	FB	0
Phosphorus (mg/L)	< 0	N/A	FB	0
Total N Pers (mg/L)	< 0	N/A	FB	0
Aluminum (DIS) (mg/L)	< 0	N/A	FB	0
Aluminum (DIS) (mg/L)	< 0	N/A	FB	0
Aluminum (DIS) (mg/L)	< 0	N/A	FB	0
Antimony (DIS) (mg/L)	< 0	N/A	FB	0
Antimony (TRC) (mg/L)	< 0	N/A	FB	0
Antimony (DIS) (mg/L)	< 0	N/A	FB	0
Arsenic (DIS) (mg/L)	< 0	N/A	FB	0
Arsenic (TRC) (mg/L)	< 0	N/A	FB	0
Arsenic (DIS) (mg/L)	< 0	N/A	FB	0
Barium (DIS) (mg/L)	< 0	N/A	FB	0
Barium (TRC) (mg/L)	< 0	N/A	FB	0
Barium (DIS) (mg/L)	< 0	N/A	FB	0
Beryllium (DIS) (mg/L)	< 0	N/A	FB	0
Beryllium (TRC) (mg/L)	< 0	N/A	FB	0
Beryllium (DIS) (mg/L)	< 0	N/A	FB	0
Cadmium (DIS) (mg/L)	< 0	N/A	FB	0
Cadmium (DIS) (mg/L)	< 0	N/A	FB	0
Cadmium (TRC) (mg/L)	< 0	N/A	FB	0
Chromium (DIS) (mg/L)	< 0	N/A	FB	0
Chromium (DIS) (mg/L)	< 0	N/A	FB	0
Chromium (TRC) (mg/L)	< 0	N/A	FB	0
Cobalt (DIS) (mg/L)	< 0	N/A	FB	0
Cobalt (TRC) (mg/L)	< 0	N/A	FB	0
Cobalt (DIS) (mg/L)	< 0	N/A	FB	0
Copper (TRC) (mg/L)	< 0	N/A	FB	0
Copper (DIS) (mg/L)	< 0	N/A	FB	0
Copper (DIS) (mg/L)	< 0	N/A	FB	0
Iron (TRC) (mg/L)	< 0	N/A	FB	0
Iron (DIS) (mg/L)	0.03	N/A	FB	0
Iron (DIS) (mg/L)	< 0	N/A	FB	0
Lead (TRC) (mg/L)	< 0	N/A	FB	0

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Lead (DIS) (mg/L)	< 0	N/A	FB	0
Lead (DIS) (mg/L)	< 0	N/A	FB	0
Manganese (DIS) (mg/L)	< 0	N/A	FB	0
Manganese (TRC) (mg/L)	< 0	N/A	FB	0
Manganese (DIS) (mg/L)	< 0	N/A	FB	0
Mercury (DIS) (ug/L)	< 0	N/A	FB	0
Mercury (DIS) (ug/L)	< 0	N/A	FB	0
Mercury (TRC) (ug/L)	< 0	N/A	FB	0
Molybdenum (DIS) (mg/L)	< 0	N/A	FB	0
Molybdenum (DIS) (mg/L)	< 0	N/A	FB	0
Molybdenum (TRC) (mg/L)	< 0	N/A	FB	0
Nickel (TRC) (mg/L)	< 0	N/A	FB	0
Nickel (DIS) (mg/L)	< 0	N/A	FB	0
Nickel (DIS) (mg/L)	< 0	N/A	FB	0
Selenium (DIS) (mg/L)	< 0	N/A	FB	0
Selenium (DIS) (mg/L)	< 0	N/A	FB	0
Selenium (TRC) (mg/L)	< 0	N/A	FB	0
Silver (DIS) (mg/L)	< 0	N/A	FB	0
Silver (DIS) (mg/L)	< 0	N/A	FB	0
Silver (TRC) (mg/L)	< 0	N/A	FB	0
Strontium (TRC) (mg/L)	< 0	N/A	FB	0
Strontium (DIS) (mg/L)	< 0	N/A	FB	0
Strontium (DIS) (mg/L)	0.0004	N/A	FB	0
Thallium (DIS) (mg/L)	< 0	N/A	FB	0
Thallium (DIS) (mg/L)	< 0	N/A	FB	0
Thallium (TRC) (mg/L)	< 0	N/A	FB	0
Uranium (DIS) (mg/L)	< 0	N/A	FB	0
Uranium (TRC) (mg/L)	< 0	N/A	FB	0
Uranium (DIS) (mg/L)	< 0	N/A	FB	0
Zinc (DIS) (mg/L)	< 0	N/A	FB	0
Zinc (TRC) (mg/L)	< 0	N/A	FB	0
Zinc (DIS) (mg/L)	< 0	N/A	FB	0

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Black Butte Mine Data Comparison Summary

Report Date: December 12, 2019

SAMPLE NO BBC-1911-13	LAB NO: z	STATION:MW-10

11/11/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
SWL (Feet)	77.31	03/29/16-11/13/19	OBS	15	15	64.9	82.9	74.6	76.9	5.5	0.5	
SWL (Feet)	77.4	03/29/16-11/13/19	O	15	15	64.9	82.9	74.6	76.9	5.5	0.5	
DO (mg/L)	8.14	03/29/16-11/13/19	O	15	15	5.0	9.8	7.3	7.6	1.4	0.6	
EH (Millivolts)	281.13	03/21/18-11/13/19	O	7	7	253.7	297.4	276.1	276.3	16	0.3	
Field pH (s.u.)	7.81	03/29/16-11/13/19	O	15	15	7.6	8.0	7.8	7.9	0.2	0.1	
Field SC (umhos/cm)	356	03/29/16-11/13/19	O	15	15	314.0	364.0	338.6	339	15	1.2	
Water Temp (Deg C)	6.9	03/29/16-11/13/19	O	15	15	5.9	9.7	7.7	7.9	1.1	0.7	
TDS (mg/L)	194	03/29/16-11/13/19	O	15	15	174.0	244.0	194.5	190	16	0.0	
TSS (mg/L)	< 10	03/29/16-11/13/19	O	15	11	< 10	2830.0	68.0	64	712.8	0.1	L
Alkalinity (mg/L)	180	03/29/16-11/13/19	O	15	15	170.0	210.0	180.4	180	9.6	0.0	
Calcium (mg/L)	40	06/20/19-11/13/19	O	3	3	40.0	44.0	42.0	42	2	1.0	L
Chloride (mg/L)	< 1	03/29/16-11/13/19	O	15	3	< 1	4.0					
Fluoride (mg/L)	0.2	03/29/16-11/13/19	O	15	15	0.2	0.5	0.3	0.3	0.1	0.7	L
Hardness (mg/L)	168	03/29/16-11/13/19	O	15	15	156.0	185.0	170.2	168	9.8	0.2	
Magnesium (mg/L)	17	06/20/19-11/13/19	O	3	3	17.0	18.0	17.3	17	0.6	0.5	L
Potassium (mg/L)	2	06/20/19-11/13/19	O	3	3	2.0	2.0	2.0	2	0	0.0	H
Sodium (mg/L)	6	06/20/19-11/13/19	O	3	3	6.0	6.0	6.0	6	0	0.0	H
Sulfate (mg/L)	4	03/29/16-11/13/19	O	15	15	3.0	8.0	4.6	4	1.5	0.4	
N+N (mg/L)	0.55	03/29/16-11/13/19	O	15	15	0.5	0.6	0.5	0.5	0	0.0	
Aluminum (DIS) (mg/L)	0.01	06/20/19-11/13/19	O	3	2	< 0	0.0	0.0	0	0	0.0	
Antimony (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .001					
Barium (DIS) (mg/L)	0.206	06/20/19-11/13/19	O	3	3	0.2	0.2	0.2	0.2	0	0.0	
Beryllium (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .002					
Iron (DIS) (mg/L)	0.03	06/20/19-11/13/19	O	3	2	< 0	0.0	0.0	0	0	0.0	H
Lead (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .0003					
Manganese (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .005					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Mercury (DIS) (ug/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	0.005	06/20/19-11/13/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Nickel (DIS) (mg/L)	0.001	06/20/19-11/13/19	O	3	1	0.0	0.0					
Selenium (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .0002					
Silver (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.983	06/20/19-11/13/19	O	3	3	0.9	1.0	0.9	0.9	0.1	0.6	H
Thallium (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .0002					
Uranium (DIS) (mg/L)	0.0055	06/20/19-11/13/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Zinc (DIS) (mg/L)	0.003	06/20/19-11/13/19	O	3	1	< 0	0.0					

SAMPLE NO BBC-1911-14 LAB NO: z

STATION:MW-11

11/11/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
SWL (Feet)	33.75	03/29/16-11/13/19	OBS	15	15	23.4	37.1	31.7	33.4	3.9	0.5	
SWL (Feet)	33.8	03/29/16-11/13/19	O	15	15	23.4	37.1	31.7	33.4	3.9	0.5	
DO (mg/L)	9.21	03/29/16-11/13/19	O	15	15	5.1	9.6	7.6	7.9	1.4	1.1	
EH (Millivolts)	275.57	03/20/18-11/13/19	O	7	7	255.6	293.8	272.5	275.6	13.8	0.2	
Field pH (s.u.)	7.73	03/29/16-11/13/19	O	15	15	7.4	7.7	7.7	7.7	0.1	0.8	H
Field SC (umhos/cm)	317	03/29/16-11/13/19	O	15	15	295.0	393.0	319.1	315	25	0.1	
Water Temp (Deg C)	8.4	03/29/16-11/13/19	O	15	15	6.7	8.7	7.7	7.8	0.5	1.4	
TDS (mg/L)	184	03/29/16-11/13/19	O	15	15	160.0	238.0	182.6	180	16.3	0.1	
TSS (mg/L)	14	03/29/16-11/13/19	O	15	14	< 10	501.0	50.0	30	154.9	0.2	
Alkalinity (mg/L)	160	03/29/16-11/13/19	O	15	15	150.0	180.0	165.1	160	8.2	0.6	
Calcium (mg/L)	43	06/21/19-11/13/19	O	3	3	43.0	43.0	43.0	43	0	0.0	H
Chloride (mg/L)	< 1	03/29/16-11/13/19	O	15	1	< 1	2.0					
Fluoride (mg/L)	< 0.1	03/29/16-11/13/19	O	15	8	< 0.1	< 0 .1	0.1	0.1	0	0.0	H
Hardness (mg/L)	153	03/29/16-11/13/19	O	15	15	148.0	163.0	156.3	155	5.1	0.7	
Magnesium (mg/L)	11	06/21/19-11/13/19	O	3	3	11.0	11.0	11.0	11	0	0.0	H
Potassium (mg/L)	2	06/21/19-11/13/19	O	3	3	2.0	2.0	2.0	2	0	0.0	H
Sodium (mg/L)	5	06/21/19-11/13/19	O	3	3	4.0	5.0	4.3	4	0.6	1.2	H
Sulfate (mg/L)	5	03/29/16-11/13/19	O	15	15	4.0	31.0	6.4	5	6.7	0.2	
N+N (mg/L)	0.38	03/29/16-11/13/19	O	15	15	0.4	0.5	0.4	0.4	0.1	0.5	
Aluminum (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .009					
Antimony (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .001					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Barium (DIS) (mg/L)	0.161	06/21/19-11/13/19	O	3	3	0.1	0.2	0.2	0.2	0	0.0	H
Beryllium (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .002					
Iron (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .02					
Lead (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0003					
Manganese (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .005					
Mercury (DIS) (ug/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .001					
Selenium (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0002					
Silver (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.319	06/21/19-11/13/19	O	3	3	0.3	0.3	0.3	0.3	0	0.0	L
Thallium (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0002					
Uranium (DIS) (mg/L)	0.0017	06/21/19-11/13/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Zinc (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .002					

SAMPLE NO BBC-1911-219 LAB NO: H19110302-007 STATION:MW-12

PARAMETER	11/13/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
SWL (Feet)	28.02	03/29/16-11/13/19	O	15	15	21.2	31.2	26.5	27.4	2.8	0.5	
SWL (Feet)	27.91	03/29/16-11/13/19	OBS	15	15	21.2	31.2	26.5	27.4	2.8	0.5	
DO (mg/L)	7.98	03/29/16-11/13/19	O	15	15	6.3	9.9	8.3	8.4	1.1	0.3	
EH (Millivolts)	281.4	03/20/18-11/13/19	O	7	7	265.0	304.8	284.7	283.6	15.2	0.2	
Field pH (s.u.)	7.64	03/29/16-11/13/19	O	15	15	7.2	7.6	7.5	7.6	0.1	1.2	H
Field SC (umhos/cm)	412	03/29/16-11/13/19	O	15	15	342.0	437.0	405.5	412	22.8	0.3	
Water Temp (Deg C)	6.5	03/29/16-11/13/19	O	15	15	5.4	7.0	6.3	6.4	0.4	0.4	
TDS (mg/L)	229	03/29/16-11/13/19	O	15	15	210.0	233.0	222.6	223	6.1	1.1	
TSS (mg/L)	< 10	03/29/16-11/13/19	O	15	2	< 4	26.0					
Alkalinity (mg/L)	210	03/29/16-11/13/19	O	15	15	200.0	220.0	211.9	210	6.4	0.3	
Calcium (mg/L)	55	06/21/19-11/13/19	O	3	3	55.0	58.0	56.3	56	1.5	0.9	L
Chloride (mg/L)	< 1	03/29/16-11/13/19	O	15	0	< 1	< 1					
Fluoride (mg/L)	0.1	03/29/16-11/13/19	O	15	15	0.1	0.1	0.1	0.1	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Hardness (mg/L)	211	03/29/16-11/13/19	O	15	15	211.0	239.0	223.5	223	6.9	1.8	L
Magnesium (mg/L)	18	06/21/19-11/13/19	O	3	3	18.0	19.0	18.7	19	0.6	1.1	L
Potassium (mg/L)	< 1	06/21/19-11/13/19	O	3	0	< 1	< 1					
Sodium (mg/L)	2	06/21/19-11/13/19	O	3	3	2.0	2.0	2.0	2	0	0.0	H
Sulfate (mg/L)	12	03/29/16-11/13/19	O	15	15	10.0	13.0	11.6	12	0.9	0.5	
N+N (mg/L)	0.15	03/29/16-11/13/19	O	15	15	0.1	0.2	0.2	0.2	0	0.0	
Aluminum (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .009					
Antimony (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .001					
Barium (DIS) (mg/L)	0.054	06/21/19-11/13/19	O	3	3	0.1	0.1	0.1	0.1	0	0.0	H
Beryllium (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .002					
Iron (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .02					
Lead (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0003					
Manganese (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .005					
Mercury (DIS) (ug/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .001					
Selenium (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0002					
Silver (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.141	06/21/19-11/13/19	O	3	3	0.1	0.1	0.1	0.1	0	0.0	H
Thallium (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0002					
Uranium (DIS) (mg/L)	0.0007	06/21/19-11/13/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Zinc (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .002					

SAMPLE NO BBC-1911-16 LAB NO: z

STATION:MW-13

11/11/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
SWL (Feet)	21.38	03/29/16-11/13/19	OBS	15	15	16.7	27.6	20.8	21.2	2.3	0.2
SWL (Feet)	21.4	03/29/16-11/13/19	O	15	15	16.7	27.6	20.8	21.2	2.3	0.3
DO (mg/L)	7.77	03/29/16-11/13/19	O	15	15	6.3	9.1	7.6	7.8	0.9	0.2
EH (Millivolts)	279.68	03/20/18-11/13/19	O	7	7	267.8	302.2	284.3	280.6	12.9	0.4

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Field pH (s.u.)	7.6	03/29/16-11/13/19	O	15	15	6.3	7.7	7.4	7.6	0.4	0.5	
Field SC (umhos/cm)	427	03/29/16-11/13/19	O	15	15	388.0	458.7	423.7	425	20.2	0.2	
Water Temp (Deg C)	6.6	03/29/16-11/13/19	O	15	15	5.8	7.0	6.4	6.4	0.4	0.5	
TDS (mg/L)	233	03/29/16-11/13/19	O	15	15	221.0	248.0	232.4	231	6.9	0.1	
TSS (mg/L)	37	03/29/16-11/13/19	O	15	11	< 10	319.0	24.7	19	79.6	0.2	
Alkalinity (mg/L)	210	03/29/16-11/13/19	O	15	15	210.0	220.0	215.9	220	5	1.2	L
Calcium (mg/L)	57	06/21/19-11/13/19	O	3	3	57.0	58.0	57.3	57	0.6	0.6	L
Chloride (mg/L)	< 1	03/29/16-11/13/19	O	15	1	< 1	< 1					
Fluoride (mg/L)	< 0.1	03/29/16-11/13/19	O	15	13	< 0.1	< 0 .1	0.1	0.1	0	0.0	H
Hardness (mg/L)	224	03/29/16-11/13/19	O	15	15	222.0	245.0	233.6	233	7.6	1.3	
Magnesium (mg/L)	20	06/21/19-11/13/19	O	3	3	20.0	20.0	20.0	20	0	0.0	H
Potassium (mg/L)	< 1	06/21/19-11/13/19	O	3	0	< 1	< 1					
Sodium (mg/L)	1	06/21/19-11/13/19	O	3	3	1.0	2.0	1.3	1	0.6	0.4	L
Sulfate (mg/L)	15	03/29/16-11/13/19	O	15	15	12.0	18.0	15.3	15	1.5	0.2	
N+N (mg/L)	0.16	03/29/16-11/13/19	O	15	15	0.2	0.3	0.2	0.2	0	0.0	
Aluminum (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .009					
Antimony (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .001					
Barium (DIS) (mg/L)	0.057	06/21/19-11/13/19	O	3	3	0.1	0.1	0.1	0.1	0	0.0	H
Beryllium (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .002					
Iron (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .02					
Lead (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0003					
Manganese (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .005					
Mercury (DIS) (ug/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .001					
Selenium (DIS) (mg/L)	0.0002	06/21/19-11/13/19	O	3	1	0.0	0.0					
Silver (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.102	06/21/19-11/13/19	O	3	3	0.1	0.1	0.1	0.1	0	0.0	H
Thallium (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Uranium (DIS) (mg/L)	0.0005	06/21/19-11/13/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Zinc (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .002					

SAMPLE NO BBC-1911-103 LAB NO: H19110278-004 STATION:SW-14

11/11/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	11.53	04/13/16-11/11/19	O	41	41	7.6	15.0	10.6	10.4	1.7	0.6	
Field pH (s.u.)	8.1	04/13/16-11/11/19	O	40	40	6.1	8.5	8.0	8.1	0.4	0.3	
Field SC (umhos/cm)	414	04/13/16-11/11/19	O	41	41	263.0	439.0	378.5	394	43.7	0.8	
Flow (Cubic Ft Sec)	0.58	02/25/16-11/11/19	O	39	39	0.0	15.5	0.6	1.2	3.6	0.0	
Water Temp (Deg C)	3.9	04/13/16-11/11/19	O	41	41	-0.9	14.7	2.9	7.4	4.6	0.2	
TDS (mg/L)	240	04/13/16-11/11/19	O	39	39	167.0	266.0	223.2	227	17.7	0.9	
TSS (mg/L)	10	04/13/16-11/11/19	O	39	8	< 4	18.0					
Alkalinity (mg/L)	220	04/13/16-11/11/19	O	39	39	130.0	220.0	203.7	210	20	0.8	H
Calcium (mg/L)	57	04/23/19-11/11/19	O	8	8	33.0	57.0	50.2	52.5	7	1.0	H
Chloride (mg/L)	2	04/13/16-11/11/19	O	39	39	1.0	4.0	1.9	2	0.5	0.1	
Fluoride (mg/L)	0.2	04/13/16-11/11/19	O	39	39	0.1	0.2	0.2	0.2	0	0.0	H
Hardness (mg/L)	245	04/13/16-11/11/19	O	39	39	136.0	245.0	209.4	213	20.8	1.7	H
Magnesium (mg/L)	25	04/23/19-11/11/19	O	8	8	13.0	25.0	18.3	18.5	3.2	2.1	H
Potassium (mg/L)	1	04/23/19-11/11/19	O	8	8	1.0	2.0	1.1	1	0.3	0.3	L
Sodium (mg/L)	2	04/23/19-11/11/19	O	8	8	2.0	3.0	2.1	2	0.3	0.3	L
Sulfate (mg/L)	11	04/13/16-11/11/19	O	39	39	6.0	19.0	9.0	8.7	2.8	0.7	
N+N (mg/L)	0.08	04/13/16-11/11/19	O	39	37	0.0	0.3	0.1	0.1	0.1	0.2	
Phosphorus (mg/L)	0.012	04/23/19-11/11/19	O	8	8	0.0	0.0	0.0	0	0	0.0	
Total N Pers (mg/L)	0.2	04/13/16-11/11/19	O	36	35	< 0	1.3	0.2	0.2	0.2	0.1	
Aluminum (DIS) (mg/L)	< 0	04/23/19-11/11/19	O	8	2	< 0	0.0					
Antimony (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .0005					
Arsenic (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .001					
Barium (TRC) (mg/L)	0.122	04/23/19-11/11/19	O	8	8	0.1	0.1	0.1	0.1	0	0.0	H
Beryllium (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .0008					
Cadmium (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	: .00003					
Chromium (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .01					
Cobalt (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .01					
Copper (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .002					
Iron (TRC) (mg/L)	0.17	04/23/19-11/11/19	O	8	8	0.1	0.2	0.1	0.1	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Lead (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .0003					
Manganese (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	5	< 0	0.0	0.0	0	0	0.0	L
Mercury (TRC) (ug/L)	< 0	04/23/19-11/11/19	O	8	3	< 0	0.0					
Molybdenum (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .002					
Nickel (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	1	< 0	< .001					
Selenium (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .0002					
Silver (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .0002					
Strontium (TRC) (mg/L)	0.128	04/23/19-11/11/19	O	8	8	0.1	0.1	0.1	0.1	0	0.0	H
Thallium (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .0002					
Uranium (TRC) (mg/L)	0.0006	04/23/19-11/11/19	O	8	8	0.0	0.0	0.0	0	0	0.0	H
Zinc (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .04					

SAMPLE NO BBC-1911-227 LAB NO: H19110301-013

STATION:RINSATE BLANK

PARAMETER	11/13/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
TDS (mg/L)	< 10	N/A	FB	0							
TSS (mg/L)	< 10	N/A	FB	0							
Alkalinity (mg/L)	< 4	N/A	FB	0							
Calcium (mg/L)	< 1	N/A	FB	0							
Chloride (mg/L)	< 1	N/A	FB	0							
Fluoride (mg/L)	< 0.1	N/A	FB	0							
Hardness (mg/L)	< 1	N/A	FB	0							
Magnesium (mg/L)	< 1	N/A	FB	0							
Potassium (mg/L)	< 1	N/A	FB	0							
Sodium (mg/L)	< 1	N/A	FB	0							
Sulfate (mg/L)	< 1	N/A	FB	0							
N+N (mg/L)	< 0	N/A	FB	0							
Aluminum (DIS) (mg/L)	< 0	N/A	FB	0							
Antimony (DIS) (mg/L)	< 0	N/A	FB	0							
Arsenic (DIS) (mg/L)	< 0	N/A	FB	0							
Barium (DIS) (mg/L)	< 0	N/A	FB	0							
Beryllium (DIS) (mg/L)	< 0	N/A	FB	0							
Cadmium (DIS) (mg/L)	< 0	N/A	FB	0							
Chromium (DIS) (mg/L)	< 0	N/A	FB	0							
Cobalt (DIS) (mg/L)	< 0	N/A	FB	0							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Copper (DIS) (mg/L)	< 0	N/A	FB	0
Iron (DIS) (mg/L)	< 0	N/A	FB	0
Lead (DIS) (mg/L)	< 0	N/A	FB	0
Manganese (DIS) (mg/L)	< 0	N/A	FB	0
Mercury (DIS) (ug/L)	< 0	N/A	FB	0
Molybdenum (DIS) (mg/L)	< 0	N/A	FB	0
Nickel (DIS) (mg/L)	< 0	N/A	FB	0
Selenium (DIS) (mg/L)	< 0	N/A	FB	0
Silver (DIS) (mg/L)	< 0	N/A	FB	0
Strontium (DIS) (mg/L)	< 0	N/A	FB	0
Thallium (DIS) (mg/L)	< 0	N/A	FB	0
Uranium (DIS) (mg/L)	< 0	N/A	FB	0
Zinc (DIS) (mg/L)	< 0	N/A	FB	0

SAMPLE NO BBC-1911-17 LAB NO: z — STATION:MW-14

11/11/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
SWL (Feet)	40.33	11/18/16-01/19/17	OBS	2	2	40.4	41.0	40.7	40.7	12	0.0	L

SAMPLE NO BBC-1911-18 LAB NO: z — STATION:MW-15

11/11/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
SWL (Feet)	40.28	11/18/16-01/19/17	OBS	2	2	40.1	40.9	40.5	40.5	12.6	0.0

SAMPLE NO BBC-1911-109 LAB NO: H19110278-007 — STATION:SW-17

11/11/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	9.26	01/17/18-11/11/19	O	20	20	8.5	12.9	10.2	10.2	1.1	0.9
Field pH (s.u.)	7.54	01/17/18-11/11/19	O	20	20	7.5	8.4	8.1	8.1	0.3	1.7
Field SC (umhos/cm)	463	01/17/18-11/11/19	O	20	20	319.0	488.5	427.9	439	45.5	0.8
Water Temp (Deg C)	0.04	01/17/18-11/11/19	O	20	20	0.0	13.9	2.2	6.2	4.8	0.4
TDS (mg/L)	267	01/17/18-11/11/19	DUP	21	21	191.0	314.0	253.0	260	28.3	0.5
TDS (mg/L)	267	01/17/18-11/11/19	O	21	21	191.0	314.0	253.0	260	28.3	0.5
TSS (mg/L)	< 4	01/17/18-11/11/19	O	21	9	< 4	54.0				
TSS (mg/L)	< 4	01/17/18-11/11/19	DUP	21	9	< 4	54.0				
Alkalinity (mg/L)	210	01/17/18-11/11/19	O	21	21	150.0	230.0	200.8	210	19.4	0.5

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Alkalinity (mg/L)	210	01/17/18-11/11/19	DUP	21	21	150.0	230.0	200.8	210	19.4	0.5	
Calcium (mg/L)	56	04/24/19-11/11/19	O	8	8	38.0	61.0	51.7	54	7.4	0.6	
Calcium (mg/L)	55	04/24/19-11/11/19	DUP	8	8	38.0	61.0	51.7	54	7.4	0.4	
Chloride (mg/L)	7	01/17/18-11/11/19	O	21	21	3.0	14.0	5.0	5	2.8	0.7	
Chloride (mg/L)	7	01/17/18-11/11/19	DUP	21	21	3.0	14.0	5.0	5	2.8	0.7	
Fluoride (mg/L)	0.2	01/17/18-11/11/19	O	21	21	0.1	0.2	0.2	0.2	0	0.0	H
Fluoride (mg/L)	0.2	01/17/18-11/11/19	DUP	21	21	0.1	0.2	0.2	0.2	0	0.0	H
Hardness (mg/L)	251	01/17/18-11/11/19	O	21	21	167.0	262.0	229.4	240	24.5	0.9	
Hardness (mg/L)	249	01/17/18-11/11/19	DUP	21	21	167.0	262.0	229.4	240	24.5	0.8	
Magnesium (mg/L)	27	04/24/19-11/11/19	DUP	8	8	17.0	27.0	22.5	23	3.1	1.4	H
Magnesium (mg/L)	27	04/24/19-11/11/19	O	8	8	17.0	27.0	22.5	23	3.1	1.4	H
Potassium (mg/L)	1	04/24/19-11/11/19	DUP	8	7	1.0	2.0	1.1	1	0.3	0.3	L
Potassium (mg/L)	1	04/24/19-11/11/19	O	8	7	1.0	2.0	1.1	1	0.3	0.3	L
Sodium (mg/L)	3	04/24/19-11/11/19	DUP	8	8	2.0	3.0	2.7	3	0.4	0.7	H
Sodium (mg/L)	3	04/24/19-11/11/19	O	8	8	2.0	3.0	2.7	3	0.4	0.7	H
Sulfate (mg/L)	31	01/17/18-11/11/19	DUP	21	21	12.0	44.0	26.6	26	7.7	0.6	
Sulfate (mg/L)	31	01/17/18-11/11/19	O	21	21	12.0	44.0	26.6	26	7.7	0.6	
N+N (mg/L)	0.11	01/17/18-11/11/19	DUP	21	20	< 0	0.2	0.1	0.1	0.1	0.4	
N+N (mg/L)	0.11	01/17/18-11/11/19	O	21	20	< 0	0.2	0.1	0.1	0.1	0.4	
Phosphorus (mg/L)	0.007	04/24/19-11/11/19	DUP	8	8	0.0	0.0	0.0	0	0	0.0	
Phosphorus (mg/L)	0.006	04/24/19-11/11/19	O	8	8	0.0	0.0	0.0	0	0	0.0	L
Total N Pers (mg/L)	0.21	04/12/18-11/11/19	DUP	18	18	0.1	0.5	0.2	0.2	0.1	0.2	
Total N Pers (mg/L)	0.21	04/12/18-11/11/19	O	18	18	0.1	0.5	0.2	0.2	0.1	0.2	
Aluminum (DIS) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	2	< 0	0.0					
Aluminum (DIS) (mg/L)	< 0	04/24/19-11/11/19	O	8	2	< 0	0.0					
Antimony (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0005					
Antimony (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	0	< 0	< .0005					
Arsenic (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	0	< 0	< .001					
Arsenic (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .001					
Barium (TRC) (mg/L)	0.153	04/24/19-11/11/19	O	8	8	0.1	0.2	0.1	0.2	0	0.0	
Barium (TRC) (mg/L)	0.156	04/24/19-11/11/19	DUP	8	8	0.1	0.2	0.1	0.2	0	0.0	
Beryllium (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	0	< 0	< .0008					
Beryllium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0008					
Cadmium (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	0	< 0	: .00003					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Cadmium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	: .00003					
Chromium (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	0	< 0	< .01					
Chromium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .01					
Cobalt (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	0	< 0	< .01					
Cobalt (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .01					
Copper (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	0	< 0	< .002					
Copper (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .002					
Iron (TRC) (mg/L)	0.11	04/24/19-11/11/19	O	8	8	0.1	0.4	0.2	0.2	0.1	0.9	L
Iron (TRC) (mg/L)	0.12	04/24/19-11/11/19	DUP	8	8	0.1	0.4	0.2	0.2	0.1	0.8	
Lead (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0003					
Lead (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	0	< 0	< .0003					
Manganese (TRC) (mg/L)	0.029	04/24/19-11/11/19	DUP	8	8	0.0	0.0	0.0	0	0	0.0	
Manganese (TRC) (mg/L)	0.029	04/24/19-11/11/19	O	8	8	0.0	0.0	0.0	0	0	0.0	
Mercury (TRC) (ug/L)	< 0	04/24/19-11/11/19	DUP	8	5	< 0	0.0	0.0	0	0	0.0	L
Mercury (TRC) (ug/L)	< 0	04/24/19-11/11/19	O	8	5	< 0	0.0	0.0	0	0	0.0	L
Molybdenum (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .002					
Molybdenum (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	0	< 0	< .002					
Nickel (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	0	< 0	< .001					
Nickel (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .001					
Selenium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0002					
Selenium (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	0	< 0	< .0002					
Silver (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	0	< 0	< .0002					
Silver (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0002					
Strontium (TRC) (mg/L)	0.145	04/24/19-11/11/19	DUP	8	8	0.1	0.2	0.1	0.1	0	0.0	
Strontium (TRC) (mg/L)	0.144	04/24/19-11/11/19	O	8	8	0.1	0.2	0.1	0.1	0	0.0	
Thallium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0002					
Thallium (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	0	< 0	< .0002					
Uranium (TRC) (mg/L)	0.0007	04/24/19-11/11/19	DUP	8	8	0.0	0.0	0.0	0	0	0.0	
Uranium (TRC) (mg/L)	0.0007	04/24/19-11/11/19	O	8	8	0.0	0.0	0.0	0	0	0.0	
Zinc (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	3	< 0	0.0					
Zinc (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	3	< 0	0.0					

SAMPLE NO BBC-1911-105 LAB NO: z

STATION:SW-18

11/11/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Flow (Cubic Ft Sec)	0	N/A	OBS	0

SAMPLE NO BBC-1911-202 LAB NO: H19110301-003 STATION:MW-16

11/11/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
SWL (Feet)	7.38	01/24/18-11/11/19	O	8	8	5.4	8.8	7.2	7.6	1.2	0.1	
SWL (Feet)	7.38	01/24/18-11/11/19	OBS	8	8	5.4	8.8	7.2	7.6	1.2	0.1	
DO (mg/L)	0.2	01/24/18-11/11/19	O	8	8	0.0	0.3	0.1	0.2	0.1	0.8	
EH (Millivolts)	204.58	03/21/18-11/11/19	O	7	7	143.8	204.6	171.6	172.4	19.4	1.7	H
Field pH (s.u.)	7.27	01/24/18-11/11/19	O	8	8	7.1	7.3	7.3	7.3	0.1	0.0	
Field SC (umhos/cm)	619	01/24/18-11/11/19	O	8	8	568.0	653.0	614.8	617.5	27.9	0.2	
Water Temp (Deg C)	6.6	01/24/18-11/11/19	O	8	8	6.4	6.9	6.6	6.6	0.1	0.5	
TDS (mg/L)	378	01/24/18-11/11/19	O	8	8	329.0	395.0	370.6	379	22	0.3	
TSS (mg/L)	16	01/24/18-11/11/19	O	8	6	10.0	82.0	18.1	17	25.2	0.1	
Alkalinity (mg/L)	240	01/24/18-11/11/19	O	8	8	220.0	250.0	241.0	245	10.9	0.1	
Calcium (mg/L)	69	06/20/19-11/11/19	O	3	3	69.0	71.0	70.0	70	1	1.0	L
Chloride (mg/L)	2	01/24/18-11/11/19	O	8	8	1.0	2.0	1.4	1.5	0.5	1.2	H
Fluoride (mg/L)	0.5	01/24/18-11/11/19	O	8	8	0.5	0.5	0.5	0.5	0	0.0	H
Hardness (mg/L)	325	01/24/18-11/11/19	O	8	8	325.0	368.0	338.7	329.5	17.1	0.8	L
Magnesium (mg/L)	37	06/20/19-11/11/19	O	3	3	36.0	37.0	36.7	37	0.6	0.6	H
Potassium (mg/L)	3	06/20/19-11/11/19	O	3	3	3.0	3.0	3.0	3	0	0.0	H
Sodium (mg/L)	4	06/20/19-11/11/19	O	3	3	4.0	4.0	4.0	4	0	0.0	H
Sulfate (mg/L)	91	01/24/18-11/11/19	O	8	8	72.0	107.0	95.1	99	11.5	0.4	
N+N (mg/L)	0.05	01/24/18-11/11/19	O	8	2	< 0	0.1					
Aluminum (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .009					
Antimony (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	0.006	06/20/19-11/11/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Barium (DIS) (mg/L)	0.018	06/20/19-11/11/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Beryllium (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .002					
Iron (DIS) (mg/L)	1.32	06/20/19-11/11/19	O	3	3	1.3	1.3	1.3	1.3	0	0.0	H
Lead (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .0003					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Manganese (DIS) (mg/L)	0.042	06/20/19-11/11/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Mercury (DIS) (ug/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .001					
Selenium (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .0002					
Silver (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.301	06/20/19-11/11/19	O	3	3	0.3	0.3	0.3	0.3	0	0.0	H
Thallium (DIS) (mg/L)	< 0	06/20/19-11/11/19	O	3	0	< 0	< .0002					
Uranium (DIS) (mg/L)	0.0018	06/20/19-11/11/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Zinc (DIS) (mg/L)	0.006	06/20/19-11/11/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H

SAMPLE NO BBC-1911-20 LAB NO: z

STATION:MW-17

11/11/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
SWL (Feet)	52.18	06/14/18-11/13/19	OBS	6	6	44.9	52.2	49.3	50.4	4.9	0.6	H
SWL (Feet)	52.15	06/14/18-11/13/19	O	6	6	44.9	52.2	49.3	50.4	4.9	0.6	H
DO (mg/L)	5.65	06/14/18-11/13/19	O	6	6	5.7	6.8	6.3	6.4	0.9	0.7	L
EH (Millivolts)	276.11	06/14/18-11/13/19	O	6	6	232.9	285.0	261.7	268.3	21.3	0.7	
Field pH (s.u.)	7.72	06/14/18-11/13/19	O	6	6	7.7	7.8	7.7	7.7	0.1	0.0	
Field SC (umhos/cm)	387	06/14/18-11/13/19	O	6	6	358.0	387.0	380.0	385	102.1	0.1	H
Water Temp (Deg C)	7	06/14/18-11/13/19	O	6	6	6.2	7.4	7.0	7	0.4	0.1	
TDS (mg/L)	214	06/14/18-11/13/19	O	6	6	198.0	214.0	208.7	212.5	6.7	0.8	H
TSS (mg/L)	< 10	06/14/18-11/13/19	O	6	1	< 10	15.0					
Alkalinity (mg/L)	200	06/14/18-11/13/19	O	6	6	190.0	200.0	198.3	200	4.1	0.4	H
Calcium (mg/L)	42	06/21/19-11/13/19	O	3	3	42.0	43.0	42.3	42	0.6	0.6	L
Chloride (mg/L)	1	06/14/18-11/13/19	O	6	6	1.0	2.0	1.4	1.5	0.5	0.8	L
Fluoride (mg/L)	0.2	06/14/18-11/13/19	O	6	6	0.2	0.3	0.3	0.3	0.1	0.6	L
Hardness (mg/L)	204	06/14/18-11/13/19	O	6	6	202.0	214.0	208.4	209	5.1	0.9	
Magnesium (mg/L)	24	06/21/19-11/13/19	O	3	3	24.0	24.0	24.0	24	0	0.0	H
Potassium (mg/L)	< 1	06/21/19-11/13/19	O	3	0	< 1	< 1					
Sodium (mg/L)	2	06/21/19-11/13/19	O	3	3	2.0	2.0	2.0	2	0	0.0	H
Sulfate (mg/L)	9	06/14/18-11/13/19	O	6	6	8.0	9.0	8.5	8.5	0.5	1.0	H
N+N (mg/L)	0.37	06/14/18-11/13/19	O	6	6	0.4	0.5	0.4	0.4	0.1	0.6	L
Aluminum (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .009					
Antimony (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0005					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Arsenic (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .001					
Barium (DIS) (mg/L)	0.253	06/21/19-11/13/19	O	3	3	0.3	0.3	0.3	0.3	0	0.0	L
Beryllium (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .002					
Iron (DIS) (mg/L)	0.02	06/21/19-11/13/19	O	3	1	0.0	0.0					
Lead (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0003					
Manganese (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .005					
Mercury (DIS) (ug/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .001					
Selenium (DIS) (mg/L)	0.0012	06/21/19-11/13/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Silver (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.107	06/21/19-11/13/19	O	3	3	0.1	0.1	0.1	0.1	0	0.0	H
Thallium (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0002					
Uranium (DIS) (mg/L)	0.0009	06/21/19-11/13/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Zinc (DIS) (mg/L)	0.009	06/21/19-11/13/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H

SAMPLE NO BBC-1911-225 LAB NO: H19110302-013 STATION:MW-18

11/13/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
SWL (Feet)	16.95	01/24/18-11/13/19	O	7	7	10.1	19.5	16.1	16.9	2.8	0.3	
SWL (Feet)	16.89	01/24/18-11/13/19	OBS	7	7	10.1	19.5	16.1	16.9	2.8	0.3	
DO (mg/L)	8.62	01/24/18-11/13/19	O	7	7	7.8	8.6	8.4	8.5	0.3	0.7	
EH (Millivolts)	278.83	03/21/18-11/13/19	O	6	6	249.1	282.4	270.0	278.8	15.2	0.6	
Field pH (s.u.)	7.75	01/24/18-11/13/19	O	7	7	7.2	7.8	7.7	7.8	0.2	0.4	
Field SC (umhos/cm)	370	01/24/18-11/13/19	O	7	7	355.0	375.0	368.2	370	6.7	0.3	
Water Temp (Deg C)	6.9	01/24/18-11/13/19	O	7	7	4.9	7.4	6.6	6.9	0.9	0.3	
TDS (mg/L)	197	01/24/18-11/13/19	O	7	7	197.0	220.0	205.2	202	7.8	1.0	L
TSS (mg/L)	< 10	01/24/18-11/13/19	O	7	4	< 10	71.0	21.7	18	22	0.5	L
Alkalinity (mg/L)	190	01/24/18-11/13/19	O	7	7	190.0	200.0	194.2	190	5.2	0.8	L
Calcium (mg/L)	46	09/19/19-11/13/19	O	2	2	46.0	47.0	46.5	46.5	0.7	0.7	L
Chloride (mg/L)	< 1	01/24/18-11/13/19	O	7	0	< 1	< 1					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Fluoride (mg/L)	< 0.1	01/24/18-11/13/19	O	7	1	< 0.1	< 0 .1					
Hardness (mg/L)	189	01/24/18-11/13/19	O	7	7	189.0	210.0	197.6	199	7.6	1.1	L
Magnesium (mg/L)	18	09/19/19-11/13/19	O	2	2	18.0	18.0	18.0	18	0	0.0	H
Potassium (mg/L)	< 1	09/19/19-11/13/19	O	2	0	< 1	< 1					
Sodium (mg/L)	2	09/19/19-11/13/19	O	2	2	2.0	2.0	2.0	2	0	0.0	H
Sulfate (mg/L)	8	01/24/18-11/13/19	O	7	7	5.0	8.0	7.3	8	1.1	0.6	H
N+N (mg/L)	0.17	01/24/18-11/13/19	O	7	7	0.2	0.2	0.2	0.2	0	0.0	L
Aluminum (DIS) (mg/L)	< 0	09/19/19-11/13/19	O	2	0	< 0	< .009					
Antimony (DIS) (mg/L)	< 0	09/19/19-11/13/19	O	2	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	< 0	09/19/19-11/13/19	O	2	0	< 0	< .001					
Barium (DIS) (mg/L)	0.103	09/19/19-11/13/19	O	2	2	0.1	0.1	0.1	0.1	0	0.0	H
Beryllium (DIS) (mg/L)	< 0	09/19/19-11/13/19	O	2	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	09/19/19-11/13/19	O	2	0	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	09/19/19-11/13/19	O	2	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	09/19/19-11/13/19	O	2	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	09/19/19-11/13/19	O	2	0	< 0	< .002					
Iron (DIS) (mg/L)	< 0	09/19/19-11/13/19	O	2	0	< 0	< .02					
Lead (DIS) (mg/L)	< 0	09/19/19-11/13/19	O	2	0	< 0	< .0003					
Manganese (DIS) (mg/L)	< 0	09/19/19-11/13/19	O	2	0	< 0	< .005					
Mercury (DIS) (ug/L)	< 0	09/19/19-11/13/19	O	2	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	09/19/19-11/13/19	O	2	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	09/19/19-11/13/19	O	2	0	< 0	< .001					
Selenium (DIS) (mg/L)	0.0003	09/19/19-11/13/19	O	2	2	0.0	0.0	0.0	0	0	0.0	H
Silver (DIS) (mg/L)	< 0	09/19/19-11/13/19	O	2	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.107	09/19/19-11/13/19	O	2	2	0.1	0.1	0.1	0.1	0	0.0	H
Thallium (DIS) (mg/L)	< 0	09/19/19-11/13/19	O	2	0	< 0	< .0002					
Uranium (DIS) (mg/L)	0.0005	09/19/19-11/13/19	O	2	2	0.0	0.0	0.0	0	0	0.0	H
Zinc (DIS) (mg/L)	< 0	09/19/19-11/13/19	O	2	0	< 0	< .002					

SAMPLE NO BBC-1911-222 LAB NO: H19110302-010

STATION:MW-19

11/13/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
SWL (Feet)	14.1	01/24/18-11/13/19	O	8	8	8.5	15.5	12.7	13.8	2.5	0.6	
SWL (Feet)	14.04	01/24/18-11/13/19	OBS	8	8	8.5	15.5	12.7	13.8	2.5	0.6	
DO (mg/L)	8.14	01/24/18-11/13/19	O	8	8	6.7	8.1	7.3	7.3	0.5	1.7	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

EH (Millivolts)	282.14	03/20/18-11/13/19	O	7	7	251.8	340.7	284.6	279	27.4	0.1	
Field pH (s.u.)	7.5	01/24/18-11/13/19	O	8	8	7.5	7.8	7.6	7.5	0.1	0.6	
Field SC (umhos/cm)	402	01/24/18-11/13/19	O	8	8	329.0	417.0	385.9	401	30.6	0.5	
Water Temp (Deg C)	7.4	01/24/18-11/13/19	O	8	8	6.0	8.1	7.1	7.3	0.7	0.4	
TDS (mg/L)	220	01/24/18-11/13/19	O	8	8	202.0	234.0	218.9	220	10.4	0.1	
TSS (mg/L)	17	01/24/18-11/13/19	O	8	6	< 10	37.0	16.7	15	9.5	0.0	
Alkalinity (mg/L)	210	01/24/18-11/13/19	O	8	8	180.0	210.0	202.2	210	10.9	0.7	H
Calcium (mg/L)	51	06/21/19-11/13/19	O	3	3	48.0	51.0	50.0	51	1.7	0.6	H
Chloride (mg/L)	< 1	01/24/18-11/13/19	O	8	1	< 1	< 1					
Fluoride (mg/L)	0.1	01/24/18-11/13/19	O	8	8	0.1	0.1	0.1	0.1	0	0.0	H
Hardness (mg/L)	207	01/24/18-11/13/19	O	8	8	196.0	230.0	215.7	216	12.4	0.7	
Magnesium (mg/L)	19	06/21/19-11/13/19	O	3	3	19.0	19.0	19.0	19	0	0.0	H
Potassium (mg/L)	< 1	06/21/19-11/13/19	O	3	0	< 1	< 1					
Sodium (mg/L)	2	06/21/19-11/13/19	O	3	3	2.0	2.0	2.0	2	0	0.0	H
Sulfate (mg/L)	15	01/24/18-11/13/19	O	8	8	11.0	16.0	14.0	14.5	1.6	0.6	
N+N (mg/L)	0.22	01/24/18-11/13/19	O	8	8	0.2	0.5	0.2	0.2	0.1	0.2	
Aluminum (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	1	< 0	0.0					
Antimony (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .001					
Barium (DIS) (mg/L)	0.091	06/21/19-11/13/19	O	3	3	0.1	0.1	0.1	0.1	0	0.0	H
Beryllium (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .002					
Iron (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	1	< 0	< .02					
Lead (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0003					
Manganese (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .005					
Mercury (DIS) (ug/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .001					
Selenium (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0002					
Silver (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.145	06/21/19-11/13/19	O	3	3	0.1	0.1	0.1	0.1	0	0.0	L

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Thallium (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .0002						
Uranium (DIS) (mg/L)	0.0007	06/21/19-11/13/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H	
Zinc (DIS) (mg/L)	< 0	06/21/19-11/13/19	O	3	0	< 0	< .002						

SAMPLE NO BBC-1911-23 LAB NO: z

STATION:MW-20

11/11/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
SWL (Feet)	21.82	01/24/18-11/13/19	OBS	8	8	18.1	25.9	22.2	21.9	1.9	0.2	
SWL (Feet)	21.82	01/24/18-11/13/19	DUP	8	8	18.1	25.9	22.2	21.9	1.9	0.2	
SWL (Feet)	21.82	01/24/18-11/13/19	O	8	8	18.1	25.9	22.2	21.9	1.9	0.2	
DO (mg/L)	9.14	01/24/18-11/13/19	DUP	8	8	7.1	9.5	8.7	9.1	0.9	0.5	
DO (mg/L)	9.14	01/24/18-11/13/19	O	8	8	7.1	9.5	8.7	9.1	0.9	0.5	
EH (Millivolts)	282.19	03/20/18-11/13/19	DUP	7	7	244.5	282.2	264.2	267.2	14.7	1.2	H
EH (Millivolts)	282.19	03/20/18-11/13/19	O	7	7	244.5	282.2	264.2	267.2	14.7	1.2	H
Field pH (s.u.)	7.74	01/24/18-11/13/19	O	8	8	7.4	7.8	7.7	7.7	0.1	0.4	
Field pH (s.u.)	7.74	01/24/18-11/13/19	DUP	8	8	7.4	7.8	7.7	7.7	0.1	0.4	
Field SC (umhos/cm)	395	01/24/18-11/13/19	O	8	8	364.0	410.0	390.3	393.5	13.6	0.3	
Field SC (umhos/cm)	395	01/24/18-11/13/19	DUP	8	8	364.0	410.0	390.3	393.5	13.6	0.3	
Water Temp (Deg C)	7.7	01/24/18-11/13/19	DUP	8	8	6.7	8.1	7.6	7.8	0.4	0.3	
Water Temp (Deg C)	7.7	01/24/18-11/13/19	O	8	8	6.7	8.1	7.6	7.8	0.4	0.3	
TDS (mg/L)	214	01/24/18-11/13/19	O	8	8	198.0	225.0	213.1	215.5	7.7	0.1	
TDS (mg/L)	215	01/24/18-11/13/19	DUP	8	8	198.0	225.0	213.1	215.5	7.7	0.2	
TSS (mg/L)	206	01/24/18-11/13/19	DUP	8	8	19.0	603.0	134.3	131	196.2	0.4	
TSS (mg/L)	119	01/24/18-11/13/19	O	8	8	19.0	603.0	134.3	131	196.2	0.1	
Alkalinity (mg/L)	200	01/24/18-11/13/19	O	8	8	190.0	290.0	220.1	210	34.4	0.6	
Alkalinity (mg/L)	210	01/24/18-11/13/19	DUP	8	8	190.0	290.0	220.1	210	34.4	0.3	
Calcium (mg/L)	46	06/20/19-11/13/19	DUP	3	3	43.0	46.0	45.0	46	1.5	0.7	H
Calcium (mg/L)	46	06/20/19-11/13/19	O	3	3	43.0	46.0	45.0	46	1.5	0.7	H
Chloride (mg/L)	< 1	01/24/18-11/13/19	DUP	8	0	< 1	< 1					
Chloride (mg/L)	< 1	01/24/18-11/13/19	O	8	0	< 1	< 1					
Fluoride (mg/L)	< 0.1	01/24/18-11/13/19	DUP	8	3	< 0.1	< 0 .1					
Fluoride (mg/L)	< 0.1	01/24/18-11/13/19	O	8	3	< 0.1	< 0 .1					
Hardness (mg/L)	206	01/24/18-11/13/19	O	8	8	194.0	229.0	211.2	210	11.3	0.5	
Hardness (mg/L)	207	01/24/18-11/13/19	DUP	8	8	194.0	229.0	211.2	210	11.3	0.4	
Magnesium (mg/L)	22	06/20/19-11/13/19	O	3	3	21.0	22.0	21.7	22	0.5	0.7	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Magnesium (mg/L)	22	06/20/19-11/13/19	DUP	3	3	21.0	22.0	21.7	22	0.5	0.7 H
Potassium (mg/L)	1	06/20/19-11/13/19	O	3	2	1.0	1.0	1.0	1	0	0.0 H
Potassium (mg/L)	1	06/20/19-11/13/19	DUP	3	2	1.0	1.0	1.0	1	0	0.0 H
Sodium (mg/L)	1	06/20/19-11/13/19	DUP	3	3	1.0	1.0	1.0	1	0	0.0 H
Sodium (mg/L)	1	06/20/19-11/13/19	O	3	3	1.0	1.0	1.0	1	0	0.0 H
Sulfate (mg/L)	9	01/24/18-11/13/19	O	8	8	7.0	10.0	8.8	9	1.1	0.2
Sulfate (mg/L)	9	01/24/18-11/13/19	DUP	8	8	7.0	10.0	8.8	9	1.1	0.2
N+N (mg/L)	0.3	01/24/18-11/13/19	DUP	8	8	0.3	0.4	0.3	0.3	0	0.0
N+N (mg/L)	0.3	01/24/18-11/13/19	O	8	8	0.3	0.4	0.3	0.3	0	0.0
Aluminum (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	1	< 0	0.0				
Aluminum (DIS) (mg/L)	< 0	06/20/19-11/13/19	DUP	3	1	< 0	0.0				
Antimony (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .0005				
Antimony (DIS) (mg/L)	< 0	06/20/19-11/13/19	DUP	3	0	< 0	< .0005				
Arsenic (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .001				
Arsenic (DIS) (mg/L)	< 0	06/20/19-11/13/19	DUP	3	0	< 0	< .001				
Barium (DIS) (mg/L)	0.196	06/20/19-11/13/19	DUP	3	3	0.2	0.2	0.2	0.2	0	0.0
Barium (DIS) (mg/L)	0.201	06/20/19-11/13/19	O	3	3	0.2	0.2	0.2	0.2	0	0.0 H
Beryllium (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .0008				
Beryllium (DIS) (mg/L)	< 0	06/20/19-11/13/19	DUP	3	0	< 0	< .0008				
Cadmium (DIS) (mg/L)	< 0	06/20/19-11/13/19	DUP	3	0	< 0	< .00003				
Cadmium (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .00003				
Chromium (DIS) (mg/L)	< 0	06/20/19-11/13/19	DUP	3	0	< 0	< .01				
Chromium (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .01				
Cobalt (DIS) (mg/L)	< 0	06/20/19-11/13/19	DUP	3	0	< 0	< .01				
Cobalt (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .01				
Copper (DIS) (mg/L)	< 0	06/20/19-11/13/19	DUP	3	0	< 0	< .002				
Copper (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .002				
Iron (DIS) (mg/L)	0.03	06/20/19-11/13/19	DUP	3	0	< 0	< .02				
Iron (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .02				
Lead (DIS) (mg/L)	< 0	06/20/19-11/13/19	DUP	3	0	< 0	< .0003				
Lead (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .0003				
Manganese (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .005				
Manganese (DIS) (mg/L)	< 0	06/20/19-11/13/19	DUP	3	0	< 0	< .005				
Mercury (DIS) (ug/L)	< 0	06/20/19-11/13/19	DUP	3	0	< 0	< .005				

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Mercury (DIS) (ug/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .002					
Molybdenum (DIS) (mg/L)	< 0	06/20/19-11/13/19	DUP	3	0	< 0	< .002					
Nickel (DIS) (mg/L)	0.001	06/20/19-11/13/19	O	3	1	0.0	0.0					
Nickel (DIS) (mg/L)	< 0	06/20/19-11/13/19	DUP	3	1	0.0	0.0					
Selenium (DIS) (mg/L)	0.0002	06/20/19-11/13/19	O	3	2	0.0	0.0	0.0	0	0	0.0	H
Selenium (DIS) (mg/L)	0.0003	06/20/19-11/13/19	DUP	3	2	0.0	0.0	0.0	0	0	0.0	H
Silver (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .0002					
Silver (DIS) (mg/L)	< 0	06/20/19-11/13/19	DUP	3	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.0707	06/20/19-11/13/19	DUP	3	3	0.1	0.1	0.1	0.1	0	0.0	
Strontium (DIS) (mg/L)	0.0713	06/20/19-11/13/19	O	3	3	0.1	0.1	0.1	0.1	0	0.0	H
Thallium (DIS) (mg/L)	< 0	06/20/19-11/13/19	DUP	3	0	< 0	< .0002					
Thallium (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .0002					
Uranium (DIS) (mg/L)	0.0005	06/20/19-11/13/19	O	3	3	0.0	0.0	0.0	0	0	0.0	H
Uranium (DIS) (mg/L)	0.0005	06/20/19-11/13/19	DUP	3	3	0.0	0.0	0.0	0	0	0.0	H
Zinc (DIS) (mg/L)	< 0	06/20/19-11/13/19	O	3	0	< 0	< .002					
Zinc (DIS) (mg/L)	< 0	06/20/19-11/13/19	DUP	3	0	< 0	< .002					

SAMPLE NO BBC-1911-132 LAB NO: H19110279-008

STATION:SP-12

11/13/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	0.55	04/18/18-11/13/19	O	17	17	0.6	10.4	5.2	5.6	2.4	1.9	L
Field pH (s.u.)	7.36	04/18/18-11/13/19	O	17	17	6.8	8.1	7.6	7.7	0.3	0.7	
Field SC (umhos/cm)	454	04/18/18-11/13/19	O	17	17	400.0	515.0	441.5	437	25.6	0.5	
Water Temp (Deg C)	6.7	04/18/18-11/13/19	O	17	17	5.1	8.7	6.6	6.5	1	0.1	
TDS (mg/L)	257	04/18/18-11/13/19	O	18	18	230.0	341.0	250.7	247.5	23.4	0.3	
TSS (mg/L)	65	04/18/18-11/13/19	O	18	11	< 10	187.0	23.2	19	46.4	0.9	
Alkalinity (mg/L)	210	04/18/18-11/13/19	O	18	18	180.0	220.0	201.9	210	11.5	0.7	
Calcium (mg/L)	57	04/23/19-11/13/19	O	8	8	47.0	58.0	53.3	53.5	3.5	1.1	
Chloride (mg/L)	10	04/18/18-11/13/19	O	18	18	5.0	36.0	8.7	8	6.6	0.2	
Fluoride (mg/L)	0.2	04/18/18-11/13/19	O	18	18	0.2	0.2	0.2	0.2	0	0.0	H
Hardness (mg/L)	243	04/18/18-11/13/19	O	18	18	200.0	258.0	233.6	238	14	0.7	
Magnesium (mg/L)	25	04/23/19-11/13/19	O	8	8	20.0	26.0	23.2	23.5	1.9	1.0	
Potassium (mg/L)	1	04/23/19-11/13/19	O	8	8	1.0	5.0	1.3	1	1.3	0.3	L
Sodium (mg/L)	2	04/23/19-11/13/19	O	8	8	2.0	4.0	2.2	2	0.7	0.3	L

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Sulfate (mg/L)	22	04/18/18-11/13/19	O	18	18	13.0	30.0	22.4	22.5	4	0.1
N+N (mg/L)	0.22	04/18/18-11/13/19	O	18	18	0.1	0.7	0.3	0.3	0.2	0.4
Aluminum (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	1	< 0	0.0				
Antimony (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	0	< 0	< .0005				
Arsenic (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	1	< 0	0.0				
Barium (DIS) (mg/L)	0.184	04/23/19-11/13/19	O	8	8	0.2	0.2	0.2	0.2	0	0.0
Beryllium (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	0	< 0	< .0008				
Cadmium (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	0	< 0	: .00003				
Chromium (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	0	< 0	< .01				
Cobalt (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	0	< 0	< .01				
Copper (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	0	< 0	< .002				
Iron (DIS) (mg/L)	0.03	04/23/19-11/13/19	O	8	6	0.0	0.8	0.1	0	0.3	0.1
Lead (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	1	< 0	0.0				
Manganese (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	3	< 0	0.1				
Mercury (DIS) (ug/L)	< 0	04/23/19-11/13/19	O	8	2	< 0	0.0				
Molybdenum (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	0	< 0	< .002				
Nickel (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	1	< 0	0.0				
Selenium (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	2	< 0	< .0002				
Silver (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	0	< 0	< .0002				
Strontium (DIS) (mg/L)	0.113	04/23/19-11/13/19	O	8	8	0.1	0.1	0.1	0.1	0	0.0
Thallium (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	0	< 0	< .0002				
Uranium (DIS) (mg/L)	0.0007	04/23/19-11/13/19	O	8	8	0.0	0.0	0.0	0	0	0.0 H
Zinc (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	1	< 0	0.0				

SAMPLE NO BBC-1911-34 LAB NO: z — STATION:PW-6N

PARAMETER	11/11/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
SWL (Feet)	306.63	N/A	OBS	0							

SAMPLE NO BBC-1911-52 LAB NO: z — STATION:PZ-14

PARAMETER	11/11/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
SWL (Feet)	6.02	N/A	OBS	0							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

SAMPLE NO BBC-1911-53	LAB NO: z	STATION:PZ-15

PARAMETER	11/11/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
SWL (Feet)	4.77	N/A	OBS	0							

SAMPLE NO BBC-1911-123	LAB NO: z	STATION:DS-10

PARAMETER	11/12/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	13.51	N/A	OBS	0							
Field pH (s.u.)	7.51	N/A	OBS	0							
Field SC (umhos/cm)	389	N/A	OBS	0							
Flow (Gallons Per Min)	1.26	N/A	OBS	0							
Water Temp (Deg C)	3.9	N/A	OBS	0							

SAMPLE NO BBC-1911-124	LAB NO: z	STATION:DS-11

PARAMETER	11/12/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	14.8	N/A	OBS	0							
Field pH (s.u.)	7.68	N/A	OBS	0							
Field SC (umhos/cm)	447	N/A	OBS	0							
Flow (Gallons Per Min)	2.6	N/A	OBS	0							
Water Temp (Deg C)	2.3	N/A	OBS	0							

SAMPLE NO BBC-1911-128	LAB NO: z	STATION:DS-7

PARAMETER	11/12/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	13.12	N/A	OBS	0							
Field pH (s.u.)	7.41	N/A	OBS	0							
Field SC (umhos/cm)	263	N/A	OBS	0							
Flow (Gallons Per Min)	4.78	N/A	OBS	0							
Water Temp (Deg C)	6	N/A	OBS	0							

SAMPLE NO BBC-1911-121	LAB NO: z	STATION:DS-8

PARAMETER	11/12/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	10.5	N/A	OBS	0							
Field pH (s.u.)	7.93	N/A	OBS	0							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Field SC (umhos/cm)	457	N/A	OBS	0
Flow (Gallons Per Min)	2.23	N/A	OBS	0
Water Temp (Deg C)	4.3	N/A	OBS	0

SAMPLE NO BBC-1911-122 LAB NO: z STATION:DS-9

11/12/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	14.92	N/A	OBS	0							
Field pH (s.u.)	7.89	N/A	OBS	0							
Field SC (umhos/cm)	372	N/A	OBS	0							
Flow (Gallons Per Min)	3.54	N/A	OBS	0							
Water Temp (Deg C)	2.4	N/A	OBS	0							

SAMPLE NO BBC-1911-113 LAB NO: z STATION:SW-19

11/11/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	9.11	N/A	OBS	0							
Field pH (s.u.)	8.16	N/A	OBS	0							
Field SC (umhos/cm)	412	N/A	OBS	0							
Water Temp (Deg C)	0.49	N/A	OBS	0							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

APPENDIX 2

DATABASE

Analyses Summary Report

Site Name: Black Butte Mine 12/12/2019 10:10:35 AM

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DI-Blank	DS-1	DS-10	DS-11
Water	Sample Date	11/12/2019	11/13/2019	11/13/2019	11/12/2019	11/12/2019	11/12/2019
	Sample Time	10:30:00 AM	12:00:00 PM	12:30:00 PM	10:15:00 AM	1:10:00 PM	1:40:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro
	Lab Number	H19110278-009	H19110279-009	H19110302-006	H19110279-001	z	z
	Sample Number	BBC-1911-116	BBC-1911-134	BBC-1911-217	BBC-1911-118	BBC-1911-123	BBC-1911-124
	Remarks						
Field Parameters	Multiple Units						
Depth To Water							
Dissolved Oxygen					12.02	13.51	14.8
EH							
Field pH					8.17	7.51	7.68
Field Specific Conductivity					259	389	447
Flow							
Flow					NF-ICED	1.26	2.6
Water Temperature					2.2	3.9	2.3
Physical Parameters	mg/L						
Total Dissolved Solids		<10	<10	<10	223		
Total Suspended Solids		<4	<10	<10	311 J		
Major Constituents - Commons Ions	mg/L						
Alkalinity as CaCO3		<4	<4	<4	220		
Calcium (DIS)		<1	<1	<1	55		
Chloride		<1	<1	<1	<1		
Fluoride		<0.1	<0.1	<0.1	0.1		
Hardness as CaCO3		<1	2	<1	223		
Magnesium (DIS)		<1	<1	<1	21		
Potassium (DIS)		<1	<1	<1	<1		
Sodium (DIS)		<1	<1	<1	2		
Sulfate		<1	<1	<1	15		
Nutrients	mg/L						
Nitrate + Nitrite as N		<0.01	<0.01	<0.01	0.13		
Phosphorus (TOT)		<0.003					
Total Nitrogen as N (Persulfate)		<0.04					
Metals - Trace Constituents	Multiple Units						
Aluminum (DIS)		<0.009	<0.009	<0.009	0.024		
Antimony (DIS)			<0.0005	<0.0005	<0.0005		
Antimony (TRC)		<0.0005					
Arsenic (DIS)			<0.001	<0.001	<0.001		
Arsenic (TRC)		<0.001					
Barium (DIS)			<0.003	<0.003	0.062		

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DI-Blank	DS-1	DS-10	DS-11
Water	Sample Date	11/12/2019	11/13/2019	11/13/2019	11/12/2019	11/12/2019	11/12/2019
	Sample Time	10:30:00 AM	12:00:00 PM	12:30:00 PM	10:15:00 AM	1:10:00 PM	1:40:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro
	Lab Number	H19110278-009	H19110279-009	H19110302-006	H19110279-001	z	z
	Sample Number	BBC-1911-116	BBC-1911-134	BBC-1911-217	BBC-1911-118	BBC-1911-123	BBC-1911-124
	Remarks						

Metals - Trace Constituents	Multiple Units					
Barium (TRC)	<0.003					
Beryllium (DIS)		<0.0008	<0.0008	<0.0008		
Beryllium (TRC)	<0.0008					
Cadmium (DIS)		<0.00003	<0.00003	<0.00003		
Cadmium (TRC)	<0.00003					
Chromium (DIS)		<0.01	<0.01	<0.01		
Chromium (TRC)	<0.01					
Cobalt (DIS)		<0.01	<0.01	<0.01		
Cobalt (TRC)	<0.01					
Copper (DIS)		<0.002	<0.002	<0.002		
Copper (TRC)	<0.002					
Iron (DIS)		0.03	<0.02	0.03		
Iron (TRC)	<0.02					
Lead (DIS)		<0.0003	<0.0003	<0.0003		
Lead (TRC)	<0.0003					
Manganese (DIS)		<0.005	<0.005	<0.005		
Manganese (TRC)	<0.005					
Mercury (DIS)		<0.005	<0.005	<0.005		
Mercury (TRC)	<0.005					
Molybdenum (DIS)		<0.002	<0.002	<0.002		
Molybdenum (TRC)	<0.002					
Nickel (DIS)		<0.001	<0.001	<0.001		
Nickel (TRC)	<0.001					
Selenium (DIS)		<0.0002	<0.0002	<0.0002		
Selenium (TRC)	<0.0002					
Silver (DIS)		<0.0002	<0.0002	<0.0002		
Silver (TRC)	<0.0002					
Strontium (DIS)		0.0004	<0.0002	0.111		
Strontium (TRC)	<0.0002					
Thallium (DIS)		<0.0002	<0.0002	<0.0002		
Thallium (TRC)	<0.0002					
Uranium (DIS)		<0.0002	<0.0002	0.0007		
Uranium (TRC)	<0.0002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	DI-Blank	DI-Blank	DI-Blank	DS-1	DS-10	DS-11
Water	Sample Date	11/12/2019	11/13/2019	11/13/2019	11/12/2019	11/12/2019	11/12/2019
	Sample Time	10:30:00 AM	12:00:00 PM	12:30:00 PM	10:15:00 AM	1:10:00 PM	1:40:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro
	Lab Number	H19110278-009	H19110279-009	H19110302-006	H19110279-001	z	z
	Sample Number	BBC-1911-116	BBC-1911-134	BBC-1911-217	BBC-1911-118	BBC-1911-123	BBC-1911-124
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Zinc (DIS)		<0.002	<0.002	0.002		
	Zinc (TRC)	<0.002					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DS-2	DS-3	DS-4	DS-7	DS-8	DS-9
Water	Sample Date	11/12/2019	11/11/2019	11/12/2019	11/12/2019	11/12/2019	11/12/2019
	Sample Time	11:30:00 AM	4:30:00 PM	2:40:00 PM	3:55:00 PM	12:40:00 PM	12:55:00 PM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1911-120	BBC-1911-117	BBC-1911-127	BBC-1911-128	BBC-1911-121	BBC-1911-122
	Remarks						
Field Parameters	Multiple Units						
	Depth To Water						
	Dissolved Oxygen	16.7			13.12	10.5	14.92
	EH						
	Field pH	7.61			7.41	7.93	7.89
	Field Specific Conductivity	388			263	457	372
	Flow						
	Flow	0.26	NF-ICED	NM-ICED	4.78	2.23	3.54
	Water Temperature	0.98			6	4.3	2.4
Physical Parameters	mg/L						
	Total Dissolved Solids						
	Total Suspended Solids						
Major Constituents - Commons Ions	mg/L						
	Alkalinity as CaCO3						
	Calcium (DIS)						
	Chloride						
	Fluoride						
	Hardness as CaCO3						
	Magnesium (DIS)						
	Potassium (DIS)						
	Sodium (DIS)						
	Sulfate						
Nutrients	mg/L						
	Nitrate + Nitrite as N						
	Phosphorus (TOT)						
	Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units						
	Aluminum (DIS)						
	Antimony (DIS)						
	Antimony (TRC)						
	Arsenic (DIS)						
	Arsenic (TRC)						
	Barium (DIS)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DS-2	DS-3	DS-4	DS-7	DS-8	DS-9
Water	Sample Date	11/12/2019	11/11/2019	11/12/2019	11/12/2019	11/12/2019	11/12/2019
	Sample Time	11:30:00 AM	4:30:00 PM	2:40:00 PM	3:55:00 PM	12:40:00 PM	12:55:00 PM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1911-120	BBC-1911-117	BBC-1911-127	BBC-1911-128	BBC-1911-121	BBC-1911-122
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Barium (TRC)						
	Beryllium (DIS)						
	Beryllium (TRC)						
	Cadmium (DIS)						
	Cadmium (TRC)						
	Chromium (DIS)						
	Chromium (TRC)						
	Cobalt (DIS)						
	Cobalt (TRC)						
	Copper (DIS)						
	Copper (TRC)						
	Iron (DIS)						
	Iron (TRC)						
	Lead (DIS)						
	Lead (TRC)						
	Manganese (DIS)						
	Manganese (TRC)						
	Mercury (DIS)						
	Mercury (TRC)						
	Molybdenum (DIS)						
	Molybdenum (TRC)						
	Nickel (DIS)						
	Nickel (TRC)						
	Selenium (DIS)						
	Selenium (TRC)						
	Silver (DIS)						
	Silver (TRC)						
	Strontium (DIS)						
	Strontium (TRC)						
	Thallium (DIS)						
	Thallium (TRC)						
	Uranium (DIS)						
	Uranium (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DS-2	DS-3	DS-4	DS-7	DS-8	DS-9
Water	Sample Date	11/12/2019	11/11/2019	11/12/2019	11/12/2019	11/12/2019	11/12/2019
	Sample Time	11:30:00 AM	4:30:00 PM	2:40:00 PM	3:55:00 PM	12:40:00 PM	12:55:00 PM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1911-120	BBC-1911-117	BBC-1911-127	BBC-1911-128	BBC-1911-121	BBC-1911-122
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Zinc (DIS)						
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 12/12/2019 10:10:35 AM

Sample Type:	Station (Site)	MW-10	MW-10	MW-11	MW-11	MW-12	MW-12
Water	Sample Date	11/11/2019	11/13/2019	11/11/2019	11/13/2019	11/11/2019	11/13/2019
	Sample Time	10:25:00 AM	1:40:00 PM	10:22:00 AM	11:40:00 AM	10:08:00 AM	12:30:00 PM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	z	H19110302-004	z	H19110302-005	z	H19110302-007
	Sample Number	BBC-1911-13	BBC-1911-215	BBC-1911-14	BBC-1911-216	BBC-1911-15	BBC-1911-219
	Remarks						

Field Parameters	Multiple Units					
Depth To Water	77.31	77.4	33.75	33.8	27.91	28.02
Dissolved Oxygen		8.14		9.21		7.98
EH		281.13		275.57		281.4
Field pH		7.81		7.73		7.64
Field Specific Conductivity		356		317		412
Flow						
Flow						
Water Temperature		6.9		8.4		6.5
Physical Parameters	mg/L					
Total Dissolved Solids		194		184		229
Total Suspended Solids		<10		14 J		<10
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3		180		160		210
Calcium (DIS)		40		43		55
Chloride		<1		<1		<1
Fluoride		0.2		<0.1		0.1
Hardness as CaCO3		168		153		211
Magnesium (DIS)		17		11		18
Potassium (DIS)		2		2		<1
Sodium (DIS)		6		5		2
Sulfate		4		5		12
Nutrients	mg/L					
Nitrate + Nitrite as N		0.55		0.38		0.15
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)		0.01		<0.009		<0.009
Antimony (DIS)		<0.0005		<0.0005		<0.0005
Antimony (TRC)						
Arsenic (DIS)		<0.001		<0.001		<0.001
Arsenic (TRC)						
Barium (DIS)		0.206		0.161		0.054

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	MW-10	MW-10	MW-11	MW-11	MW-12	MW-12
Water	Sample Date	11/11/2019	11/13/2019	11/11/2019	11/13/2019	11/11/2019	11/13/2019
	Sample Time	10:25:00 AM	1:40:00 PM	10:22:00 AM	11:40:00 AM	10:08:00 AM	12:30:00 PM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	z	H19110302-004	z	H19110302-005	z	H19110302-007
	Sample Number	BBC-1911-13	BBC-1911-215	BBC-1911-14	BBC-1911-216	BBC-1911-15	BBC-1911-219
	Remarks						
Metals - Trace Constituents	Multiple Units						
Barium (TRC)							
Beryllium (DIS)		<0.0008		<0.0008		<0.0008	
Beryllium (TRC)							
Cadmium (DIS)		<0.00003		<0.00003		<0.00003	
Cadmium (TRC)							
Chromium (DIS)		<0.01		<0.01		<0.01	
Chromium (TRC)							
Cobalt (DIS)		<0.01		<0.01		<0.01	
Cobalt (TRC)							
Copper (DIS)		<0.002		<0.002		<0.002	
Copper (TRC)							
Iron (DIS)		0.03 B		<0.02		<0.02	
Iron (TRC)							
Lead (DIS)		<0.0003		<0.0003		<0.0003	
Lead (TRC)							
Manganese (DIS)		<0.005		<0.005		<0.005	
Manganese (TRC)							
Mercury (DIS)		<0.005		<0.005		<0.005	
Mercury (TRC)							
Molybdenum (DIS)		0.005		<0.002		<0.002	
Molybdenum (TRC)							
Nickel (DIS)		0.001		<0.001		<0.001	
Nickel (TRC)							
Selenium (DIS)		<0.0002		<0.0002		<0.0002	
Selenium (TRC)							
Silver (DIS)		<0.0002		<0.0002		<0.0002	
Silver (TRC)							
Strontium (DIS)		0.983 L		0.319		0.141	
Strontium (TRC)							
Thallium (DIS)		<0.0002		<0.0002		<0.0002	
Thallium (TRC)							
Uranium (DIS)		0.0055		0.0017		0.0007	
Uranium (TRC)							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	MW-10	MW-10	MW-11	MW-11	MW-12	MW-12
Water	Sample Date	11/11/2019	11/13/2019	11/11/2019	11/13/2019	11/11/2019	11/13/2019
	Sample Time	10:25:00 AM	1:40:00 PM	10:22:00 AM	11:40:00 AM	10:08:00 AM	12:30:00 PM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	z	H19110302-004	z	H19110302-005	z	H19110302-007
	Sample Number	BBC-1911-13	BBC-1911-215	BBC-1911-14	BBC-1911-216	BBC-1911-15	BBC-1911-219
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Zinc (DIS)	0.003		<0.002		<0.002	
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 12/12/2019 10:10:36 AM

Sample Type:	Station (Site)	MW-13	MW-13	MW-14	MW-15	MW-16	MW-16
Water	Sample Date	11/11/2019	11/13/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019
	Sample Time	10:03:00 AM	12:45:00 PM	12:03:00 PM	12:06:00 PM	11:36:00 AM	4:15:00 PM
	Lab	Hydro	Energy Labs	Hydro	Hydro	Hydro	Energy Labs
	Lab Number	z	H19110302-009	z	z	z	H19110301-003
	Sample Number	BBC-1911-16	BBC-1911-221	BBC-1911-17	BBC-1911-18	BBC-1911-19	BBC-1911-202
	Remarks						DUPLICATE

Field Parameters	Multiple Units					
Depth To Water	21.38	21.4	40.33	40.28	7.38	7.38
Dissolved Oxygen		7.77				0.2
EH		279.68				204.58
Field pH		7.6				7.27
Field Specific Conductivity		427				619
Flow						
Flow						
Water Temperature		6.6				6.6
Physical Parameters	mg/L					
Total Dissolved Solids		233				378
Total Suspended Solids		37 J				16 J
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3		210				240
Calcium (DIS)		57				69
Chloride		<1				2
Fluoride		<0.1				0.5
Hardness as CaCO3		224				325
Magnesium (DIS)		20				37
Potassium (DIS)		<1				3
Sodium (DIS)		1				4
Sulfate		15				91
Nutrients	mg/L					
Nitrate + Nitrite as N		0.16				0.05
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)		<0.009				<0.009
Antimony (DIS)		<0.0005				<0.0005
Antimony (TRC)						
Arsenic (DIS)		<0.001				0.006
Arsenic (TRC)						
Barium (DIS)		0.057				0.018

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	MW-13	MW-13	MW-14	MW-15	MW-16	MW-16
Water	Sample Date	11/11/2019	11/13/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019
	Sample Time	10:03:00 AM	12:45:00 PM	12:03:00 PM	12:06:00 PM	11:36:00 AM	4:15:00 PM
	Lab	Hydro	Energy Labs	Hydro	Hydro	Hydro	Energy Labs
	Lab Number	z	H19110302-009	z	z	z	H19110301-003
	Sample Number	BBC-1911-16	BBC-1911-221	BBC-1911-17	BBC-1911-18	BBC-1911-19	BBC-1911-202
	Remarks						DUPLICATE
Metals - Trace Constituents	Multiple Units						
Barium (TRC)							
Beryllium (DIS)		<0.0008					<0.0008
Beryllium (TRC)							
Cadmium (DIS)		<0.00003					<0.00003
Cadmium (TRC)							
Chromium (DIS)		<0.01					<0.01
Chromium (TRC)							
Cobalt (DIS)		<0.01					<0.01
Cobalt (TRC)							
Copper (DIS)		<0.002					<0.002
Copper (TRC)							
Iron (DIS)		<0.02					1.32
Iron (TRC)							
Lead (DIS)		<0.0003					<0.0003
Lead (TRC)							
Manganese (DIS)		<0.005					0.042
Manganese (TRC)							
Mercury (DIS)		<0.005					<0.005
Mercury (TRC)							
Molybdenum (DIS)		<0.002					<0.002
Molybdenum (TRC)							
Nickel (DIS)		<0.001					<0.001
Nickel (TRC)							
Selenium (DIS)		0.0002					<0.0002
Selenium (TRC)							
Silver (DIS)		<0.0002					<0.0002
Silver (TRC)							
Strontium (DIS)		0.102					0.301
Strontium (TRC)							
Thallium (DIS)		<0.0002					<0.0002
Thallium (TRC)							
Uranium (DIS)		0.0005					0.0018
Uranium (TRC)							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	MW-13	MW-13	MW-14	MW-15	MW-16	MW-16
Water	Sample Date	11/11/2019	11/13/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019
	Sample Time	10:03:00 AM	12:45:00 PM	12:03:00 PM	12:06:00 PM	11:36:00 AM	4:15:00 PM
	Lab	Hydro	Energy Labs	Hydro	Hydro	Hydro	Energy Labs
	Lab Number	z	H19110302-009	z	z	z	H19110301-003
	Sample Number	BBC-1911-16	BBC-1911-221	BBC-1911-17	BBC-1911-18	BBC-1911-19	BBC-1911-202
	Remarks						DUPLICATE
Metals - Trace Constituents	Multiple Units						
	Zinc (DIS)		<0.002				0.006
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Analyses Summary Report

Site Name: Black Butte Mine 12/12/2019 10:10:36 AM

Sample Type:	Station (Site)	MW-17	MW-17	MW-18	MW-18	MW-19	MW-19
Water	Sample Date	11/11/2019	11/13/2019	11/11/2019	11/13/2019	11/11/2019	11/13/2019
	Sample Time	10:49:00 AM	3:20:00 PM	11:03:00 AM	2:10:00 PM	9:55:00 AM	1:15:00 PM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	z	H19110302-014	z	H19110302-013	z	H19110302-010
	Sample Number	BBC-1911-20	BBC-1911-226	BBC-1911-21	BBC-1911-225	BBC-1911-22	BBC-1911-222
	Remarks						

Field Parameters	Multiple Units					
Depth To Water	52.18	52.15	16.89	16.95	14.04	14.1
Dissolved Oxygen		5.65		8.62		8.14
EH		276.11		278.83		282.14
Field pH		7.72		7.75		7.5
Field Specific Conductivity		387		370		402
Flow						
Flow						
Water Temperature		7		6.9		7.4
Physical Parameters	mg/L					
Total Dissolved Solids		214		197		220
Total Suspended Solids		<10		<10		17 J
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3		200		190		210
Calcium (DIS)		42		46		51
Chloride		1		<1		<1
Fluoride		0.2		<0.1		0.1
Hardness as CaCO3		204		189		207
Magnesium (DIS)		24		18		19
Potassium (DIS)		<1		<1		<1
Sodium (DIS)		2		2		2
Sulfate		9		8		15
Nutrients	mg/L					
Nitrate + Nitrite as N		0.37		0.17		0.22
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)		<0.009		<0.009		<0.009
Antimony (DIS)		<0.0005		<0.0005		<0.0005
Antimony (TRC)						
Arsenic (DIS)		<0.001		<0.001		<0.001
Arsenic (TRC)						
Barium (DIS)		0.253		0.103		0.091

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Sample Type:	Station (Site)	MW-17	MW-17	MW-18	MW-18	MW-19	MW-19
Water	Sample Date	11/11/2019	11/13/2019	11/11/2019	11/13/2019	11/11/2019	11/13/2019
	Sample Time	10:49:00 AM	3:20:00 PM	11:03:00 AM	2:10:00 PM	9:55:00 AM	1:15:00 PM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	z	H19110302-014	z	H19110302-013	z	H19110302-010
	Sample Number	BBC-1911-20	BBC-1911-226	BBC-1911-21	BBC-1911-225	BBC-1911-22	BBC-1911-222
	Remarks						
Metals - Trace Constituents	Multiple Units						
Barium (TRC)							
Beryllium (DIS)		<0.0008		<0.0008		<0.0008	
Beryllium (TRC)							
Cadmium (DIS)		<0.00003		<0.00003		<0.00003	
Cadmium (TRC)							
Chromium (DIS)		<0.01		<0.01		<0.01	
Chromium (TRC)							
Cobalt (DIS)		<0.01		<0.01		<0.01	
Cobalt (TRC)							
Copper (DIS)		<0.002		<0.002		<0.002	
Copper (TRC)							
Iron (DIS)		0.02 B		<0.02		<0.02	
Iron (TRC)							
Lead (DIS)		<0.0003		<0.0003		<0.0003	
Lead (TRC)							
Manganese (DIS)		<0.005		<0.005		<0.005	
Manganese (TRC)							
Mercury (DIS)		<0.005		<0.005		<0.005	
Mercury (TRC)							
Molybdenum (DIS)		<0.002		<0.002		<0.002	
Molybdenum (TRC)							
Nickel (DIS)		<0.001		<0.001		<0.001	
Nickel (TRC)							
Selenium (DIS)		0.0012		0.0003		<0.0002	
Selenium (TRC)							
Silver (DIS)		<0.0002		<0.0002		<0.0002	
Silver (TRC)							
Strontium (DIS)		0.107		0.107		0.145	
Strontium (TRC)							
Thallium (DIS)		<0.0002		<0.0002		<0.0002	
Thallium (TRC)							
Uranium (DIS)		0.0009		0.0005		0.0007	
Uranium (TRC)							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	MW-17	MW-17	MW-18	MW-18	MW-19	MW-19
Water	Sample Date	11/11/2019	11/13/2019	11/11/2019	11/13/2019	11/11/2019	11/13/2019
	Sample Time	10:49:00 AM	3:20:00 PM	11:03:00 AM	2:10:00 PM	9:55:00 AM	1:15:00 PM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	z	H19110302-014	z	H19110302-013	z	H19110302-010
	Sample Number	BBC-1911-20	BBC-1911-226	BBC-1911-21	BBC-1911-225	BBC-1911-22	BBC-1911-222
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Zinc (DIS)	0.009		<0.002		<0.002	
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 12/12/2019 10:10:36 AM

Sample Type:	Station (Site)	MW-1A	MW-1A	MW-1B	MW-1B	MW-20	MW-20
Water	Sample Date	11/11/2019	11/12/2019	11/11/2019	11/11/2019	11/11/2019	11/13/2019
	Sample Time	1:11:00 PM	2:15:00 PM	1:12:00 PM	5:05:00 PM	10:30:00 AM	9:20:00 AM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	z	H19110301-005	z	H19110301-004	z	H19110302-001
	Sample Number	BBC-1911-1	BBC-1911-204	BBC-1911-2	BBC-1911-203	BBC-1911-23	BBC-1911-212
	Remarks				DUPLICATE		
Field Parameters	Multiple Units						
Depth To Water		7.9	7.85	23.86	23.86	21.82	21.82
Dissolved Oxygen			9.38		0.05		9.14
EH			275.86		227.02		282.19
Field pH			7.4		6.34		7.74
Field Specific Conductivity			350		616		395
Flow							
Flow							
Water Temperature			7.3		8.1		7.7
Physical Parameters	mg/L						
Total Dissolved Solids			203		434		214
Total Suspended Solids			129 J		18 J		119 J
Major Constituents - Commons Ions	mg/L						
Alkalinity as CaCO3			170		100		200
Calcium (DIS)			43		58		46
Chloride			1		1		<1
Fluoride			0.2		0.2		<0.1
Hardness as CaCO3			178		266		206
Magnesium (DIS)			17		30		22
Potassium (DIS)			1		3		1
Sodium (DIS)			2		4		1
Sulfate			15		208		9
Nutrients	mg/L						
Nitrate + Nitrite as N			0.03		<0.01		0.3
Phosphorus (TOT)							
Total Nitrogen as N (Persulfate)							
Metals - Trace Constituents	Multiple Units						
Aluminum (DIS)			0.013		<0.009		<0.009
Antimony (DIS)			<0.0005		0.0006		<0.0005
Antimony (TRC)							
Arsenic (DIS)			<0.001		0.062		<0.001
Arsenic (TRC)							
Barium (DIS)			0.167		0.013		0.201

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	MW-1A	MW-1A	MW-1B	MW-1B	MW-20	MW-20
Water	Sample Date	11/11/2019	11/12/2019	11/11/2019	11/11/2019	11/11/2019	11/13/2019
	Sample Time	1:11:00 PM	2:15:00 PM	1:12:00 PM	5:05:00 PM	10:30:00 AM	9:20:00 AM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	z	H19110301-005	z	H19110301-004	z	H19110302-001
	Sample Number	BBC-1911-1	BBC-1911-204	BBC-1911-2	BBC-1911-203	BBC-1911-23	BBC-1911-212
	Remarks				DUPLICATE		
Metals - Trace Constituents	Multiple Units						
Barium (TRC)							
Beryllium (DIS)		<0.0008		<0.0008		<0.0008	
Beryllium (TRC)							
Cadmium (DIS)		<0.00003		<0.00003		<0.00003	
Cadmium (TRC)							
Chromium (DIS)		<0.01		<0.01		<0.01	
Chromium (TRC)							
Cobalt (DIS)		<0.01		0.03		<0.01	
Cobalt (TRC)							
Copper (DIS)		0.006		<0.002		<0.002	
Copper (TRC)							
Iron (DIS)		0.04		17.9		<0.02	
Iron (TRC)							
Lead (DIS)		0.0003		<0.0003		<0.0003	
Lead (TRC)							
Manganese (DIS)		<0.005		0.078		<0.005	
Manganese (TRC)							
Mercury (DIS)		<0.005		<0.005		<0.005	
Mercury (TRC)							
Molybdenum (DIS)		<0.002		<0.002		<0.002	
Molybdenum (TRC)							
Nickel (DIS)		<0.001		0.011		0.001	
Nickel (TRC)							
Selenium (DIS)		0.0002		<0.0002		0.0002	
Selenium (TRC)							
Silver (DIS)		<0.0002		<0.0002		<0.0002	
Silver (TRC)							
Strontium (DIS)		0.102		1.71 L		0.0713	
Strontium (TRC)							
Thallium (DIS)		0.0008		0.0123		<0.0002	
Thallium (TRC)							
Uranium (DIS)		0.001		<0.0002		0.0005	
Uranium (TRC)							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	MW-1A	MW-1A	MW-1B	MW-1B	MW-20	MW-20
Water	Sample Date	11/11/2019	11/12/2019	11/11/2019	11/11/2019	11/11/2019	11/13/2019
	Sample Time	1:11:00 PM	2:15:00 PM	1:12:00 PM	5:05:00 PM	10:30:00 AM	9:20:00 AM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs
	Lab Number	z	H19110301-005	z	H19110301-004	z	H19110302-001
	Sample Number	BBC-1911-1	BBC-1911-204	BBC-1911-2	BBC-1911-203	BBC-1911-23	BBC-1911-212
	Remarks				DUPLICATE		
	Metals - Trace Constituents	Multiple Units					
	Zinc (DIS)	0.002			0.013		<0.002
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	MW-20	MW-2A	MW-2A	MW-2B	MW-2B	MW-3
Water	Sample Date	11/13/2019	11/11/2019	11/12/2019	11/11/2019	11/12/2019	11/11/2019
	Sample Time	9:40:00 AM	12:44:00 PM	9:45:00 AM	12:45:00 PM	10:15:00 AM	12:15:00 PM
	Lab	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs	Hydro
	Lab Number	H19110302-002	z	H19110301-006	z	H19110301-007	z
	Sample Number	BBC-1911-213	BBC-1911-3	BBC-1911-205	BBC-1911-4	BBC-1911-206	BBC-1911-5
	Remarks	DUPLICATE		DUPLICATE			

Field Parameters	Multiple Units					
Depth To Water	21.82	41.98	41.98	41.95	41.98	39.34
Dissolved Oxygen	9.14		7.91		0.2	
EH	282.19		287.03		275.01	
Field pH	7.74		7.35		7.22	
Field Specific Conductivity	395		386		418	
Flow						
Flow						
Water Temperature	7.7		7.5		7.6	
Physical Parameters	mg/L					
Total Dissolved Solids	215		216		235	
Total Suspended Solids	206 J		<10		<10	
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	210		190		190	
Calcium (DIS)	46		44		47	
Chloride	<1		1		1	
Fluoride	<0.1		0.3		0.3	
Hardness as CaCO3	207		203		219	
Magnesium (DIS)	22		23		25	
Potassium (DIS)	1		1		1	
Sodium (DIS)	1		3		3	
Sulfate	9		19		32	
Nutrients	mg/L					
Nitrate + Nitrite as N	0.3		0.42		0.22	
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009		<0.009		<0.009	
Antimony (DIS)	<0.0005		<0.0005		<0.0005	
Antimony (TRC)						
Arsenic (DIS)	<0.001		<0.001		0.004	
Arsenic (TRC)						
Barium (DIS)	0.196		0.087		0.042	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	MW-20	MW-2A	MW-2A	MW-2B	MW-2B	MW-3
Water	Sample Date	11/13/2019	11/11/2019	11/12/2019	11/11/2019	11/12/2019	11/11/2019
	Sample Time	9:40:00 AM	12:44:00 PM	9:45:00 AM	12:45:00 PM	10:15:00 AM	12:15:00 PM
	Lab	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs	Hydro
	Lab Number	H19110302-002	z	H19110301-006	z	H19110301-007	z
	Sample Number	BBC-1911-213	BBC-1911-3	BBC-1911-205	BBC-1911-4	BBC-1911-206	BBC-1911-5
	Remarks	DUPLICATE		DUPLICATE			
Metals - Trace Constituents	Multiple Units						
Barium (TRC)							
Beryllium (DIS)		<0.0008		<0.0008		<0.0008	
Beryllium (TRC)							
Cadmium (DIS)		<0.00003		<0.00003		<0.00003	
Cadmium (TRC)							
Chromium (DIS)		<0.01		<0.01		<0.01	
Chromium (TRC)							
Cobalt (DIS)		<0.01		<0.01		<0.01	
Cobalt (TRC)							
Copper (DIS)		<0.002		<0.002		<0.002	
Copper (TRC)							
Iron (DIS)		0.03 B		0.03		0.03	
Iron (TRC)							
Lead (DIS)		<0.0003		<0.0003		<0.0003	
Lead (TRC)							
Manganese (DIS)		<0.005		<0.005		0.006	
Manganese (TRC)							
Mercury (DIS)		<0.005		<0.005		<0.005	
Mercury (TRC)							
Molybdenum (DIS)		<0.002		<0.002		<0.002	
Molybdenum (TRC)							
Nickel (DIS)		<0.001		<0.001		<0.001	
Nickel (TRC)							
Selenium (DIS)		0.0003		0.001		0.0083	
Selenium (TRC)							
Silver (DIS)		<0.0002		<0.0002		<0.0002	
Silver (TRC)							
Strontium (DIS)		0.0707		0.0937		0.0904	
Strontium (TRC)							
Thallium (DIS)		<0.0002		<0.0002		0.0035	
Thallium (TRC)							
Uranium (DIS)		0.0005		0.0005		0.0021	
Uranium (TRC)							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	MW-20	MW-2A	MW-2A	MW-2B	MW-2B	MW-3
Water	Sample Date	11/13/2019	11/11/2019	11/12/2019	11/11/2019	11/12/2019	11/11/2019
	Sample Time	9:40:00 AM	12:44:00 PM	9:45:00 AM	12:45:00 PM	10:15:00 AM	12:15:00 PM
	Lab	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs	Hydro
	Lab Number	H19110302-002	z	H19110301-006	z	H19110301-007	z
	Sample Number	BBC-1911-213	BBC-1911-3	BBC-1911-205	BBC-1911-4	BBC-1911-206	BBC-1911-5
	Remarks	DUPLICATE		DUPLICATE			
Metals - Trace Constituents	Multiple Units						
	Zinc (DIS)	<0.002		<0.002		<0.002	
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Analyses Summary Report

Site Name: Black Butte Mine 12/12/2019 10:10:36 AM

Sample Type:	Station (Site)	MW-3	MW-4A	MW-4A	MW-4B	MW-4B	MW-6A
Water	Sample Date	11/12/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019
	Sample Time	11:50:00 AM	11:17:00 AM	3:00:00 PM	11:18:00 AM	3:35:00 PM	10:37:00 AM
	Lab	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs	Hydro
	Lab Number	H19110301-008	z	H19110301-001	z	H19110301-002	z
	Sample Number	BBC-1911-207	BBC-1911-6	BBC-1911-200	BBC-1911-7	BBC-1911-201	BBC-1911-8
	Remarks					DUPLICATE	

Field Parameters	Multiple Units					
Depth To Water	39.16	4.55	4.55	4.03	4.03	8.67
Dissolved Oxygen	0.05		0.17		0.09	
EH	213.3		272.13		230.8	
Field pH	7.07		7.4		7.55	
Field Specific Conductivity	789		543		447	
Flow						
Flow						
Water Temperature	9.4		7.5		6.5	
Physical Parameters	mg/L					
Total Dissolved Solids	532		315		242	
Total Suspended Solids	<10		<10		<10	
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	210		270		220	
Calcium (DIS)	73		87		67	
Chloride	1		9		3	
Fluoride	0.7		0.1		0.1	
Hardness as CaCO3	378		323		259	
Magnesium (DIS)	48		23		22	
Potassium (DIS)	3		2		1	
Sodium (DIS)	16		3		2	
Sulfate	204		14		15	
Nutrients	mg/L					
Nitrate + Nitrite as N	<0.01		0.03		<0.01	
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009		<0.009		<0.009	
Antimony (DIS)	<0.0005		<0.0005		<0.0005	
Antimony (TRC)						
Arsenic (DIS)	0.07		<0.001		<0.001	
Arsenic (TRC)						
Barium (DIS)	0.012		0.2		0.132	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	MW-3	MW-4A	MW-4A	MW-4B	MW-4B	MW-6A
Water	Sample Date	11/12/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019
	Sample Time	11:50:00 AM	11:17:00 AM	3:00:00 PM	11:18:00 AM	3:35:00 PM	10:37:00 AM
	Lab	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs	Hydro
	Lab Number	H19110301-008	z	H19110301-001	z	H19110301-002	z
	Sample Number	BBC-1911-207	BBC-1911-6	BBC-1911-200	BBC-1911-7	BBC-1911-201	BBC-1911-8
	Remarks					DUPLICATE	
Metals - Trace Constituents	Multiple Units						
Barium (TRC)							
Beryllium (DIS)		<0.0008		<0.0008		<0.0008	
Beryllium (TRC)							
Cadmium (DIS)		<0.00003		<0.00003		<0.00003	
Cadmium (TRC)							
Chromium (DIS)		<0.01		<0.01		<0.01	
Chromium (TRC)							
Cobalt (DIS)		<0.01		<0.01		<0.01	
Cobalt (TRC)							
Copper (DIS)		<0.002		<0.002		<0.002	
Copper (TRC)							
Iron (DIS)		1		0.04		<0.02	
Iron (TRC)							
Lead (DIS)		<0.0003		<0.0003		<0.0003	
Lead (TRC)							
Manganese (DIS)		0.023		0.304		<0.005	
Manganese (TRC)							
Mercury (DIS)		<0.005		<0.005		<0.005	
Mercury (TRC)							
Molybdenum (DIS)		<0.002		<0.002		<0.002	
Molybdenum (TRC)							
Nickel (DIS)		<0.001		<0.001		<0.001	
Nickel (TRC)							
Selenium (DIS)		<0.0002		<0.0002		<0.0002	
Selenium (TRC)							
Silver (DIS)		<0.0002		<0.0002		<0.0002	
Silver (TRC)							
Strontium (DIS)		12.8 L		0.184		0.174	
Strontium (TRC)							
Thallium (DIS)		0.0003		<0.0002		<0.0002	
Thallium (TRC)							
Uranium (DIS)		0.0011		0.0004		0.0006	
Uranium (TRC)							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	MW-3	MW-4A	MW-4A	MW-4B	MW-4B	MW-6A
Water	Sample Date	11/12/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019
	Sample Time	11:50:00 AM	11:17:00 AM	3:00:00 PM	11:18:00 AM	3:35:00 PM	10:37:00 AM
	Lab	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs	Hydro
	Lab Number	H19110301-008	z	H19110301-001	z	H19110301-002	z
	Sample Number	BBC-1911-207	BBC-1911-6	BBC-1911-200	BBC-1911-7	BBC-1911-201	BBC-1911-8
	Remarks					DUPLICATE	
	Metals - Trace Constituents	Multiple Units					
	Zinc (DIS)	0.007		<0.002		<0.002	
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Analyses Summary Report

Site Name: Black Butte Mine 12/12/2019 10:10:36 AM

Sample Type:	Station (Site)	MW-6A	MW-6B	MW-6B	MW-7	MW-7	MW-8
Water	Sample Date	11/12/2019	11/11/2019	11/12/2019	11/11/2019	11/12/2019	11/11/2019
	Sample Time	3:40:00 PM	10:39:00 AM	4:15:00 PM	10:42:00 AM	4:40:00 PM	10:55:00 AM
	Lab	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs	Hydro
	Lab Number	H19110301-011	z	H19110301-012	z	H19110301-010	z
	Sample Number	BBC-1911-210	BBC-1911-9	BBC-1911-211	BBC-1911-10	BBC-1911-209	BBC-1911-11
	Remarks						

Field Parameters	Multiple Units					
Depth To Water	8.7	11.83	11.86	32.3	32.27	31.02
Dissolved Oxygen	5.1		3.23		3.28	
EH	273.43		271.14		267.59	
Field pH	7.59		7.65		7.6	
Field Specific Conductivity	451		458		547	
Flow						
Flow						
Water Temperature	7.5		6.8		7.1	
Physical Parameters	mg/L					
Total Dissolved Solids	249		252		323	
Total Suspended Solids	38 J		<10		25 J	
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	230		230		220	
Calcium (DIS)	55		47		55	
Chloride	<1		<1		4	
Fluoride	0.2		0.5		0.3	
Hardness as CaCO3	237		212		284	
Magnesium (DIS)	24		23		36	
Potassium (DIS)	<1		1		1	
Sodium (DIS)	3		15		3	
Sulfate	15		22		66	
Nutrients	mg/L					
Nitrate + Nitrite as N	0.1		0.08		<0.01	
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009		<0.009		0.015	
Antimony (DIS)	<0.0005		<0.0005		<0.0005	
Antimony (TRC)						
Arsenic (DIS)	<0.001		<0.001		0.002	
Arsenic (TRC)						
Barium (DIS)	0.186		0.116		0.04	

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Sample Type:	Station (Site)	MW-6A	MW-6B	MW-6B	MW-7	MW-7	MW-8
Water	Sample Date	11/12/2019	11/11/2019	11/12/2019	11/11/2019	11/12/2019	11/11/2019
	Sample Time	3:40:00 PM	10:39:00 AM	4:15:00 PM	10:42:00 AM	4:40:00 PM	10:55:00 AM
	Lab	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs	Hydro
	Lab Number	H19110301-011	z	H19110301-012	z	H19110301-010	z
	Sample Number	BBC-1911-210	BBC-1911-9	BBC-1911-211	BBC-1911-10	BBC-1911-209	BBC-1911-11
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Barium (TRC)						
	Beryllium (DIS)	<0.0008		<0.0008		<0.0008	
	Beryllium (TRC)						
	Cadmium (DIS)	<0.00003		<0.00003		<0.00003	
	Cadmium (TRC)						
	Chromium (DIS)	<0.01		<0.01		<0.01	
	Chromium (TRC)						
	Cobalt (DIS)	<0.01		<0.01		<0.01	
	Cobalt (TRC)						
	Copper (DIS)	<0.002		<0.002		<0.002	
	Copper (TRC)						
	Iron (DIS)	0.03		<0.02		0.04	
	Iron (TRC)						
	Lead (DIS)	<0.0003		<0.0003		0.0007	
	Lead (TRC)						
	Manganese (DIS)	<0.005		<0.005		0.007	
	Manganese (TRC)						
	Mercury (DIS)	<0.005		<0.005		<0.005	
	Mercury (TRC)						
	Molybdenum (DIS)	<0.002		<0.002		0.004	
	Molybdenum (TRC)						
	Nickel (DIS)	<0.001		<0.001		<0.001	
	Nickel (TRC)						
	Selenium (DIS)	<0.0002		<0.0002		<0.0002	
	Selenium (TRC)						
	Silver (DIS)	<0.0002		<0.0002		<0.0002	
	Silver (TRC)						
	Strontium (DIS)	0.167		0.232		0.161	
	Strontium (TRC)						
	Thallium (DIS)	<0.0002		<0.0002		<0.0002	
	Thallium (TRC)						
	Uranium (DIS)	0.0007		0.0007		0.0021	
	Uranium (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	MW-6A	MW-6B	MW-6B	MW-7	MW-7	MW-8
Water	Sample Date	11/12/2019	11/11/2019	11/12/2019	11/11/2019	11/12/2019	11/11/2019
	Sample Time	3:40:00 PM	10:39:00 AM	4:15:00 PM	10:42:00 AM	4:40:00 PM	10:55:00 AM
	Lab	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs	Hydro
	Lab Number	H19110301-011	z	H19110301-012	z	H19110301-010	z
	Sample Number	BBC-1911-210	BBC-1911-9	BBC-1911-211	BBC-1911-10	BBC-1911-209	BBC-1911-11
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Zinc (DIS)	<0.002		<0.002		<0.002	
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 12/12/2019 10:10:36 AM

Sample Type:	Station (Site)	MW-8	MW-9	MW-9	PW-1	PW-10	PW-2
Water	Sample Date	11/13/2019	11/11/2019	11/12/2019	11/11/2019	11/11/2019	11/11/2019
	Sample Time	10:05:00 AM	12:19:00 PM	1:45:00 PM	12:37:00 PM	12:18:00 PM	12:10:00 PM
	Lab	Energy Labs	Hydro	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	H19110302-003	z	H19110301-009	z	z	z
	Sample Number	BBC-1911-214	BBC-1911-12	BBC-1911-208	BBC-1911-29	BBC-1911-38	BBC-1911-30
	Remarks						

Field Parameters	Multiple Units					
Depth To Water	31.06	52.01	51.98	100.95	45.04	51.71
Dissolved Oxygen	0.12		0.07			
EH	170.18		222.25			
Field pH	8.01		6.98			
Field Specific Conductivity	307		796			
Flow						
Flow						
Water Temperature	7.2		9.1			
Physical Parameters	mg/L					
Total Dissolved Solids	159		527			
Total Suspended Solids	<10		<10			
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	150		240			
Calcium (DIS)	25		84			
Chloride	<1		1			
Fluoride	0.2		0.5			
Hardness as CaCO3	159		413			
Magnesium (DIS)	23		49			
Potassium (DIS)	<1		4			
Sodium (DIS)	3		6			
Sulfate	15		186			
Nutrients	mg/L					
Nitrate + Nitrite as N	<0.01		<0.01			
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009		<0.009			
Antimony (DIS)	<0.0005		<0.0005			
Antimony (TRC)						
Arsenic (DIS)	0.002		0.015			
Arsenic (TRC)						
Barium (DIS)	0.079		0.014			

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	MW-8	MW-9	MW-9	PW-1	PW-10	PW-2
Water	Sample Date	11/13/2019	11/11/2019	11/12/2019	11/11/2019	11/11/2019	11/11/2019
	Sample Time	10:05:00 AM	12:19:00 PM	1:45:00 PM	12:37:00 PM	12:18:00 PM	12:10:00 PM
	Lab	Energy Labs	Hydro	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	H19110302-003	z	H19110301-009	z	z	z
	Sample Number	BBC-1911-214	BBC-1911-12	BBC-1911-208	BBC-1911-29	BBC-1911-38	BBC-1911-30
	Remarks						

Metals - Trace Constituents	Multiple Units					
Barium (TRC)						
Beryllium (DIS)	<0.0008	<0.0008				
Beryllium (TRC)						
Cadmium (DIS)	<0.00003	<0.00003				
Cadmium (TRC)						
Chromium (DIS)	<0.01	<0.01				
Chromium (TRC)						
Cobalt (DIS)	<0.01	<0.01				
Cobalt (TRC)						
Copper (DIS)	<0.002	<0.002				
Copper (TRC)						
Iron (DIS)	0.09 B	0.83				
Iron (TRC)						
Lead (DIS)	<0.0003	0.0021				
Lead (TRC)						
Manganese (DIS)	0.01	0.09				
Manganese (TRC)						
Mercury (DIS)	<0.005	<0.005				
Mercury (TRC)						
Molybdenum (DIS)	<0.002	<0.002				
Molybdenum (TRC)						
Nickel (DIS)	<0.001	<0.001				
Nickel (TRC)						
Selenium (DIS)	<0.0002	<0.0002				
Selenium (TRC)						
Silver (DIS)	<0.0002	<0.0002				
Silver (TRC)						
Strontium (DIS)	0.0838	1.39 L				
Strontium (TRC)						
Thallium (DIS)	<0.0002	0.0036				
Thallium (TRC)						
Uranium (DIS)	0.0007	0.001				
Uranium (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	MW-8	MW-9	MW-9	PW-1	PW-10	PW-2
Water	Sample Date	11/13/2019	11/11/2019	11/12/2019	11/11/2019	11/11/2019	11/11/2019
	Sample Time	10:05:00 AM	12:19:00 PM	1:45:00 PM	12:37:00 PM	12:18:00 PM	12:10:00 PM
	Lab	Energy Labs	Hydro	Energy Labs	Hydro	Hydro	Hydro
	Lab Number	H19110302-003	z	H19110301-009	z	z	z
	Sample Number	BBC-1911-214	BBC-1911-12	BBC-1911-208	BBC-1911-29	BBC-1911-38	BBC-1911-30
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Zinc (DIS)	<0.002		<0.002			
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	PW-3	PW-4	PW-5	PW-6N	PW-7	PW-8
Water	Sample Date	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019
	Sample Time	11:34:00 AM	1:00:00 PM	12:05:00 PM	11:55:00 AM	11:20:00 AM	12:58:00 PM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1911-31	BBC-1911-32	BBC-1911-33	BBC-1911-34	BBC-1911-35	BBC-1911-36
	Remarks						
Field Parameters	Multiple Units						
	Depth To Water	11.44	53.05	311.94	306.63	Artesian	44.57
	Dissolved Oxygen						
	EH						
	Field pH						
	Field Specific Conductivity						
	Flow						
	Flow						
	Water Temperature						
Physical Parameters	mg/L						
	Total Dissolved Solids						
	Total Suspended Solids						
Major Constituents - Commons Ions	mg/L						
	Alkalinity as CaCO3						
	Calcium (DIS)						
	Chloride						
	Fluoride						
	Hardness as CaCO3						
	Magnesium (DIS)						
	Potassium (DIS)						
	Sodium (DIS)						
	Sulfate						
Nutrients	mg/L						
	Nitrate + Nitrite as N						
	Phosphorus (TOT)						
	Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units						
	Aluminum (DIS)						
	Antimony (DIS)						
	Antimony (TRC)						
	Arsenic (DIS)						
	Arsenic (TRC)						
	Barium (DIS)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	PW-3	PW-4	PW-5	PW-6N	PW-7	PW-8
Water	Sample Date	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019
	Sample Time	11:34:00 AM	1:00:00 PM	12:05:00 PM	11:55:00 AM	11:20:00 AM	12:58:00 PM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1911-31	BBC-1911-32	BBC-1911-33	BBC-1911-34	BBC-1911-35	BBC-1911-36
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Barium (TRC)						
	Beryllium (DIS)						
	Beryllium (TRC)						
	Cadmium (DIS)						
	Cadmium (TRC)						
	Chromium (DIS)						
	Chromium (TRC)						
	Cobalt (DIS)						
	Cobalt (TRC)						
	Copper (DIS)						
	Copper (TRC)						
	Iron (DIS)						
	Iron (TRC)						
	Lead (DIS)						
	Lead (TRC)						
	Manganese (DIS)						
	Manganese (TRC)						
	Mercury (DIS)						
	Mercury (TRC)						
	Molybdenum (DIS)						
	Molybdenum (TRC)						
	Nickel (DIS)						
	Nickel (TRC)						
	Selenium (DIS)						
	Selenium (TRC)						
	Silver (DIS)						
	Silver (TRC)						
	Strontium (DIS)						
	Strontium (TRC)						
	Thallium (DIS)						
	Thallium (TRC)						
	Uranium (DIS)						
	Uranium (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	PW-3	PW-4	PW-5	PW-6N	PW-7	PW-8
Water	Sample Date	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019
	Sample Time	11:34:00 AM	1:00:00 PM	12:05:00 PM	11:55:00 AM	11:20:00 AM	12:58:00 PM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1911-31	BBC-1911-32	BBC-1911-33	BBC-1911-34	BBC-1911-35	BBC-1911-36
	Remarks						
	Metals - Trace Constituents Multiple Units						
	Zinc (DIS)						
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	PW-9	PZ-01	PZ-02	PZ-03	PZ-04	PZ-05
Water	Sample Date	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019
	Sample Time	12:20:00 PM	10:52:00 AM	10:57:00 AM	11:13:00 AM	11:22:00 AM	11:27:00 AM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1911-37	BBC-1911-39	BBC-1911-40	BBC-1911-41	BBC-1911-42	BBC-1911-43
	Remarks						
Field Parameters	Multiple Units						
Depth To Water		47.95	2.94	3.01	4.77	NM-ICED	3.17
Dissolved Oxygen							
EH							
Field pH							
Field Specific Conductivity							
Flow							
Flow							
Water Temperature							
Physical Parameters	mg/L						
Total Dissolved Solids							
Total Suspended Solids							
Major Constituents - Commons Ions	mg/L						
Alkalinity as CaCO3							
Calcium (DIS)							
Chloride							
Fluoride							
Hardness as CaCO3							
Magnesium (DIS)							
Potassium (DIS)							
Sodium (DIS)							
Sulfate							
Nutrients	mg/L						
Nitrate + Nitrite as N							
Phosphorus (TOT)							
Total Nitrogen as N (Persulfate)							
Metals - Trace Constituents	Multiple Units						
Aluminum (DIS)							
Antimony (DIS)							
Antimony (TRC)							
Arsenic (DIS)							
Arsenic (TRC)							
Barium (DIS)							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	PW-9	PZ-01	PZ-02	PZ-03	PZ-04	PZ-05
Water	Sample Date	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019
	Sample Time	12:20:00 PM	10:52:00 AM	10:57:00 AM	11:13:00 AM	11:22:00 AM	11:27:00 AM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1911-37	BBC-1911-39	BBC-1911-40	BBC-1911-41	BBC-1911-42	BBC-1911-43
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Barium (TRC)						
	Beryllium (DIS)						
	Beryllium (TRC)						
	Cadmium (DIS)						
	Cadmium (TRC)						
	Chromium (DIS)						
	Chromium (TRC)						
	Cobalt (DIS)						
	Cobalt (TRC)						
	Copper (DIS)						
	Copper (TRC)						
	Iron (DIS)						
	Iron (TRC)						
	Lead (DIS)						
	Lead (TRC)						
	Manganese (DIS)						
	Manganese (TRC)						
	Mercury (DIS)						
	Mercury (TRC)						
	Molybdenum (DIS)						
	Molybdenum (TRC)						
	Nickel (DIS)						
	Nickel (TRC)						
	Selenium (DIS)						
	Selenium (TRC)						
	Silver (DIS)						
	Silver (TRC)						
	Strontium (DIS)						
	Strontium (TRC)						
	Thallium (DIS)						
	Thallium (TRC)						
	Uranium (DIS)						
	Uranium (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	PW-9	PZ-01	PZ-02	PZ-03	PZ-04	PZ-05
Water	Sample Date	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019
	Sample Time	12:20:00 PM	10:52:00 AM	10:57:00 AM	11:13:00 AM	11:22:00 AM	11:27:00 AM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1911-37	BBC-1911-39	BBC-1911-40	BBC-1911-41	BBC-1911-42	BBC-1911-43
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Zinc (DIS)						
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	PZ-07A	PZ-07B	PZ-08	PZ-09	PZ-10	PZ-14
Water	Sample Date	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019
	Sample Time	11:23:00 AM	11:22:00 AM	11:35:00 AM	10:42:00 AM	12:28:00 PM	11:00:00 AM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1911-44	BBC-1911-45	BBC-1911-46	BBC-1911-47	BBC-1911-48	BBC-1911-52
	Remarks						
Field Parameters	Multiple Units						
	Depth To Water	2.17	3.45	4.16	5.53	8.99	6.02
	Dissolved Oxygen						
	EH						
	Field pH						
	Field Specific Conductivity						
	Flow						
	Flow						
	Water Temperature						
Physical Parameters	mg/L						
	Total Dissolved Solids						
	Total Suspended Solids						
Major Constituents - Commons Ions	mg/L						
	Alkalinity as CaCO3						
	Calcium (DIS)						
	Chloride						
	Fluoride						
	Hardness as CaCO3						
	Magnesium (DIS)						
	Potassium (DIS)						
	Sodium (DIS)						
	Sulfate						
Nutrients	mg/L						
	Nitrate + Nitrite as N						
	Phosphorus (TOT)						
	Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units						
	Aluminum (DIS)						
	Antimony (DIS)						
	Antimony (TRC)						
	Arsenic (DIS)						
	Arsenic (TRC)						
	Barium (DIS)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	PZ-07A	PZ-07B	PZ-08	PZ-09	PZ-10	PZ-14
Water	Sample Date	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019
	Sample Time	11:23:00 AM	11:22:00 AM	11:35:00 AM	10:42:00 AM	12:28:00 PM	11:00:00 AM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1911-44	BBC-1911-45	BBC-1911-46	BBC-1911-47	BBC-1911-48	BBC-1911-52
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Barium (TRC)						
	Beryllium (DIS)						
	Beryllium (TRC)						
	Cadmium (DIS)						
	Cadmium (TRC)						
	Chromium (DIS)						
	Chromium (TRC)						
	Cobalt (DIS)						
	Cobalt (TRC)						
	Copper (DIS)						
	Copper (TRC)						
	Iron (DIS)						
	Iron (TRC)						
	Lead (DIS)						
	Lead (TRC)						
	Manganese (DIS)						
	Manganese (TRC)						
	Mercury (DIS)						
	Mercury (TRC)						
	Molybdenum (DIS)						
	Molybdenum (TRC)						
	Nickel (DIS)						
	Nickel (TRC)						
	Selenium (DIS)						
	Selenium (TRC)						
	Silver (DIS)						
	Silver (TRC)						
	Strontium (DIS)						
	Strontium (TRC)						
	Thallium (DIS)						
	Thallium (TRC)						
	Uranium (DIS)						
	Uranium (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	PZ-07A	PZ-07B	PZ-08	PZ-09	PZ-10	PZ-14
Water	Sample Date	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019
	Sample Time	11:23:00 AM	11:22:00 AM	11:35:00 AM	10:42:00 AM	12:28:00 PM	11:00:00 AM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1911-44	BBC-1911-45	BBC-1911-46	BBC-1911-47	BBC-1911-48	BBC-1911-52
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Zinc (DIS)						
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 12/12/2019 10:10:36 AM

Sample Type:	Station (Site)	PZ-15R	INSATE BLANK	SC12-116	SC15-184	SC15-184	SC15-185
Water	Sample Date	11/11/2019	11/13/2019	11/11/2019	11/11/2019	11/13/2019	11/11/2019
	Sample Time	11:15:00 AM	4:00:00 PM	11:27:00 AM	9:58:00 AM	12:30:00 PM	10:17:00 AM
	Lab	Hydro	Energy Labs	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	H19110301-013	z	z	z	z
	Sample Number	BBC-1911-53	BBC-1911-227	BBC-1911-24	BBC-1911-25	BBC-1911-218	BBC-1911-26
	Remarks						

Field Parameters	Multiple Units					
Depth To Water	4.77		95.85	Artesian	Frozen	31.04
Dissolved Oxygen						
EH						
Field pH						
Field Specific Conductivity						
Flow						
Flow						
Water Temperature						
Physical Parameters	mg/L					
Total Dissolved Solids		<10				
Total Suspended Solids		<10				
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3		<4				
Calcium (DIS)		<1				
Chloride		<1				
Fluoride		<0.1				
Hardness as CaCO3		<1				
Magnesium (DIS)		<1				
Potassium (DIS)		<1				
Sodium (DIS)		<1				
Sulfate		<1				
Nutrients	mg/L					
Nitrate + Nitrite as N		<0.01				
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)		<0.009				
Antimony (DIS)		<0.0005				
Antimony (TRC)						
Arsenic (DIS)		<0.001				
Arsenic (TRC)						
Barium (DIS)		<0.003				

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	PZ-15R	INSATE BLANK	SC12-116	SC15-184	SC15-184	SC15-185
Water	Sample Date	11/11/2019	11/13/2019	11/11/2019	11/11/2019	11/13/2019	11/11/2019
	Sample Time	11:15:00 AM	4:00:00 PM	11:27:00 AM	9:58:00 AM	12:30:00 PM	10:17:00 AM
	Lab	Hydro	Energy Labs	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	H19110301-013	z	z	z	z
	Sample Number	BBC-1911-53	BBC-1911-227	BBC-1911-24	BBC-1911-25	BBC-1911-218	BBC-1911-26
	Remarks						

Metals - Trace Constituents Multiple Units	
Barium (TRC)	
Beryllium (DIS)	<0.0008
Beryllium (TRC)	
Cadmium (DIS)	<0.00003
Cadmium (TRC)	
Chromium (DIS)	<0.01
Chromium (TRC)	
Cobalt (DIS)	<0.01
Cobalt (TRC)	
Copper (DIS)	<0.002
Copper (TRC)	
Iron (DIS)	<0.02
Iron (TRC)	
Lead (DIS)	<0.0003
Lead (TRC)	
Manganese (DIS)	<0.005
Manganese (TRC)	
Mercury (DIS)	<0.005
Mercury (TRC)	
Molybdenum (DIS)	<0.002
Molybdenum (TRC)	
Nickel (DIS)	<0.001
Nickel (TRC)	
Selenium (DIS)	<0.0002
Selenium (TRC)	
Silver (DIS)	<0.0002
Silver (TRC)	
Strontium (DIS)	<0.0002
Strontium (TRC)	
Thallium (DIS)	<0.0002
Thallium (TRC)	
Uranium (DIS)	<0.0002
Uranium (TRC)	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	PZ-15R	INSATE BLANK	SC12-116	SC15-184	SC15-184	SC15-185
Water	Sample Date	11/11/2019	11/13/2019	11/11/2019	11/11/2019	11/13/2019	11/11/2019
	Sample Time	11:15:00 AM	4:00:00 PM	11:27:00 AM	9:58:00 AM	12:30:00 PM	10:17:00 AM
	Lab	Hydro	Energy Labs	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	H19110301-013	z	z	z	z
	Sample Number	BBC-1911-53	BBC-1911-227	BBC-1911-24	BBC-1911-25	BBC-1911-218	BBC-1911-26
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Zinc (DIS)		<0.002				
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 12/12/2019 10:10:36 AM

Sample Type:	Station (Site)	SC15-185	SC15-194	SC15-194	SC15-198	SC15-198	SP-10
Water	Sample Date	11/13/2019	11/11/2019	11/13/2019	11/11/2019	11/13/2019	11/12/2019
	Sample Time	12:40:00 PM	11:16:00 AM	2:20:00 PM	10:59:00 AM	1:15:00 PM	2:25:00 PM
	Lab	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs	Energy Labs
	Lab Number	H19110302-008	z	H19110302-012	z	H19110302-011	H19110279-002
	Sample Number	BBC-1911-220	BBC-1911-27	BBC-1911-224	BBC-1911-28	BBC-1911-223	BBC-1911-125
	Remarks						

Field Parameters	Multiple Units					
Depth To Water	31.02	19.96	19.98	42.3	42.34	
Dissolved Oxygen	2.52		1.26		1.34	
EH	343.93		197.23		379.4	
Field pH	7.82		7.77		7.68	
Field Specific Conductivity	394		384		423	
Flow						
Flow						<0.06
Water Temperature	5.7		6.3		5.9	
Physical Parameters	mg/L					
Total Dissolved Solids	213		214		229	239
Total Suspended Solids	15 J		<10		20 J	58 J
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	210		180		210	220
Calcium (DIS)	44		40		46	57
Chloride	<1		<1		2	<1
Fluoride	0.1		0.3		0.1	0.1
Hardness as CaCO3	196		194		216	228
Magnesium (DIS)	21		23		24	21
Potassium (DIS)	2		<1		<1	1
Sodium (DIS)	4		2		3	2
Sulfate	12		32		6	16
Nutrients	mg/L					
Nitrate + Nitrite as N	0.25		<0.01		0.62	0.21
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	0.016		<0.009		0.075	<0.009
Antimony (DIS)	<0.0005		<0.0005		<0.0005	<0.0005
Antimony (TRC)						
Arsenic (DIS)	<0.001		0.001		<0.001	<0.001
Arsenic (TRC)						
Barium (DIS)	0.065		0.034		0.373	0.051

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	SC15-185	SC15-194	SC15-194	SC15-198	SC15-198	SP-10
Water	Sample Date	11/13/2019	11/11/2019	11/13/2019	11/11/2019	11/13/2019	11/12/2019
	Sample Time	12:40:00 PM	11:16:00 AM	2:20:00 PM	10:59:00 AM	1:15:00 PM	2:25:00 PM
	Lab	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs	Energy Labs
	Lab Number	H19110302-008	z	H19110302-012	z	H19110302-011	H19110279-002
	Sample Number	BBC-1911-220	BBC-1911-27	BBC-1911-224	BBC-1911-28	BBC-1911-223	BBC-1911-125
	Remarks						
Metals - Trace Constituents	Multiple Units						
Barium (TRC)							
Beryllium (DIS)		<0.0008	<0.0008	<0.0008	<0.0008		
Beryllium (TRC)							
Cadmium (DIS)		<0.00003	<0.00003	<0.00003	<0.00003		
Cadmium (TRC)							
Chromium (DIS)		<0.01	<0.01	<0.01	<0.01		
Chromium (TRC)							
Cobalt (DIS)		<0.01	<0.01	<0.01	<0.01		
Cobalt (TRC)							
Copper (DIS)		<0.002	<0.002	<0.002	<0.002		
Copper (TRC)							
Iron (DIS)		0.03 B	0.05 B	0.03 B	<0.02		
Iron (TRC)							
Lead (DIS)		<0.0003	<0.0003	<0.0003	<0.0003		
Lead (TRC)							
Manganese (DIS)		<0.005	<0.005	<0.005	0.02		
Manganese (TRC)							
Mercury (DIS)		<0.005	<0.005	<0.005	<0.005		
Mercury (TRC)							
Molybdenum (DIS)		0.004	<0.002	<0.002	<0.002		
Molybdenum (TRC)							
Nickel (DIS)		<0.001	<0.001	<0.001	<0.001		
Nickel (TRC)							
Selenium (DIS)		<0.0002	<0.0002	0.0002	0.0003		
Selenium (TRC)							
Silver (DIS)		<0.0002	<0.0002	<0.0002	<0.0002		
Silver (TRC)							
Strontium (DIS)		0.237	0.0703	0.0951	0.114		
Strontium (TRC)							
Thallium (DIS)		<0.0002	<0.0002	<0.0002	<0.0002		
Thallium (TRC)							
Uranium (DIS)		0.0031	0.0008	0.0006	0.0008		
Uranium (TRC)							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	SC15-185	SC15-194	SC15-194	SC15-198	SC15-198	SP-10
Water	Sample Date	11/13/2019	11/11/2019	11/13/2019	11/11/2019	11/13/2019	11/12/2019
	Sample Time	12:40:00 PM	11:16:00 AM	2:20:00 PM	10:59:00 AM	1:15:00 PM	2:25:00 PM
	Lab	Energy Labs	Hydro	Energy Labs	Hydro	Energy Labs	Energy Labs
	Lab Number	H19110302-008	z	H19110302-012	z	H19110302-011	H19110279-002
	Sample Number	BBC-1911-220	BBC-1911-27	BBC-1911-224	BBC-1911-28	BBC-1911-223	BBC-1911-125
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Zinc (DIS)	0.002		<0.002		<0.002	<0.002
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 12/12/2019 10:10:36 AM

Sample Type:	Station (Site)	SP-11	SP-12	SP-3	SP-4	SP-5	SP-6
Water	Sample Date	11/13/2019	11/13/2019	11/12/2019	11/13/2019	11/12/2019	11/12/2019
	Sample Time	11:15:00 AM	10:50:00 AM	3:30:00 PM	9:45:00 AM	10:25:00 AM	4:00:00 PM
	Lab	Hydro	Energy Labs	Energy Labs	Energy Labs	Hydro	Energy Labs
	Lab Number	z	H19110279-008	H19110279-003	H19110279-006	z	H19110279-004
	Sample Number	BBC-1911-133	BBC-1911-132	BBC-1911-126	BBC-1911-130	BBC-1911-119	BBC-1911-129
	Remarks						

Field Parameters	Multiple Units					
Depth To Water						
Dissolved Oxygen		0.55	14.2	12.09		5.51
EH						
Field pH		7.36	7.78	7.61		7.7
Field Specific Conductivity		454	183	425		287
Flow						
Flow	NM	NM	<0.009	8.08	NF-ICED	0.94
Water Temperature		6.7	1.4	6.5		6.5
Physical Parameters	mg/L					
Total Dissolved Solids		257	136	248		175
Total Suspended Solids		65 J	<10	<10		<10
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3		210	95	200		140
Calcium (DIS)		57	28	53		40
Chloride		10	<1	<1		1
Fluoride		0.2	0.1	0.2		0.2
Hardness as CaCO3		243	96	247		165
Magnesium (DIS)		25	6	28		15
Potassium (DIS)		1	1	2		<1
Sodium (DIS)		2	3	2		2
Sulfate		22	6	33		11
Nutrients	mg/L					
Nitrate + Nitrite as N		0.22	0.3	0.28		0.41
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)		<0.009	0.178	<0.009		0.042
Antimony (DIS)		<0.0005	<0.0005	<0.0005		<0.0005
Antimony (TRC)						
Arsenic (DIS)		<0.001	0.001	<0.001		<0.001
Arsenic (TRC)						
Barium (DIS)		0.184	0.29	0.11		0.203

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	SP-11	SP-12	SP-3	SP-4	SP-5	SP-6
Water	Sample Date	11/13/2019	11/13/2019	11/12/2019	11/13/2019	11/12/2019	11/12/2019
	Sample Time	11:15:00 AM	10:50:00 AM	3:30:00 PM	9:45:00 AM	10:25:00 AM	4:00:00 PM
	Lab	Hydro	Energy Labs	Energy Labs	Energy Labs	Hydro	Energy Labs
	Lab Number	z	H19110279-008	H19110279-003	H19110279-006	z	H19110279-004
	Sample Number	BBC-1911-133	BBC-1911-132	BBC-1911-126	BBC-1911-130	BBC-1911-119	BBC-1911-129
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Barium (TRC)						
	Beryllium (DIS)	<0.0008	<0.0008	<0.0008			<0.0008
	Beryllium (TRC)						
	Cadmium (DIS)	<0.00003	<0.00003	<0.00003			<0.00003
	Cadmium (TRC)						
	Chromium (DIS)	<0.01	<0.01	<0.01			<0.01
	Chromium (TRC)						
	Cobalt (DIS)	<0.01	<0.01	<0.01			<0.01
	Cobalt (TRC)						
	Copper (DIS)	<0.002	<0.002	<0.002			<0.002
	Copper (TRC)						
	Iron (DIS)	0.03 B	0.09	0.06 B			0.03
	Iron (TRC)						
	Lead (DIS)	<0.0003	<0.0003	<0.0003			<0.0003
	Lead (TRC)						
	Manganese (DIS)	<0.005	<0.005	<0.005			<0.005
	Manganese (TRC)						
	Mercury (DIS)	<0.005	<0.005	<0.005			<0.005
	Mercury (TRC)						
	Molybdenum (DIS)	<0.002	<0.002	<0.002			<0.002
	Molybdenum (TRC)						
	Nickel (DIS)	<0.001	<0.001	<0.001			<0.001
	Nickel (TRC)						
	Selenium (DIS)	<0.0002	<0.0002	0.0004			<0.0002
	Selenium (TRC)						
	Silver (DIS)	<0.0002	<0.0002	<0.0002			<0.0002
	Silver (TRC)						
	Strontium (DIS)	0.113	0.0809	0.0718			0.078
	Strontium (TRC)						
	Thallium (DIS)	<0.0002	<0.0002	0.0003			0.0006
	Thallium (TRC)						
	Uranium (DIS)	0.0007	0.0002	0.0005			0.0004
	Uranium (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-11	SP-12	SP-3	SP-4	SP-5	SP-6
Water	Sample Date	11/13/2019	11/13/2019	11/12/2019	11/13/2019	11/12/2019	11/12/2019
	Sample Time	11:15:00 AM	10:50:00 AM	3:30:00 PM	9:45:00 AM	10:25:00 AM	4:00:00 PM
	Lab	Hydro	Energy Labs	Energy Labs	Energy Labs	Hydro	Energy Labs
	Lab Number	z	H19110279-008	H19110279-003	H19110279-006	z	H19110279-004
	Sample Number	BBC-1911-133	BBC-1911-132	BBC-1911-126	BBC-1911-130	BBC-1911-119	BBC-1911-129
	Remarks						
	Metals - Trace Constituents Multiple Units						
	Zinc (DIS)		<0.002	<0.002	0.004		<0.002
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 12/12/2019 10:10:37 AM

Sample Type:	Station (Site)	SP-6	SP-6	SP-7	SW-1	SW-10	SW-11
Water	Sample Date	11/12/2019	11/12/2019	11/13/2019	11/11/2019	11/11/2019	11/11/2019
	Sample Time	4:10:00 PM	4:10:00 PM	10:30:00 AM	1:15:00 PM	8:55:00 AM	2:55:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Energy Labs
	Lab Number	H19110279-005	H19110279-005	H19110279-007	H19110278-001	z	H19110278-005
	Sample Number	BBC-1911-135	BBC-1911-135	BBC-1911-131	BBC-1911-100	BBC-1911-114	BBC-1911-106
	Remarks		DUPLICATE				

Field Parameters	Multiple Units					
Depth To Water						
Dissolved Oxygen			3.97	14.82	11.89	12.19
EH						
Field pH			7.01	8.11	8.08	8.27
Field Specific Conductivity			334	341	443	458
Flow				NM-ICED	NF-ICED	NM-ICED
Flow			19.75			
Water Temperature			7	0.01	0.01	0.04
Physical Parameters	mg/L					
Total Dissolved Solids	176		195	193 D		262 D
Total Suspended Solids	<10		<10	<4		<4
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3		140	170	180		230
Calcium (DIS)	41		43	49		58
Chloride	1		2	2		1
Fluoride	0.2		0.3	<0.1		0.2
Hardness as CaCO3	165		167	183		261
Magnesium (DIS)	15		15	15		28
Potassium (DIS)	<1		3	1		1
Sodium (DIS)	2		5	2		3
Sulfate	11		11	7		27
Nutrients	mg/L					
Nitrate + Nitrite as N	0.41		0.33	0.05		0.12
Phosphorus (TOT)				0.007		0.01
Total Nitrogen as N (Persulfate)				0.11		0.21
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	0.044		<0.009	<0.009		<0.009
Antimony (DIS)	<0.0005		<0.0005			
Antimony (TRC)				<0.0005		<0.0005
Arsenic (DIS)	<0.001		0.004			
Arsenic (TRC)				<0.001		<0.001
Barium (DIS)	0.199		0.111			

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	SP-6	SP-6	SP-7	SW-1	SW-10	SW-11
Water	Sample Date	11/12/2019	11/12/2019	11/13/2019	11/11/2019	11/11/2019	11/11/2019
	Sample Time	4:10:00 PM	4:10:00 PM	10:30:00 AM	1:15:00 PM	8:55:00 AM	2:55:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Energy Labs
	Lab Number	H19110279-005	H19110279-005	H19110279-007	H19110278-001	z	H19110278-005
	Sample Number	BBC-1911-135	BBC-1911-135	BBC-1911-131	BBC-1911-100	BBC-1911-114	BBC-1911-106
	Remarks		DUPLICATE				
Metals - Trace Constituents	Multiple Units						
Barium (TRC)					0.108		0.109
Beryllium (DIS)		<0.0008		<0.0008			
Beryllium (TRC)					<0.0008		<0.0008
Cadmium (DIS)		<0.00003		<0.00003			
Cadmium (TRC)					<0.00003		<0.00003
Chromium (DIS)		<0.01		<0.01			
Chromium (TRC)					<0.01		<0.01
Cobalt (DIS)		<0.01		<0.01			
Cobalt (TRC)					<0.01		<0.01
Copper (DIS)		<0.002		<0.002			
Copper (TRC)					<0.002		<0.002
Iron (DIS)		0.05		<0.02			
Iron (TRC)					0.19		0.09
Lead (DIS)		<0.0003		<0.0003			
Lead (TRC)					<0.0003		<0.0003
Manganese (DIS)		<0.005		<0.005			
Manganese (TRC)					0.019		<0.005
Mercury (DIS)		<0.005		<0.005			
Mercury (TRC)					<0.005		<0.005
Molybdenum (DIS)		<0.002		<0.002			
Molybdenum (TRC)					<0.002		<0.002
Nickel (DIS)		<0.001		<0.001			
Nickel (TRC)					<0.001		<0.001
Selenium (DIS)		<0.0002		0.0003			
Selenium (TRC)					<0.0002		<0.0002
Silver (DIS)		<0.0002		<0.0002			
Silver (TRC)					<0.0002		<0.0002
Strontium (DIS)		0.0775		0.168			
Strontium (TRC)					0.13		0.186
Thallium (DIS)		0.0005		0.001			
Thallium (TRC)					<0.0002		<0.0002
Uranium (DIS)		0.0004		0.0009			
Uranium (TRC)					0.0004		0.0011

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- J: The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-6	SP-6	SP-7	SW-1	SW-10	SW-11
Water	Sample Date	11/12/2019	11/12/2019	11/13/2019	11/11/2019	11/11/2019	11/11/2019
	Sample Time	4:10:00 PM	4:10:00 PM	10:30:00 AM	1:15:00 PM	8:55:00 AM	2:55:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro	Energy Labs
	Lab Number	H19110279-005	H19110279-005	H19110279-007	H19110278-001	z	H19110278-005
	Sample Number	BBC-1911-135	BBC-1911-135	BBC-1911-131	BBC-1911-100	BBC-1911-114	BBC-1911-106
	Remarks		DUPLICATE				
Metals - Trace Constituents	Multiple Units						
	Zinc (DIS)	0.002		<0.002			
	Zinc (TRC)				0.002		0.004

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-14	SW-17	SW-17	SW-18	SW-19	SW-2
Water	Sample Date	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019
	Sample Time	2:10:00 PM	3:50:00 PM	4:00:00 PM	2:25:00 PM	8:35:00 AM	1:35:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro	Energy Labs
	Lab Number	H19110278-004	H19110278-007	H19110278-008	z	z	H19110278-002
	Sample Number	BBC-1911-103	BBC-1911-109	BBC-1911-110	BBC-1911-105	BBC-1911-113	BBC-1911-101
	Remarks						

Field Parameters	Multiple Units					
Depth To Water						
Dissolved Oxygen	11.53	9.26			9.11	14.3
EH						
Field pH	8.1	7.54			8.16	7.96
Field Specific Conductivity	414	463			412	300
Flow	0.58	NM-ICED		NF-DRY	NF-ICED	NM-ICED
Flow						
Water Temperature	3.9	0.04			0.49	0
Physical Parameters	mg/L					
Total Dissolved Solids	240 D	267 D	267 D			169 D
Total Suspended Solids	10 J	<4	<4			<4
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	220	210	210			160
Calcium (DIS)	57	56	55			44
Chloride	2	7	7			1
Fluoride	0.2	0.2	0.2			<0.1
Hardness as CaCO3	245	251	249			161
Magnesium (DIS)	25	27	27			13
Potassium (DIS)	1	1	1			1
Sodium (DIS)	2	3	3			2
Sulfate	11	31	31			6
Nutrients	mg/L					
Nitrate + Nitrite as N	0.08	0.11	0.11			0.04
Phosphorus (TOT)	0.012	0.006	0.007			0.006
Total Nitrogen as N (Persulfate)	0.2	0.21	0.21			0.1
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009	<0.009	<0.009			<0.009
Antimony (DIS)						
Antimony (TRC)	<0.0005	<0.0005	<0.0005			<0.0005
Arsenic (DIS)						
Arsenic (TRC)	<0.001	<0.001	<0.001			<0.001
Barium (DIS)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- J: The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-14	SW-17	SW-17	SW-18	SW-19	SW-2
Water	Sample Date	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019
	Sample Time	2:10:00 PM	3:50:00 PM	4:00:00 PM	2:25:00 PM	8:35:00 AM	1:35:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro	Energy Labs
	Lab Number	H19110278-004	H19110278-007	H19110278-008	z	z	H19110278-002
	Sample Number	BBC-1911-103	BBC-1911-109	BBC-1911-110	BBC-1911-105	BBC-1911-113	BBC-1911-101
	Remarks						

Metals - Trace Constituents	Multiple Units				
Barium (TRC)	0.122	0.153	0.156		0.104
Beryllium (DIS)					
Beryllium (TRC)	<0.0008	<0.0008	<0.0008		<0.0008
Cadmium (DIS)					
Cadmium (TRC)	<0.00003	<0.00003	<0.00003		<0.00003
Chromium (DIS)					
Chromium (TRC)	<0.01	<0.01	<0.01		<0.01
Cobalt (DIS)					
Cobalt (TRC)	<0.01	<0.01	<0.01		<0.01
Copper (DIS)					
Copper (TRC)	<0.002	<0.002	<0.002		<0.002
Iron (DIS)					
Iron (TRC)	0.17	0.11	0.12		0.16
Lead (DIS)					
Lead (TRC)	<0.0003	<0.0003	<0.0003		<0.0003
Manganese (DIS)					
Manganese (TRC)	<0.005	0.029	0.029		0.008
Mercury (DIS)					
Mercury (TRC)	<0.005	<0.005	<0.005		<0.005
Molybdenum (DIS)					
Molybdenum (TRC)	<0.002	<0.002	<0.002		<0.002
Nickel (DIS)					
Nickel (TRC)	<0.001	<0.001	<0.001		<0.001
Selenium (DIS)					
Selenium (TRC)	<0.0002	<0.0002	<0.0002		<0.0002
Silver (DIS)					
Silver (TRC)	<0.0002	<0.0002	<0.0002		<0.0002
Strontium (DIS)					
Strontium (TRC)	0.128	0.144	0.145		0.119
Thallium (DIS)					
Thallium (TRC)	<0.0002	<0.0002	<0.0002		<0.0002
Uranium (DIS)					
Uranium (TRC)	0.0006	0.0007	0.0007		0.0003

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-14	SW-17	SW-17	SW-18	SW-19	SW-2
Water	Sample Date	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019	11/11/2019
	Sample Time	2:10:00 PM	3:50:00 PM	4:00:00 PM	2:25:00 PM	8:35:00 AM	1:35:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Hydro	Hydro	Energy Labs
	Lab Number	H19110278-004	H19110278-007	H19110278-008	z	z	H19110278-002
	Sample Number	BBC-1911-103	BBC-1911-109	BBC-1911-110	BBC-1911-105	BBC-1911-113	BBC-1911-101
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Zinc (DIS)						
	Zinc (TRC)	<0.002	<0.002	<0.002			0.002

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 12/12/2019 10:10:37 AM

Sample Type:	Station (Site)	SW-3	SW-4	SW-5	SW-6	SW-8	SW-9
Water	Sample Date	11/11/2019	11/11/2019	11/11/2019	11/12/2019	11/11/2019	11/11/2019
	Sample Time	3:40:00 PM	2:20:00 PM	4:15:00 PM	9:50:00 AM	4:50:00 PM	3:00:00 PM
	Lab	Energy Labs	Hydro	Hydro	Energy Labs	Hydro	Hydro
	Lab Number	H19110278-006	z	z	H19110278-010	z	z
	Sample Number	BBC-1911-108	BBC-1911-104	BBC-1911-111	BBC-1911-115	BBC-1911-112	BBC-1911-107
	Remarks						

Field Parameters	Multiple Units					
Depth To Water						
Dissolved Oxygen	13.49			7.17	9.29	14.85
EH						
Field pH	7.99			8.09	7.64	7.44
Field Specific Conductivity	421			407	431	448
Flow	NM-ICED	NF-DRY	NM-DRY	NF-ICED	NF-ICED	NM-ICED
Flow						
Water Temperature	-0.01			0.08	0	0.11
Physical Parameters	mg/L					
Total Dissolved Solids	239 D			222 D		
Total Suspended Solids	<4			11 J		
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	200			220		
Calcium (DIS)	50			51		
Chloride	5			<1		
Fluoride	0.2			0.1		
Hardness as CaCO3	236			228		
Magnesium (DIS)	27			25		
Potassium (DIS)	1			1		
Sodium (DIS)	2			3		
Sulfate	24			14		
Nutrients	mg/L					
Nitrate + Nitrite as N	0.06			0.08		
Phosphorus (TOT)	0.007			0.024		
Total Nitrogen as N (Persulfate)	0.12			0.15		
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009			0.024		
Antimony (DIS)						
Antimony (TRC)	<0.0005			<0.0005		
Arsenic (DIS)						
Arsenic (TRC)	<0.001			<0.001		
Barium (DIS)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-3	SW-4	SW-5	SW-6	SW-8	SW-9
Water	Sample Date	11/11/2019	11/11/2019	11/11/2019	11/12/2019	11/11/2019	11/11/2019
	Sample Time	3:40:00 PM	2:20:00 PM	4:15:00 PM	9:50:00 AM	4:50:00 PM	3:00:00 PM
	Lab	Energy Labs	Hydro	Hydro	Energy Labs	Hydro	Hydro
	Lab Number	H19110278-006	z	z	H19110278-010	z	z
	Sample Number	BBC-1911-108	BBC-1911-104	BBC-1911-111	BBC-1911-115	BBC-1911-112	BBC-1911-107
	Remarks						

Metals - Trace Constituents	Multiple Units					
Barium (TRC)	0.147		0.128			
Beryllium (DIS)						
Beryllium (TRC)	<0.0008		<0.0008			
Cadmium (DIS)						
Cadmium (TRC)	<0.00003		<0.00003			
Chromium (DIS)						
Chromium (TRC)	<0.01		<0.01			
Cobalt (DIS)						
Cobalt (TRC)	<0.01		<0.01			
Copper (DIS)						
Copper (TRC)	<0.002		<0.002			
Iron (DIS)						
Iron (TRC)	0.04		0.37			
Lead (DIS)						
Lead (TRC)	<0.0003		0.0003			
Manganese (DIS)						
Manganese (TRC)	<0.005		0.02			
Mercury (DIS)						
Mercury (TRC)	<0.005		<0.005			
Molybdenum (DIS)						
Molybdenum (TRC)	<0.002		<0.002			
Nickel (DIS)						
Nickel (TRC)	<0.001		<0.001			
Selenium (DIS)						
Selenium (TRC)	<0.0002		<0.0002			
Silver (DIS)						
Silver (TRC)	<0.0002		<0.0002			
Strontium (DIS)						
Strontium (TRC)	0.119		0.165			
Thallium (DIS)						
Thallium (TRC)	<0.0002		<0.0002			
Uranium (DIS)						
Uranium (TRC)	0.0006		0.0007			

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SW-3	SW-4	SW-5	SW-6	SW-8	SW-9
Water	Sample Date	11/11/2019	11/11/2019	11/11/2019	11/12/2019	11/11/2019	11/11/2019
	Sample Time	3:40:00 PM	2:20:00 PM	4:15:00 PM	9:50:00 AM	4:50:00 PM	3:00:00 PM
	Lab	Energy Labs	Hydro	Hydro	Energy Labs	Hydro	Hydro
	Lab Number	H19110278-006	z	z	H19110278-010	z	z
	Sample Number	BBC-1911-108	BBC-1911-104	BBC-1911-111	BBC-1911-115	BBC-1911-112	BBC-1911-107
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Zinc (DIS)						
	Zinc (TRC)	0.003			<0.002		

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	USGS-SC1
Water	Sample Date	11/11/2019
	Sample Time	1:50:00 PM
	Lab	Energy Labs
	Lab Number	H19110278-003
	Sample Number	BBC-1911-102
	Remarks	

Field Parameters	Multiple Units
Depth To Water	
Dissolved Oxygen	13.63
EH	
Field pH	8.02
Field Specific Conductivity	374
Flow	NM-ICED
Flow	
Water Temperature	0.01
Physical Parameters	mg/L
Total Dissolved Solids	203 D
Total Suspended Solids	10 J
Major Constituents - Commons Ions	mg/L
Alkalinity as CaCO3	200
Calcium (DIS)	58
Chloride	2
Fluoride	<0.1
Hardness as CaCO3	210
Magnesium (DIS)	16
Potassium (DIS)	1
Sodium (DIS)	2
Sulfate	8
Nutrients	mg/L
Nitrate + Nitrite as N	0.06
Phosphorus (TOT)	0.01
Total Nitrogen as N (Persulfate)	0.11
Metals - Trace Constituents	Multiple Units
Aluminum (DIS)	<0.009
Antimony (DIS)	
Antimony (TRC)	<0.0005
Arsenic (DIS)	
Arsenic (TRC)	<0.001
Barium (DIS)	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- J: The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	USGS-SC1
Water	Sample Date	11/11/2019
	Sample Time	1:50:00 PM
	Lab	Energy Labs
	Lab Number	H19110278-003
	Sample Number	BBC-1911-102
	Remarks	

Metals - Trace Constituents	Multiple Units
Barium (TRC)	0.076
Beryllium (DIS)	
Beryllium (TRC)	<0.0008
Cadmium (DIS)	
Cadmium (TRC)	<0.00003
Chromium (DIS)	
Chromium (TRC)	<0.01
Cobalt (DIS)	
Cobalt (TRC)	<0.01
Copper (DIS)	
Copper (TRC)	<0.002
Iron (DIS)	
Iron (TRC)	0.34
Lead (DIS)	
Lead (TRC)	<0.0003
Manganese (DIS)	
Manganese (TRC)	0.015
Mercury (DIS)	
Mercury (TRC)	<0.005
Molybdenum (DIS)	
Molybdenum (TRC)	<0.002
Nickel (DIS)	
Nickel (TRC)	<0.001
Selenium (DIS)	
Selenium (TRC)	<0.0002
Silver (DIS)	
Silver (TRC)	<0.0002
Strontium (DIS)	
Strontium (TRC)	0.152
Thallium (DIS)	
Thallium (TRC)	<0.0002
Uranium (DIS)	
Uranium (TRC)	0.0004

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	USGS-SC1
Water	Sample Date	11/11/2019
	Sample Time	1:50:00 PM
	Lab	Energy Labs
	Lab Number	H19110278-003
	Sample Number	BBC-1911-102
	Remarks	

Metals - Trace Constituents	Multiple Units
Zinc (DIS)	
Zinc (TRC)	<0.002

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

QUALITY CONTROL / QUALITY ASSURANCE
DATA VERIFICATION REPORT

BLACK BUTTE COPPER
WATER RESOURCE MONITORING

DECEMBER 2019

Prepared by
Hydrometrics, Inc.
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Helena, MT 59601

JANUARY 2020

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APPENDIX 2: DATABASE SUMMARY REPORT

GLOSSARY OF TERMS

CCB ..... Continuing Calibration Blank

CCV ..... Continuing Calibration Verification

CLP ..... Contract Laboratory Program

CRDL..... Contract Required Detection Limit

DIé é é é é Deionized Water

FAA ..... Flame Atomic Absorption

GFAA..... Graphite Furnace Atomic Absorption

HGAA ..... Hydride Generation Atomic Absorption

ICB..... Initial Calibration Blank

ICP ..... Inductively Coupled Plasma

ICV ..... Initial Calibration Verification

IDL..... Instrument Detection Limit

LCS ..... Laboratory Control Sample

MSA..... Method of Standard Additions

PB ..... Preparation Blank

PRDL ..... Project Required Detection Limit

QAPP ..... Quality Assurance Project Plan

QC..... Quality Control

RPD..... Relative Percent Difference

RSD..... Relative Standard Deviation

SOW..... Statement of Work

TDS..... Total Dissolved Solids

DATA VALIDATION REPORT

1. INTRODUCTION

This validation applies to 30 samples collected for the Black Butte Tintina surface water and groundwater monitoring program. All sampling occurred in December 2019. All samples were submitted to Energy Laboratories in Helena, Montana and were assigned Laboratory IDs: H19120486 and Hh19120487. The total number of samples included: 9 groundwater and surface water samples including 2 field duplicates, and 2 field deionized (DI and Rinsate) blanks and 17 field site observations.

- Validation procedures used are generally consistent with:
  (Check all that apply)
  _X_ EPA CLP National Functional Guidelines for Inorganics Data Review
  _X_ EPA CLP National Functional Guidelines for Organic Data Review
  _X_ MDEQ, 2018. Montana DEQ Waste Management and Remediation Division Data Validation Summary Form. Version 1.3.0, Revised January 26, 2018

2. DELIVERABLES

- All laboratory document deliverables were present as specified in the CLP-Statement of Work and/or the project contract
  _X_ Yes
  ___ No

- All documentation of field procedures was provided as required
  _X_ Yes
  ___ No

3. FIELD QUALITY CONTROL SAMPLES

- Field blanks

  Please note that the highest blank value associated with any particular analyte is the blank value used for the flagging process.
  DI, trip, rinsate, or any other field blanks have been carried out at the proper frequency
  _X_ Yes
  ___ No

  Reported results on the field blanks are less than the contract required detection limits (CRDL) or the project required detection limits (PRDL) if project detection limits have been specified
  _X_ Yes
  ___ No

  Field duplicates have been collected at the proper frequency
  _X_ Yes
  ___ No

  Field duplicate relative percent differences (RPDs) were within the required control limits (25 percent or less for water matrix and 50 percent or less for soil matrix)
  _X_ Yes
  ___ No

4. LABORATORY PROCEDURES

- Laboratory Case Narrative Notes any non conformance issues with the analytical data
  ___Yes
  ___No
  _X_NA

- Samples were received by the laboratory at the proper temperature
  _X_Yes
  ___No

- Holding times met
  _X_Yes
  ___No

- Consistency with project requirements
  _X_Yes
  ___No

- Sample Conditions met at Check-in
  _X_Yes
  ___No

- Reporting units appropriate for the associated sample matrix and methods of analysis
  _X_Yes
  ___No

- Project specified methods were used
  _X_Yesï see following list of methods used
  ___No

  NOTES: It should be noted that parameters were analyzed using different methods than requested; however, all methods used by the laboratory are comparable. The following methods were used during analyses: A2540D, A2540C, A2320B, E300.0, A4500-F C, A2340B, E353.2, A4500-N C, E365.1, E200.8, and E200.7.

- Detection Limits met project required detection limits (PRDL)
  _X_Yesï see following notes
  ___No

  NOTES: It should be noted that total dissolved solids had a reporting limit increases due to sample matrix interference (D). TDS had a limit of 10 mg/l used not the requested 4 mg/l. A reporting limit of 0.01 mg/l was used for nitrate + nitrite as n as replacement of the 0.003 mg/l requested.

5. INITIAL OR CONTINUING CALIBRATION VERIFICATION RESULTS

- Initial or Continuing Calibration Verification samples were within acceptable limits
  _X_Yes
  ___No

6. LABORATORY BLANKS

- **PREPARATION/METHOD BLANKS**

  Preparation/Method blanks were prepared and analyzed at the required frequency
  _X_ Yes
  ___ No

  All analytes in the preparation blank were less than the CRDL (or PRDL if a project detection limit has been specified)
  _X_ Yes
  ___ No

7. MATRIX SPIKE /MATRIX SPIKE DUPLICATES (MS/MSD)

- Matrix spike samples were analyzed at the proper frequency
  _X_ Yes
  ____ No

- Matrix spike recoveries were within control limits
  ____ Yes
  _X_ No ï see following table

QC Sample ID	Parameter	% REC	Lab Flag	Lab Advisory Limits (% REC)
H19120482-003BMS2	Calcium	134	S	70-130
	Sodium	143	S	70-130
H19120487-001DMS	Total Phosphorus	112	S	90-110

S ï Spike recovery outside of recovery limits

- Matrix spike RPDôs were within control limits
  _X_ Yes
  ____ No

- Matrix spike duplicate samples were analyzed at the proper frequency
  _X_ Yes
  ____ No

- Matrix spike duplicate RPDôs were within control limits
  ____ Yes
  _X_ No ï see following table

QC Sample ID	Parameter	% RPD	Lab Flag	Lab Advisory Limits (% RPD)
H19120486-001BMSD	Iron	23	R	20

R ï Percent Recovery Difference outside of recovery limits

- Matrix spike duplicate recoveries were within the laboratory specified control limits.
  ____ Yes
  _X_ No ï see following table

QC Sample ID	Parameter	% REC	Lab Flag	Lab Advisory Limits (% REC)
H19110284-001AMSD	Nitrate + Nitrite as N	111	S	90-110

S ï Spike recovery outside of recovery limits

8. LABORATORY CONTROL SAMPLES

- LCS Samples

Laboratory Control Samples used the correct matrix and concentrations
___Yes
___No
_X_NA

Laboratory Control Samples were prepared and analyzed at the required frequency
___Yes
___No
_X_NA

All analytes in the laboratory control samples were less than the control limits specified
_X_Yes
____No

9. DATA QUALITY OBJECTIVES

- Project data quality objectives (DQOs) met

_X_Yes
___No

Accuracy

Accuracy for this project is the degree of agreement between an analytical measurement and a reference accepted as a true value. The accuracy of a measurement system can be affected by errors introduced by field contamination, sample preservation, sample handling, sample preparation and analytical techniques. Analysis of MS/MSD samples, laboratory control spikes (LCS) or blank spikes, surrogate standards and method blanks are typically used to calculate the percent recovery for evaluating accuracy. Accuracy for this sampling event was 98 percent.

Precision

Precision for this project is the degree of mutual agreement between individual measurements of the same property under similar conditions. Combined field and laboratory precision is evaluated by collecting and analyzing field duplicate and then calculating the variance between the samples, typically as a relative percent difference (RPD). Laboratory analytical precision is evaluated by analyzing matrix spike/matrix spike duplicate samples and using the results to calculate an RPD. The combined precision was 99 percent for this sampling event for both laboratory and field.

Representativeness

Representativeness for this project is the degree to which sample data accurately and precisely represent the characteristics of a population, and variations in a parameter at a sampling point or an environmental condition that they are intended to represent. Typically representative data will be obtained through careful selection of sampling locations and analytical parameters; proper collection and handling of samples and through use and consistent application of established field and laboratory procedures. Evaluation of field and laboratory blank samples for presence of contaminants can be useful in evaluating representativeness of sample results. Both laboratory and field representativeness for this sampling event was 100 percent.

Completeness

The target completeness for this project is the percent of the measurements valid (not rejected). Valid data are obtained when samples are collected and analyzed in accordance with quality control procedures outlined in the SAP, and when none of the QC criteria that affect data usability are exceeded. Once data validation is complete the number of useable sample results is divided by the total number of sample results planned for the investigation to determine the percent completeness. Completeness for this sampling event was 100 percent.

Comparability

Comparability is the expression of the confidence with which one data set can be compared with another. Comparability of data is achieved by consistently following standard field and laboratory procedures and by using standard measurement units in reporting analytical data. This criterion was met.

REFERENCES

MDEQ, 2018. Montana DEQ Waste Management and Remediation Division Data Validation Summary Form. Version 1.3.0, Revised January 26, 2018

EPA, 2017a. National Functional Guidelines for Organic Superfund Methods Data Review. EPA-540-R-2017-002. Office of Superfund Remediation and Technology Innovation. January 2017.

EPA, 2017b. National Functional Guidelines for Inorganic Superfund Methods Data Review. EPA-540-R-2017-001. Office of Superfund Remediation and Technology Innovation. January 2017.

Hem, J.D., 1992. Study and Interpretation of the Chemical Characteristics of Natural Water, 3rd edition. US Geological Survey Water Supply Paper 2254.

APPENDIX 1

TABLES

TABLE 1.

DATA VALIDATION CODES AND DEFINITIONS

CODE	DEFINITION
J	-The associated numerical value is an estimated quantity because quality control criteria were not met.
B	- Blank contamination. Indicates possible high bias and / or false positive. The associated value is an estimate.
R	- Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis is necessary for verification.
A	- Anomalous data. No apparent explanation for discrepancy in data. (Not an EPA code.)

Table 2. Summary of Flagged Data

StationName	Sample Date	Field Sample Id	Lab Name	Lab Sample Id	Parameter Name	Sample Result	Reporting Units	Validation Flag	Exceedance Type

Black Butte Mine Data Comparison Summary

Report Date: January 27, 2020

SAMPLE NO BBC-1912-122 LAB NO: z | STATION:DS-1

12/19/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Gallons Per Min)	0	03/25/15-11/12/19	OBS	34	34	0.0	62.3	4.5	6.1	14	0.3	L

SAMPLE NO BBC-1912-105 LAB NO: z | STATION:DS-2

12/19/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	6.82	10/12/11-08/19/14	OBS	2	2	4.3	9.5	6.4	6.9	2.9	0.2	
Field pH (s.u.)	7.89	10/12/11-08/19/14	OBS	2	2	6.5	7.9	7.1	7.2	0.5	1.5	
Field SC (umhos/cm)	367	10/12/11-08/19/14	OBS	2	2	331.0	354.0	342.3	342.5	68.4	0.4	H
Flow (Gallons Per Min)	0.32	10/12/11-08/19/14	OBS	2	2	0.3	0.8	0.4	0.5	2	0.1	
Water Temp (Deg C)	1.7	10/12/11-08/19/14	OBS	2	2	5.7	13.3	8.7	9.5	4.8	1.5	L

SAMPLE NO BBC-1912-127 LAB NO: z | STATION:DS-3

12/19/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Gallons Per Min)	0	08/06/14-10/24/19	OBS	30	30	0.3	159.0	4.1	6.2	20.9	0.2	L

SAMPLE NO BBC-1912-128 LAB NO: z | STATION:DS-4

12/19/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Gallons Per Min)	0	10/13/11-08/29/18	OBS	10	8	< 1	7.5	2.6	2.4	3.3	0.8	L

SAMPLE NO BBC-1912-106 LAB NO: z | STATION:SP-10

12/19/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Gallons Per Min)	0	05/23/18-11/12/19	OBS	14	13	< 0.1	59.7	3.0	2.3	16.4	0.2	L

SAMPLE NO BBC-1912-129 LAB NO: z | STATION:SP-3

12/19/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Gallons Per Min)	0	07/20/11-11/12/19	OBS	32	30	< 0	8.1	0.6	0.6	1.8	0.3	L

SAMPLE NO BBC-1912-109 LAB NO: H19120486-002 | STATION:SP-4

12/19/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	9.89	07/21/11-11/13/19	O	57	57	6.7	14.0	9.8	9.7	1.3	0.0	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Field pH (s.u.)	7.78	07/21/11-11/13/19	O	56	56	7.0	8.6	7.7	7.7	0.3	0.3	
Field SC (umhos/cm)	430	07/21/11-11/13/19	O	57	57	162.0	481.0	420.9	430	44.1	0.2	
Flow (Gallons Per Min)	5.4	07/21/11-11/13/19	O	49	49	0.0	50.3	3.7	5.4	10.8	0.2	
Water Temp (Deg C)	5.8	07/21/11-11/13/19	O	56	56	0.1	12.2	5.7	6.7	2	0.0	
TDS (mg/L)	229	07/21/11-11/13/19	O	58	58	202.0	272.0	246.1	248	13.6	1.3	
TSS (mg/L)	< 10	08/28/13-11/13/19	O	55	32	5.0	890.0	19.4	11	118.8	0.1	
Alkalinity (mg/L)	200	07/21/11-11/13/19	O	58	58	190.0	210.0	200.6	200	4.7	0.1	
Calcium (mg/L)	48	04/24/19-11/13/19	O	8	8	46.0	53.0	48.2	47	2.3	0.1	
Chloride (mg/L)	< 1	07/21/11-11/13/19	O	58	14	< 1	< 1					
Fluoride (mg/L)	0.2	07/21/11-11/13/19	O	58	58	0.2	0.3	0.2	0.2	0	0.0	L
Hardness (mg/L)	233	07/21/11-11/13/19	O	57	57	208.0	255.0	234.7	234	12	0.1	
Magnesium (mg/L)	27	04/24/19-11/13/19	O	8	8	24.0	28.0	25.0	24.5	1.4	1.5	
Potassium (mg/L)	2	04/24/19-11/13/19	O	8	8	2.0	2.0	2.0	2	0	0.0	H
Sodium (mg/L)	2	04/24/19-11/13/19	O	8	8	2.0	2.0	2.0	2	0	0.0	H
Sulfate (mg/L)	34	07/21/11-11/13/19	O	58	58	10.0	45.0	34.8	37.5	6.5	0.1	
N+N (mg/L)	0.28	07/21/11-11/13/19	O	58	58	0.2	0.4	0.3	0.3	0	0.0	
Aluminum (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	1	< 0	0.0					
Antimony (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .001					
Barium (DIS) (mg/L)	0.113	04/24/19-11/13/19	O	8	8	0.1	0.1	0.1	0.1	0	0.0	
Beryllium (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .00003					
Chromium (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .002					
Iron (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	4	< 0	0.1					
Lead (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .0003					
Manganese (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	4	< 0	0.0					
Mercury (DIS) (ug/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .001					
Selenium (DIS) (mg/L)	0.0005	04/24/19-11/13/19	O	8	8	0.0	0.0	0.0	0	0	0.0	H
Silver (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.072	04/24/19-11/13/19	O	8	8	0.1	0.1	0.1	0.1	0	0.0	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Thallium (DIS) (mg/L)	0.0003	04/24/19-11/13/19	O	8	8	0.0	0.0	0.0	0	0	0.0	H
Uranium (DIS) (mg/L)	0.0005	04/24/19-11/13/19	O	8	8	0.0	0.0	0.0	0	0	0.0	H
Zinc (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	2	< 0	0.0					

SAMPLE NO BBC-1912-108 LAB NO: H19120486-001

STATION:SP-6

12/19/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	9.57	10/12/11-11/12/19	O	50	50	5.5	282.0	10.3	9.5	37.8	0.0	
Field pH (s.u.)	7.9	10/12/11-11/12/19	O	49	49	5.8	8.7	7.3	7.5	0.6	0.9	
Field SC (umhos/cm)	285	10/12/11-11/12/19	O	50	50	188.0	327.0	268.1	269.5	18.9	0.9	
Flow (Gallons Per Min)	0.83	10/12/11-11/12/19	O	47	39	0.3	4.1	1.1	1	1	0.3	
Water Temp (Deg C)	6.8	10/12/11-11/12/19	O	49	49	4.4	10.3	7.2	7.5	1.3	0.3	
TDS (mg/L)	165	10/12/11-11/12/19	O	51	51	145.0	188.0	161.8	161	8.4	0.4	
TSS (mg/L)	< 10	08/28/13-11/12/19	O	49	14	< 4	216.0					
Alkalinity (mg/L)	140	10/12/11-11/12/19	O	50	50	120.0	160.0	135.2	130	7.5	0.6	
Calcium (mg/L)	34	04/24/19-11/12/19	O	9	9	32.0	41.0	35.9	36	3.1	0.6	
Chloride (mg/L)	1	10/12/11-11/12/19	O	51	14	< 1	2.0					
Fluoride (mg/L)	0.2	10/12/11-11/12/19	O	51	51	0.1	0.2	0.2	0.2	0	0.0	H
Hardness (mg/L)	144	10/12/11-11/12/19	O	51	51	129.0	165.0	141.5	141	8.1	0.3	
Magnesium (mg/L)	14	04/24/19-11/12/19	O	9	9	12.0	15.0	13.3	13	1.2	0.6	
Potassium (mg/L)	< 1	04/24/19-11/12/19	O	9	3	< 1	< 1					
Sodium (mg/L)	2	04/24/19-11/12/19	O	9	9	2.0	2.0	2.0	2	0	0.0	H
Sulfate (mg/L)	11	10/12/11-11/12/19	O	51	51	7.0	12.0	9.1	9.8	1.5	1.3	
N+N (mg/L)	0.4	10/12/11-11/12/19	O	51	51	0.3	0.7	0.4	0.4	0.1	0.1	
Aluminum (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	3	< 0	0.1					
Antimony (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .001					
Barium (DIS) (mg/L)	0.202	04/24/19-11/12/19	O	9	9	0.2	0.2	0.2	0.2	0	0.0	
Beryllium (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .002					
Iron (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	4	0.0	0.1					
Lead (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .0003					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Manganese (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .005					
Mercury (DIS) (ug/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .005					
Molybdenum (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .001					
Selenium (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	2	< 0	< .0002					
Silver (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.0769	04/24/19-11/12/19	O	9	9	0.1	0.1	0.1	0.1	0	0.0	
Thallium (DIS) (mg/L)	0.0005	04/24/19-11/12/19	O	9	9	0.0	0.0	0.0	0	0	0.0	
Uranium (DIS) (mg/L)	0.0004	04/24/19-11/12/19	O	9	9	0.0	0.0	0.0	0	0	0.0	L
Zinc (DIS) (mg/L)	< 0	04/24/19-11/12/19	O	9	1	0.0	0.0					

SAMPLE NO BBC-1912-110 LAB NO: H19120486-003

STATION:SP-7

12/19/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	2.87	03/26/15-11/13/19	O	54	54	2.0	11.0	3.6	3.5	1.6	0.5	
Field pH (s.u.)	7.29	03/26/15-11/13/19	O	53	53	6.2	8.2	7.4	7.4	0.3	0.3	
Field SC (umhos/cm)	340	03/26/15-11/13/19	O	54	54	196.0	354.0	322.0	330	27.1	0.7	
Flow (Gallons Per Min)	22.4	03/26/15-11/13/19	O	48	48	6.7	136.0	19.1	16.2	26.3	0.1	
Water Temp (Deg C)	6.7	03/26/15-11/13/19	O	53	53	5.1	7.9	6.6	6.9	0.6	0.2	
TDS (mg/L)	184	03/26/15-11/13/19	O	54	54	173.0	200.0	187.4	188	6.6	0.5	
TDS (mg/L)	182	03/26/15-11/13/19	DUP	54	54	173.0	200.0	187.4	188	6.6	0.8	
TSS (mg/L)	< 10	03/26/15-11/13/19	DUP	54	7	< 4	146.0					
TSS (mg/L)	< 10	03/26/15-11/13/19	O	54	7	< 4	146.0					
Alkalinity (mg/L)	170	03/26/15-11/13/19	O	54	54	160.0	170.0	166.2	170	4.7	0.8	H
Alkalinity (mg/L)	170	03/26/15-11/13/19	DUP	54	54	160.0	170.0	166.2	170	4.7	0.8	H
Calcium (mg/L)	42	04/24/19-11/13/19	DUP	8	8	40.0	44.0	42.0	42	1.2	0.0	
Calcium (mg/L)	42	04/24/19-11/13/19	O	8	8	40.0	44.0	42.0	42	1.2	0.0	
Chloride (mg/L)	2	03/26/15-11/13/19	DUP	54	54	1.0	2.0	1.8	2	0.3	0.7	H
Chloride (mg/L)	2	03/26/15-11/13/19	O	54	54	1.0	2.0	1.8	2	0.3	0.7	H
Fluoride (mg/L)	0.3	03/26/15-11/13/19	O	54	54	0.3	0.4	0.3	0.3	0	0.0	L
Fluoride (mg/L)	0.3	03/26/15-11/13/19	DUP	54	54	0.3	0.4	0.3	0.3	0	0.0	L
Hardness (mg/L)	169	03/26/15-11/13/19	O	54	54	153.0	178.0	167.2	167	5.6	0.3	
Hardness (mg/L)	168	03/26/15-11/13/19	DUP	54	54	153.0	178.0	167.2	167	5.6	0.1	
Magnesium (mg/L)	15	04/24/19-11/13/19	DUP	8	8	13.0	15.0	14.1	14	0.6	1.5	H
Magnesium (mg/L)	16	04/24/19-11/13/19	O	8	8	13.0	15.0	14.1	14	0.6	3.1	*H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Potassium (mg/L)	3	04/24/19-11/13/19	DUP	8	8	3.0	3.0	3.0	3	0	0.0	H
Potassium (mg/L)	3	04/24/19-11/13/19	O	8	8	3.0	3.0	3.0	3	0	0.0	H
Sodium (mg/L)	5	04/24/19-11/13/19	O	8	8	4.0	5.0	4.9	5	0.3	0.5	H
Sodium (mg/L)	5	04/24/19-11/13/19	DUP	8	8	4.0	5.0	4.9	5	0.3	0.5	H
Sulfate (mg/L)	11	03/26/15-11/13/19	O	54	54	7.0	12.0	9.8	10	1.2	1.0	
Sulfate (mg/L)	11	03/26/15-11/13/19	DUP	54	54	7.0	12.0	9.8	10	1.2	1.0	
N+N (mg/L)	0.34	03/26/15-11/13/19	O	54	54	0.3	0.4	0.3	0.3	0	0.0	
N+N (mg/L)	0.34	03/26/15-11/13/19	DUP	54	54	0.3	0.4	0.3	0.3	0	0.0	
Aluminum (DIS) (mg/L)	< 0	04/24/19-11/13/19	DUP	8	1	< 0	0.0					
Aluminum (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	1	< 0	0.0					
Antimony (DIS) (mg/L)	< 0	04/24/19-11/13/19	DUP	8	0	< 0	< .0005					
Antimony (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .0005					
Arsenic (DIS) (mg/L)	0.004	04/24/19-11/13/19	DUP	8	8	0.0	0.0	0.0	0	0	0.0	H
Arsenic (DIS) (mg/L)	0.004	04/24/19-11/13/19	O	8	8	0.0	0.0	0.0	0	0	0.0	H
Barium (DIS) (mg/L)	0.114	04/24/19-11/13/19	O	8	8	0.1	0.1	0.1	0.1	0	0.0	
Barium (DIS) (mg/L)	0.115	04/24/19-11/13/19	DUP	8	8	0.1	0.1	0.1	0.1	0	0.0	
Beryllium (DIS) (mg/L)	< 0	04/24/19-11/13/19	DUP	8	0	< 0	< .0008					
Beryllium (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .00003					
Cadmium (DIS) (mg/L)	< 0	04/24/19-11/13/19	DUP	8	0	< 0	< .00003					
Chromium (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .01					
Chromium (DIS) (mg/L)	< 0	04/24/19-11/13/19	DUP	8	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	04/24/19-11/13/19	DUP	8	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .002					
Copper (DIS) (mg/L)	< 0	04/24/19-11/13/19	DUP	8	0	< 0	< .002					
Iron (DIS) (mg/L)	< 0	04/24/19-11/13/19	DUP	8	1	< 0	0.0					
Iron (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	1	< 0	0.0					
Lead (DIS) (mg/L)	< 0	04/24/19-11/13/19	DUP	8	0	< 0	< .0003					
Lead (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .0003					
Manganese (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .005					
Manganese (DIS) (mg/L)	< 0	04/24/19-11/13/19	DUP	8	0	< 0	< .005					
Mercury (DIS) (ug/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .005					
Mercury (DIS) (ug/L)	< 0	04/24/19-11/13/19	DUP	8	0	< 0	< .005					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Molybdenum (DIS) (mg/L)	< 0	04/24/19-11/13/19	DUP	8	0	< 0	< .002					
Molybdenum (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .001					
Nickel (DIS) (mg/L)	< 0	04/24/19-11/13/19	DUP	8	0	< 0	< .001					
Selenium (DIS) (mg/L)	0.0003	04/24/19-11/13/19	DUP	8	8	0.0	0.0	0.0	0	0	0.0	H
Selenium (DIS) (mg/L)	0.0003	04/24/19-11/13/19	O	8	8	0.0	0.0	0.0	0	0	0.0	H
Silver (DIS) (mg/L)	< 0	04/24/19-11/13/19	DUP	8	0	< 0	< .0002					
Silver (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.166	04/24/19-11/13/19	DUP	8	8	0.2	0.2	0.2	0.2	0	0.0	
Strontium (DIS) (mg/L)	0.165	04/24/19-11/13/19	O	8	8	0.2	0.2	0.2	0.2	0	0.0	
Thallium (DIS) (mg/L)	0.001	04/24/19-11/13/19	O	8	8	0.0	0.0	0.0	0	0	0.0	L
Thallium (DIS) (mg/L)	0.001	04/24/19-11/13/19	DUP	8	8	0.0	0.0	0.0	0	0	0.0	L
Uranium (DIS) (mg/L)	0.0009	04/24/19-11/13/19	DUP	8	8	0.0	0.0	0.0	0	0	0.0	H
Uranium (DIS) (mg/L)	0.0009	04/24/19-11/13/19	O	8	8	0.0	0.0	0.0	0	0	0.0	H
Zinc (DIS) (mg/L)	< 0	04/24/19-11/13/19	DUP	8	0	< 0	< .002					
Zinc (DIS) (mg/L)	< 0	04/24/19-11/13/19	O	8	0	< 0	< .002					

SAMPLE NO BBC-1912-114 LAB NO: H19120487-002

STATION:SW-1

12/20/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	11.59	05/24/11-11/11/19	O	86	86	3.9	15.0	10.9	10.8	2	0.3	
Field pH (s.u.)	8.29	05/24/11-11/11/19	O	85	85	5.3	8.7	7.9	8.1	0.6	0.7	
Field SC (umhos/cm)	334	05/24/11-11/11/19	O	86	86	176.0	363.0	282.9	309.5	53.1	1.0	
Flow (Cubic Ft Sec)	0	05/24/11-10/23/19	O	65	65	0.0	613.0	19.3	30.3	88.7	0.2	L
Water Temp (Deg C)	0.2	05/24/11-11/11/19	O	86	86	-1.0	15.5	0.7	4.1	4.7	0.1	
TDS (mg/L)	182	05/24/11-11/11/19	DUP	78	78	107.0	227.0	169.2	181	27.2	0.5	
TDS (mg/L)	179	05/24/11-11/11/19	O	78	78	107.0	227.0	169.2	181	27.2	0.4	
TSS (mg/L)	< 4	05/30/12-11/11/19	O	74	29	< 4	43.0					
TSS (mg/L)	< 4	05/30/12-11/11/19	DUP	74	29	< 4	43.0					
Alkalinity (mg/L)	170	05/24/11-11/11/19	O	78	78	87.0	200.0	152.4	170	31.3	0.6	
Alkalinity (mg/L)	170	05/24/11-11/11/19	DUP	78	78	87.0	200.0	152.4	170	31.3	0.6	
Calcium (mg/L)	48	04/24/19-11/11/19	DUP	8	8	24.0	49.0	39.3	43	10.1	0.9	
Calcium (mg/L)	49	04/24/19-11/11/19	O	8	8	24.0	49.0	39.3	43	10.1	1.0	H
Chloride (mg/L)	2	05/24/11-11/11/19	DUP	78	77	1.0	5.0	1.3	1	0.7	0.9	
Chloride (mg/L)	2	05/24/11-11/11/19	O	78	77	1.0	5.0	1.3	1	0.7	0.9	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Fluoride (mg/L)	< 0.1	05/24/11-11/11/19	DUP	78	24	0.1	0.2					
Fluoride (mg/L)	< 0.1	05/24/11-11/11/19	O	78	24	0.1	0.2					
Hardness (mg/L)	172	05/24/11-11/11/19	O	77	76	< 7	199.0	144.8	164	35.2	0.8	
Hardness (mg/L)	170	05/24/11-11/11/19	DUP	77	76	< 7	199.0	144.8	164	35.2	0.7	
Magnesium (mg/L)	12	04/24/19-11/11/19	O	8	8	7.0	15.0	10.4	11.5	2.8	0.6	
Magnesium (mg/L)	12	04/24/19-11/11/19	DUP	8	8	7.0	15.0	10.4	11.5	2.8	0.6	
Potassium (mg/L)	1	04/24/19-11/11/19	O	8	7	1.0	2.0	1.2	1	0.5	0.4	L
Potassium (mg/L)	1	04/24/19-11/11/19	DUP	8	7	1.0	2.0	1.2	1	0.5	0.4	L
Sodium (mg/L)	2	04/24/19-11/11/19	DUP	8	8	1.0	2.0	1.8	2	0.3	0.6	H
Sodium (mg/L)	2	04/24/19-11/11/19	O	8	8	1.0	2.0	1.8	2	0.3	0.6	H
Sulfate (mg/L)	7	05/24/11-11/11/19	DUP	78	78	2.0	18.0	5.2	5	2.1	0.9	
Sulfate (mg/L)	8	05/24/11-11/11/19	O	78	78	2.0	18.0	5.2	5	2.1	1.3	
N+N (mg/L)	0.11	05/24/11-11/11/19	DUP	78	36	< 0	0.2					
N+N (mg/L)	0.13	05/24/11-11/11/19	O	78	36	< 0	0.2					
Phosphorus (mg/L)	0.008	04/24/19-11/11/19	DUP	8	8	0.0	0.1	0.0	0	0	0.0	
Phosphorus (mg/L)	0.008	04/24/19-11/11/19	O	8	8	0.0	0.1	0.0	0	0	0.0	
Total N Pers (mg/L)	0.18	04/29/15-11/11/19	DUP	52	48	< 0	1.1	0.1	0.1	0.2	0.3	
Total N Pers (mg/L)	0.21	04/29/15-11/11/19	O	52	48	< 0	1.1	0.1	0.1	0.2	0.4	
Aluminum (DIS) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	3	< 0	0.4					
Aluminum (DIS) (mg/L)	< 0	04/24/19-11/11/19	O	8	3	< 0	0.4					
Antimony (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	0	< 0	< .0005					
Antimony (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0005					
Arsenic (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	1	< 0	< .001					
Arsenic (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	1	< 0	< .001					
Barium (TRC) (mg/L)	0.11	04/24/19-11/11/19	DUP	8	8	0.1	0.1	0.1	0.1	0	0.0	
Barium (TRC) (mg/L)	0.107	04/24/19-11/11/19	O	8	8	0.1	0.1	0.1	0.1	0	0.0	
Beryllium (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	0	< 0	< .0008					
Beryllium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0008					
Cadmium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	: .00003					
Cadmium (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	0	< 0	: .00003					
Chromium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .01					
Chromium (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	0	< 0	< .01					
Cobalt (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .01					
Cobalt (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	0	< 0	< .01					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Copper (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	1	< 0	0.0					
Copper (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	1	< 0	0.0					
Iron (TRC) (mg/L)	0.18	04/24/19-11/11/19	O	8	8	0.1	2.1	0.3	0.2	0.7	0.1	
Iron (TRC) (mg/L)	0.16	04/24/19-11/11/19	DUP	8	8	0.1	2.1	0.3	0.2	0.7	0.2	
Lead (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	2	< 0	0.0					
Lead (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	2	< 0	0.0					
Manganese (TRC) (mg/L)	0.016	04/24/19-11/11/19	DUP	8	8	0.0	0.1	0.0	0	0	0.0	
Manganese (TRC) (mg/L)	0.015	04/24/19-11/11/19	O	8	8	0.0	0.1	0.0	0	0	0.0	
Mercury (TRC) (ug/L)	< 0	04/24/19-11/11/19	DUP	8	3	< 0	0.0					
Mercury (TRC) (ug/L)	< 0	04/24/19-11/11/19	O	8	3	< 0	0.0					
Molybdenum (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .002					
Molybdenum (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	0	< 0	< .002					
Nickel (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	2	< 0	0.0					
Nickel (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	2	< 0	0.0					
Selenium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0002					
Selenium (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	0	< 0	< .0002					
Silver (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0002					
Silver (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	0	< 0	< .0002					
Strontium (TRC) (mg/L)	0.127	04/24/19-11/11/19	O	8	8	0.1	0.1	0.1	0.1	0	0.0	
Strontium (TRC) (mg/L)	0.128	04/24/19-11/11/19	DUP	8	8	0.1	0.1	0.1	0.1	0	0.0	
Thallium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0002					
Thallium (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	0	< 0	< .0002					
Uranium (TRC) (mg/L)	0.0004	04/24/19-11/11/19	O	8	8	0.0	0.0	0.0	0	0	0.0	H
Uranium (TRC) (mg/L)	0.0004	04/24/19-11/11/19	DUP	8	8	0.0	0.0	0.0	0	0	0.0	H
Zinc (TRC) (mg/L)	< 0	04/24/19-11/11/19	DUP	8	4	0.0	0.0					
Zinc (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	4	0.0	0.0					

SAMPLE NO BBC-1912-118 LAB NO: H19120487-005 STATION:SW-2

12/20/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	11.14	05/24/11-11/11/19	O	84	84	6.4	16.2	11.0	10.9	1.7	0.1	
Field pH (s.u.)	8.21	05/24/11-11/11/19	O	83	83	0.0	8.7	6.9	8.1	1	1.3	
Field SC (umhos/cm)	327	05/24/11-11/11/19	O	84	84	156.0	388.0	275.4	299.5	53.9	1.0	
Flow (Cubic Ft Sec)	0	05/24/11-10/23/19	O	56	56	0.0	250.0	12.2	21.4	48.5	0.3	L
Water Temp (Deg C)	0.15	05/24/11-11/11/19	O	84	84	-1.0	15.8	0.3	3.3	4.9	0.0	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

TDS (mg/L)	180	05/24/11-11/11/19	O	78	78	112.0	223.0	164.7	173	25.2	0.6	
TSS (mg/L)	23	05/30/12-11/11/19	O	74	20	< 4	105.0					
Alkalinity (mg/L)	170	05/24/11-11/11/19	O	78	78	80.0	200.0	149.6	160	27.8	0.7	
Calcium (mg/L)	48	04/24/19-11/11/19	O	8	8	25.0	48.0	39.0	43.5	8.2	1.1	H
Chloride (mg/L)	1	05/24/11-11/11/19	O	78	76	1.0	5.0	1.3	1	0.6	0.5	L
Fluoride (mg/L)	< 0.1	05/24/11-11/11/19	O	78	1	< 0.1	0.4					
Hardness (mg/L)	170	05/24/11-11/11/19	O	78	77	< 7	202.0	143.5	160.5	32.6	0.8	
Magnesium (mg/L)	12	04/24/19-11/11/19	O	8	8	6.0	13.0	9.7	11	2.2	1.0	
Potassium (mg/L)	1	04/24/19-11/11/19	O	8	7	1.0	1.0	1.0	1	0	0.0	H
Sodium (mg/L)	2	04/24/19-11/11/19	O	8	8	2.0	2.0	2.0	2	0	0.0	H
Sulfate (mg/L)	7	05/24/11-11/11/19	O	78	78	2.0	9.0	4.9	5	1.5	1.4	
N+N (mg/L)	0.1	05/24/11-11/11/19	O	78	36	< 0	0.1					
Phosphorus (mg/L)	0.016	04/24/19-11/11/19	O	8	8	0.0	0.1	0.0	0	0	0.0	
Total N Pers (mg/L)	0.19	04/29/15-11/11/19	O	52	46	< 0	1.4	0.1	0.1	0.2	0.4	
Aluminum (DIS) (mg/L)	< 0	04/24/19-11/11/19	O	8	3	< 0	0.5					
Antimony (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0005					
Arsenic (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	1	< 0	< .001					
Barium (TRC) (mg/L)	0.096	04/24/19-11/11/19	O	8	8	0.1	0.1	0.1	0.1	0	0.0	
Beryllium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0008					
Cadmium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	: .00003					
Chromium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .01					
Cobalt (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .01					
Copper (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	1	< 0	0.0					
Iron (TRC) (mg/L)	0.24	04/24/19-11/11/19	O	8	8	0.1	1.5	0.2	0.1	0.4	0.1	
Lead (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	1	< 0	0.0					
Manganese (TRC) (mg/L)	0.012	04/24/19-11/11/19	O	8	8	0.0	0.0	0.0	0	0	0.0	
Mercury (TRC) (ug/L)	< 0	04/24/19-11/11/19	O	8	2	< 0	0.0					
Molybdenum (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .002					
Nickel (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	2	< 0	0.0					
Selenium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0002					
Silver (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0002					
Strontium (TRC) (mg/L)	0.129	04/24/19-11/11/19	O	8	8	0.1	0.1	0.1	0.1	0	0.0	
Thallium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0002					
Uranium (TRC) (mg/L)	0.0003	04/24/19-11/11/19	O	8	8	0.0	0.0	0.0	0	0	0.0	H

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Zinc (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	4	0.0	0.0					

SAMPLE NO BBC-1912-125 LAB NO: z STATION:SW-3

PARAMETER	12/19/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Cubic Ft Sec)	0	05/24/11-09/23/19	OBS	32	32	0.0	4.9	0.2	0.1	0.8	0.2	L

SAMPLE NO BBC-1912-124 LAB NO: z STATION:SW-4

PARAMETER	12/19/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Cubic Ft Sec)	0	05/25/11-10/23/19	OBS	8	8	0.0	2.0	0.0	0	0.4	0.1	L

SAMPLE NO BBC-1912-123 LAB NO: z STATION:SW-7

PARAMETER	12/19/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Gallons Per Min)	0	05/24/11-09/25/19	OBS	23	23	0.0	128.4	4.6	8.1	19.9	0.2	L

SAMPLE NO BBC-1912-119 LAB NO: H19120487-006 STATION:USGS-SC1

PARAMETER	12/20/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	11.26	03/24/14-11/11/19	O	68	68	7.1	16.6	11.1	11.1	1.6	0.1	
Field pH (s.u.)	8.29	03/24/14-11/11/19	O	67	67	6.7	8.7	8.0	8.2	0.4	0.7	
Field SC (umhos/cm)	362	03/24/14-11/11/19	O	68	68	137.0	408.0	322.5	342.5	49.6	0.8	
Flow (Cubic Ft Sec)	0	05/05/14-10/23/19	O	44	44	0.0	111.3	8.7	18.8	36	0.2	L
Water Temp (Deg C)	0.37	03/24/14-11/11/19	O	68	68	-1.0	13.1	0.4	2.9	4.2	0.0	
TDS (mg/L)	201	03/24/14-11/11/19	O	66	66	132.0	230.0	188.2	195	19.6	0.7	
TSS (mg/L)	< 4	03/24/14-11/11/19	O	66	19	< 4	40.0					
Alkalinity (mg/L)	190	03/24/14-11/11/19	O	66	66	120.0	220.0	175.2	185	21.5	0.7	
Calcium (mg/L)	55	04/24/19-11/11/19	O	8	8	37.0	58.0	47.3	50	7.2	1.1	
Chloride (mg/L)	2	03/24/14-11/11/19	O	66	66	1.0	5.0	1.5	1	0.9	0.6	
Fluoride (mg/L)	< 0.1	03/24/14-11/11/19	O	66	1	< 0.1	< 0 .1					
Hardness (mg/L)	191	03/24/14-11/11/19	O	66	65	< 7	214.0	167.7	184	28.7	0.8	
Magnesium (mg/L)	13	04/24/19-11/11/19	O	8	8	9.0	16.0	11.8	12.5	2.2	0.5	
Potassium (mg/L)	1	04/24/19-11/11/19	O	8	8	1.0	1.0	1.0	1	0	0.0	H
Sodium (mg/L)	2	04/24/19-11/11/19	O	8	8	2.0	3.0	2.1	2	0.3	0.3	L
Sulfate (mg/L)	8	03/24/14-11/11/19	O	66	66	3.0	8.0	5.7	6	1.4	1.6	H
N+N (mg/L)	0.09	03/24/14-11/11/19	O	66	46	< 0	0.1	0.0	0	0	0.0	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Phosphorus (mg/L)	< 0	04/24/19-11/11/19	O	8	6	< 0	0.1	0.0	0	0	0.0	L
Total N Pers (mg/L)	0.13	04/29/15-11/11/19	O	52	42	< 0	1.1	0.1	0.1	0.2	0.2	
Aluminum (DIS) (mg/L)	< 0	04/24/19-11/11/19	O	8	2	< 0	0.1					
Antimony (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0005					
Arsenic (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .001					
Barium (TRC) (mg/L)	0.067	04/24/19-11/11/19	O	8	8	0.1	0.1	0.1	0.1	0	0.0	
Beryllium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0008					
Cadmium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	: .00003					
Chromium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .01					
Cobalt (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .01					
Copper (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .002					
Iron (TRC) (mg/L)	0.11	04/24/19-11/11/19	O	8	8	0.1	1.2	0.2	0.1	0.4	0.2	
Lead (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	2	< 0	0.0					
Manganese (TRC) (mg/L)	0.006	04/24/19-11/11/19	O	8	8	0.0	0.0	0.0	0	0	0.0	L
Mercury (TRC) (ug/L)	< 0	04/24/19-11/11/19	O	8	2	< 0	0.0					
Molybdenum (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .002					
Nickel (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	2	< 0	0.0					
Selenium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0002					
Silver (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0002					
Strontium (TRC) (mg/L)	0.142	04/24/19-11/11/19	O	8	8	0.1	0.2	0.1	0.1	0	0.0	
Thallium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0002					
Uranium (TRC) (mg/L)	0.0004	04/24/19-11/11/19	O	8	8	0.0	0.0	0.0	0	0	0.0	H
Zinc (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	3	< 0	0.0					

SAMPLE NO BBC-1912-120 LAB NO: H19120487-007

STATION:DI-Blank

12/20/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
TDS (mg/L)	< 10	N/A	FB	0							
TDS (mg/L)	< 10	N/A	FB	0							
TSS (mg/L)	< 4	N/A	FB	0							
TSS (mg/L)	< 10	N/A	FB	0							
Alkalinity (mg/L)	< 4	N/A	FB	0							
Alkalinity (mg/L)	< 4	N/A	FB	0							
Calcium (mg/L)	< 1	N/A	FB	0							
Calcium (mg/L)	< 1	N/A	FB	0							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Chloride (mg/L)	< 1	N/A	FB	0
Chloride (mg/L)	< 1	N/A	FB	0
Fluoride (mg/L)	< 0.1	N/A	FB	0
Fluoride (mg/L)	< 0.1	N/A	FB	0
Hardness (mg/L)	< 1	N/A	FB	0
Hardness (mg/L)	< 1	N/A	FB	0
Magnesium (mg/L)	< 1	N/A	FB	0
Magnesium (mg/L)	< 1	N/A	FB	0
Potassium (mg/L)	< 1	N/A	FB	0
Potassium (mg/L)	< 1	N/A	FB	0
Sodium (mg/L)	< 1	N/A	FB	0
Sodium (mg/L)	< 1	N/A	FB	0
Sulfate (mg/L)	< 1	N/A	FB	0
Sulfate (mg/L)	< 1	N/A	FB	0
N+N (mg/L)	< 0	N/A	FB	0
N+N (mg/L)	< 0	N/A	FB	0
Phosphorus (mg/L)	< 0	N/A	FB	0
Total N Pers (mg/L)	< 0	N/A	FB	0
Aluminum (DIS) (mg/L)	< 0	N/A	FB	0
Aluminum (DIS) (mg/L)	< 0	N/A	FB	0
Antimony (DIS) (mg/L)	< 0	N/A	FB	0
Antimony (TRC) (mg/L)	< 0	N/A	FB	0
Arsenic (DIS) (mg/L)	< 0	N/A	FB	0
Arsenic (TRC) (mg/L)	< 0	N/A	FB	0
Barium (DIS) (mg/L)	< 0	N/A	FB	0
Barium (TRC) (mg/L)	< 0	N/A	FB	0
Beryllium (DIS) (mg/L)	< 0	N/A	FB	0
Beryllium (TRC) (mg/L)	< 0	N/A	FB	0
Cadmium (DIS) (mg/L)	< 0	N/A	FB	0
Cadmium (TRC) (mg/L)	< 0	N/A	FB	0
Chromium (DIS) (mg/L)	< 0	N/A	FB	0
Chromium (TRC) (mg/L)	< 0	N/A	FB	0
Cobalt (DIS) (mg/L)	< 0	N/A	FB	0
Cobalt (TRC) (mg/L)	< 0	N/A	FB	0

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Copper (DIS) (mg/L)	< 0	N/A	FB	0
Copper (TRC) (mg/L)	< 0	N/A	FB	0
Iron (DIS) (mg/L)	< 0	N/A	FB	0
Iron (TRC) (mg/L)	< 0	N/A	FB	0
Lead (DIS) (mg/L)	< 0	N/A	FB	0
Lead (TRC) (mg/L)	< 0	N/A	FB	0
Manganese (TRC) (mg/L)	< 0	N/A	FB	0
Manganese (DIS) (mg/L)	< 0	N/A	FB	0
Mercury (DIS) (ug/L)	< 0	N/A	FB	0
Mercury (TRC) (ug/L)	< 0	N/A	FB	0
Molybdenum (DIS) (mg/L)	< 0	N/A	FB	0
Molybdenum (TRC) (mg/L)	< 0	N/A	FB	0
Nickel (DIS) (mg/L)	< 0	N/A	FB	0
Nickel (TRC) (mg/L)	< 0	N/A	FB	0
Selenium (DIS) (mg/L)	< 0	N/A	FB	0
Selenium (TRC) (mg/L)	< 0	N/A	FB	0
Silver (TRC) (mg/L)	< 0	N/A	FB	0
Silver (DIS) (mg/L)	< 0	N/A	FB	0
Strontium (TRC) (mg/L)	< 0	N/A	FB	0
Strontium (DIS) (mg/L)	< 0	N/A	FB	0
Thallium (TRC) (mg/L)	< 0	N/A	FB	0
Thallium (DIS) (mg/L)	< 0	N/A	FB	0
Uranium (DIS) (mg/L)	< 0	N/A	FB	0
Uranium (TRC) (mg/L)	< 0	N/A	FB	0
Zinc (TRC) (mg/L)	< 0	N/A	FB	0
Zinc (DIS) (mg/L)	< 0	N/A	FB	0

SAMPLE NO BBC-1912-117 LAB NO: H19120487-004

STATION:SW-14

12/20/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	9.28	04/13/16-11/11/19	O	41	41	7.6	15.0	10.6	10.4	1.7	0.8
Field pH (s.u.)	7.94	04/13/16-11/11/19	O	40	40	6.1	8.5	8.0	8.1	0.4	0.1
Field SC (umhos/cm)	428	04/13/16-11/11/19	O	41	41	263.0	439.0	378.5	394	43.7	1.1
Flow (Cubic Ft Sec)	0.39	02/25/16-11/11/19	O	39	39	0.0	15.5	0.6	1.2	3.6	0.1
Water Temp (Deg C)	2.3	04/13/16-11/11/19	O	41	41	-0.9	14.7	2.9	7.4	4.6	0.1

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

TDS (mg/L)	233	04/13/16-11/11/19	O	39	39	167.0	266.0	223.2	227	17.7	0.6	
TSS (mg/L)	< 4	04/13/16-11/11/19	O	39	8	< 4	18.0					
Alkalinity (mg/L)	220	04/13/16-11/11/19	O	39	39	130.0	220.0	203.7	210	20	0.8	H
Calcium (mg/L)	59	04/23/19-11/11/19	O	8	8	33.0	57.0	50.2	52.5	7	1.3	H
Chloride (mg/L)	2	04/13/16-11/11/19	O	39	39	1.0	4.0	1.9	2	0.5	0.1	
Fluoride (mg/L)	0.2	04/13/16-11/11/19	O	39	39	0.1	0.2	0.2	0.2	0	0.0	H
Hardness (mg/L)	227	04/13/16-11/11/19	O	39	39	136.0	245.0	209.4	213	20.8	0.8	
Magnesium (mg/L)	19	04/23/19-11/11/19	O	8	8	13.0	25.0	18.3	18.5	3.2	0.2	
Potassium (mg/L)	1	04/23/19-11/11/19	O	8	8	1.0	2.0	1.1	1	0.3	0.3	L
Sodium (mg/L)	3	04/23/19-11/11/19	O	8	8	2.0	3.0	2.1	2	0.3	3.0	H
Sulfate (mg/L)	10	04/13/16-11/11/19	O	39	39	6.0	19.0	9.0	8.7	2.8	0.4	
N+N (mg/L)	0.13	04/13/16-11/11/19	O	39	37	0.0	0.3	0.1	0.1	0.1	0.7	
Phosphorus (mg/L)	< 0	04/23/19-11/11/19	O	8	8	0.0	0.0	0.0	0	0	0.0	L
Total N Pers (mg/L)	0.23	04/13/16-11/11/19	O	36	35	< 0	1.3	0.2	0.2	0.2	0.3	
Aluminum (DIS) (mg/L)	< 0	04/23/19-11/11/19	O	8	2	< 0	0.0					
Antimony (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .0005					
Arsenic (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .001					
Barium (TRC) (mg/L)	0.124	04/23/19-11/11/19	O	8	8	0.1	0.1	0.1	0.1	0	0.0	H
Beryllium (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .0008					
Cadmium (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	: .00003					
Chromium (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .01					
Cobalt (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .01					
Copper (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .002					
Iron (TRC) (mg/L)	0.03	04/23/19-11/11/19	O	8	8	0.1	0.2	0.1	0.1	0	0.0	L
Lead (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .0003					
Manganese (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	5	< 0	0.0	0.0	0	0	0.0	L
Mercury (TRC) (ug/L)	< 0	04/23/19-11/11/19	O	8	3	< 0	0.0					
Molybdenum (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .002					
Nickel (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	1	< 0	< .001					
Selenium (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .0002					
Silver (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .0002					
Strontium (TRC) (mg/L)	0.133	04/23/19-11/11/19	O	8	8	0.1	0.1	0.1	0.1	0	0.0	H
Thallium (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .0002					
Uranium (TRC) (mg/L)	0.0005	04/23/19-11/11/19	O	8	8	0.0	0.0	0.0	0	0	0.0	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Zinc (TRC) (mg/L)	< 0	04/23/19-11/11/19	O	8	0	< 0	< .04					

SAMPLE NO BBC-1912-113 LAB NO: H19120487-001

STATION:SW-17

12/19/19 PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	10.8	01/17/18-11/11/19	O	20	20	8.5	12.9	10.2	10.2	1.1	0.5	
Field pH (s.u.)	8.19	01/17/18-11/11/19	O	20	20	7.5	8.4	8.1	8.1	0.3	0.4	
Field SC (umhos/cm)	434	01/17/18-11/11/19	O	20	20	319.0	488.5	427.9	439	45.5	0.1	
Water Temp (Deg C)	0.6	01/17/18-11/11/19	O	20	20	0.0	13.9	2.2	6.2	4.8	0.3	
TDS (mg/L)	236	01/17/18-11/11/19	O	21	21	191.0	314.0	253.0	260	28.3	0.6	
TSS (mg/L)	4	01/17/18-11/11/19	O	21	9	< 4	54.0					
Alkalinity (mg/L)	200	01/17/18-11/11/19	O	21	21	150.0	230.0	200.8	210	19.4	0.0	
Calcium (mg/L)	55	04/24/19-11/11/19	O	8	8	38.0	61.0	51.7	54	7.4	0.4	
Chloride (mg/L)	6	01/17/18-11/11/19	O	21	21	3.0	14.0	5.0	5	2.8	0.4	
Fluoride (mg/L)	0.2	01/17/18-11/11/19	O	21	21	0.1	0.2	0.2	0.2	0	0.0	H
Hardness (mg/L)	235	01/17/18-11/11/19	O	21	21	167.0	262.0	229.4	240	24.5	0.2	
Magnesium (mg/L)	24	04/24/19-11/11/19	O	8	8	17.0	27.0	22.5	23	3.1	0.5	
Potassium (mg/L)	1	04/24/19-11/11/19	O	8	7	1.0	2.0	1.1	1	0.3	0.3	L
Sodium (mg/L)	2	04/24/19-11/11/19	O	8	8	2.0	3.0	2.7	3	0.4	1.8	L
Sulfate (mg/L)	30	01/17/18-11/11/19	O	21	21	12.0	44.0	26.6	26	7.7	0.4	
N+N (mg/L)	0.15	01/17/18-11/11/19	O	21	20	< 0	0.2	0.1	0.1	0.1	0.8	
Phosphorus (mg/L)	0.009	04/24/19-11/11/19	O	8	8	0.0	0.0	0.0	0	0	0.0	
Total N Pers (mg/L)	0.25	04/12/18-11/11/19	O	18	18	0.1	0.5	0.2	0.2	0.1	0.2	
Aluminum (DIS) (mg/L)	< 0	04/24/19-11/11/19	O	8	2	< 0	0.0					
Antimony (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0005					
Arsenic (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .001					
Barium (TRC) (mg/L)	0.157	04/24/19-11/11/19	O	8	8	0.1	0.2	0.1	0.2	0	0.0	
Beryllium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0008					
Cadmium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	: .00003					
Chromium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .01					
Cobalt (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .01					
Copper (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .002					
Iron (TRC) (mg/L)	0.21	04/24/19-11/11/19	O	8	8	0.1	0.4	0.2	0.2	0.1	0.1	
Lead (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0003					
Manganese (TRC) (mg/L)	0.019	04/24/19-11/11/19	O	8	8	0.0	0.0	0.0	0	0	0.0	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Mercury (TRC) (ug/L)	< 0	04/24/19-11/11/19	O	8	5	< 0	0.0	0.0	0	0	0.0	L
Molybdenum (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .002					
Nickel (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .001					
Selenium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0002					
Silver (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0002					
Strontium (TRC) (mg/L)	0.146	04/24/19-11/11/19	O	8	8	0.1	0.2	0.1	0.1	0	0.0	
Thallium (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	0	< 0	< .0002					
Uranium (TRC) (mg/L)	0.0007	04/24/19-11/11/19	O	8	8	0.0	0.0	0.0	0	0	0.0	
Zinc (TRC) (mg/L)	< 0	04/24/19-11/11/19	O	8	3	< 0	0.0					

SAMPLE NO BBC-1912-126 LAB NO: z

STATION:SW-18

12/19/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
Flow (Cubic Ft Sec)	0	N/A	OBS	0								

SAMPLE NO BBC-1912-112 LAB NO: H19120486-005

STATION:SP-12

12/19/19

PARAMETER	RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN	
DO (mg/L)	4.4	04/18/18-11/13/19	O	17	17	0.6	10.4	5.2	5.6	2.4	0.3	
Field pH (s.u.)	7.59	04/18/18-11/13/19	O	17	17	6.8	8.1	7.6	7.7	0.3	0.0	
Field SC (umhos/cm)	467	04/18/18-11/13/19	O	17	17	400.0	515.0	441.5	437	25.6	1.0	
Water Temp (Deg C)	5.9	04/18/18-11/13/19	O	17	17	5.1	8.7	6.6	6.5	1	0.7	
TDS (mg/L)	254	04/18/18-11/13/19	O	18	18	230.0	341.0	250.7	247.5	23.4	0.1	
TSS (mg/L)	31	04/18/18-11/13/19	O	18	11	< 10	187.0	23.2	19	46.4	0.2	
Alkalinity (mg/L)	220	04/18/18-11/13/19	O	18	18	180.0	220.0	201.9	210	11.5	1.6	H
Calcium (mg/L)	55	04/23/19-11/13/19	O	8	8	47.0	58.0	53.3	53.5	3.5	0.5	
Chloride (mg/L)	10	04/18/18-11/13/19	O	18	18	5.0	36.0	8.7	8	6.6	0.2	
Fluoride (mg/L)	0.2	04/18/18-11/13/19	O	18	18	0.2	0.2	0.2	0.2	0	0.0	H
Hardness (mg/L)	246	04/18/18-11/13/19	O	18	18	200.0	258.0	233.6	238	14	0.9	
Magnesium (mg/L)	26	04/23/19-11/13/19	O	8	8	20.0	26.0	23.2	23.5	1.9	1.5	H
Potassium (mg/L)	1	04/23/19-11/13/19	O	8	8	1.0	5.0	1.3	1	1.3	0.3	L
Sodium (mg/L)	2	04/23/19-11/13/19	O	8	8	2.0	4.0	2.2	2	0.7	0.3	L
Sulfate (mg/L)	23	04/18/18-11/13/19	O	18	18	13.0	30.0	22.4	22.5	4	0.2	
N+N (mg/L)	0.2	04/18/18-11/13/19	O	18	18	0.1	0.7	0.3	0.3	0.2	0.5	
Aluminum (DIS) (mg/L)	0.009	04/23/19-11/13/19	O	8	1	< 0	0.0					
Antimony (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	0	< 0	< .0005					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Arsenic (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	1	< 0	0.0					
Barium (DIS) (mg/L)	0.188	04/23/19-11/13/19	O	8	8	0.2	0.2	0.2	0.2	0	0.0	
Beryllium (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	0	< 0	< .0008					
Cadmium (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	0	< 0	: .00003					
Chromium (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	0	< 0	< .01					
Cobalt (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	0	< 0	< .01					
Copper (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	0	< 0	< .002					
Iron (DIS) (mg/L)	0.1	04/23/19-11/13/19	O	8	6	0.0	0.8	0.1	0	0.3	0.1	
Lead (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	1	< 0	0.0					
Manganese (DIS) (mg/L)	0.01	04/23/19-11/13/19	O	8	3	< 0	0.1					
Mercury (DIS) (ug/L)	< 0	04/23/19-11/13/19	O	8	2	< 0	0.0					
Molybdenum (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	0	< 0	< .002					
Nickel (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	1	< 0	0.0					
Selenium (DIS) (mg/L)	0.0004	04/23/19-11/13/19	O	8	2	< 0	< .0002					
Silver (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	0	< 0	< .0002					
Strontium (DIS) (mg/L)	0.115	04/23/19-11/13/19	O	8	8	0.1	0.1	0.1	0.1	0	0.0	
Thallium (DIS) (mg/L)	< 0	04/23/19-11/13/19	O	8	0	< 0	< .0002					
Uranium (DIS) (mg/L)	0.0007	04/23/19-11/13/19	O	8	8	0.0	0.0	0.0	0	0	0.0	H
Zinc (DIS) (mg/L)	0.003	04/23/19-11/13/19	O	8	1	< 0	0.0					

SAMPLE NO BBC-1912-102 LAB NO: z

STATION:DS-10

PARAMETER	12/19/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	9.15	N/A	OBS	0							
Field pH (s.u.)	7.87	N/A	OBS	0							
Field SC (umhos/cm)	379	N/A	OBS	0							
Flow (Gallons Per Min)	1.06	N/A	OBS	0							
Water Temp (Deg C)	5.7	N/A	OBS	0							

SAMPLE NO BBC-1912-100 LAB NO: z

STATION:DS-11

PARAMETER	12/19/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	9.6	N/A	OBS	0							
Field pH (s.u.)	7.72	N/A	OBS	0							
Field SC (umhos/cm)	439	N/A	OBS	0							
Flow (Gallons Per Min)	0.93	N/A	OBS	0							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

Water Temp (Deg C)	3	N/A	OBS	0								

SAMPLE NO BBC-1912-107 LAB NO: z STATION:DS-7

PARAMETER	12/19/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	9.2	N/A	OBS	0							
Field pH (s.u.)	7.75	N/A	OBS	0							
Field SC (umhos/cm)	233.2	N/A	OBS	0							
Flow (Gallons Per Min)	5.2	N/A	OBS	0							
Water Temp (Deg C)	8.3	N/A	OBS	0							

SAMPLE NO BBC-1912-104 LAB NO: z STATION:DS-8

PARAMETER	12/19/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	10.21	N/A	OBS	0							
Field pH (s.u.)	7.88	N/A	OBS	0							
Field SC (umhos/cm)	467	N/A	OBS	0							
Flow (Gallons Per Min)	1.86	N/A	OBS	0							
Water Temp (Deg C)	2.9	N/A	OBS	0							

SAMPLE NO BBC-1912-103 LAB NO: z STATION:DS-9

PARAMETER	12/19/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	10.4	N/A	OBS	0							
Field pH (s.u.)	7.92	N/A	OBS	0							
Field SC (umhos/cm)	385	N/A	OBS	0							
Flow (Gallons Per Min)	2.18	N/A	OBS	0							
Water Temp (Deg C)	1.7	N/A	OBS	0							

SAMPLE NO BBC-1912-101 LAB NO: z STATION:SW-19

PARAMETER	12/19/19 RESULT	COMPARISON PERIOD OF DATA	QC Code	N	# OF DET	MIN	MAX	MEAN	MEDIAN	SD	# OF SD'S FROM MEAN
DO (mg/L)	11.08	N/A	OBS	0							
Field pH (s.u.)	8.35	N/A	OBS	0							
Field SC (umhos/cm)	408	N/A	OBS	0							
Flow (Cubic Ft Sec)	0	N/A	OBS	0							
Water Temp (Deg C)	1.1	N/A	OBS	0							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC). N: Number of samples in comparison data set; # OF DET: Number of samples in data set above detection limit; SD: is Standard Deviation. *: Value Equals or Exceeds 3 SD. H: Latest result is highest in data set; L: Latest result is lowest in data set. 50% of data set must be above lab detection limit before mean, median and SD are calculated.

All QC data were included in statistics. Flagged data were included in statistics. The detection limit was used in calculations.

APPENDIX 2

DATABASE

Analyses Summary Report

Site Name: Black Butte Mine 1/27/2020 10:48:46 AM

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DS-1	DS-10	DS-11	DS-2
Water	Sample Date	12/20/2019	12/20/2019	12/19/2019	12/19/2019	12/19/2019	12/19/2019
	Sample Time	1:00:00 AM	2:00:00 AM	1:00:00 PM	11:15:00 AM	10:30:00 AM	12:00:00 PM
	Lab	Energy Labs	Energy Labs	Hydro	Hydro	Hydro	Hydro
	Lab Number	H19120486-006	H19120487-007	z	z	z	z
	Sample Number	BBC-1912-121	BBC-1912-120	BBC-1912-122	BBC-1912-102	BBC-1912-100	BBC-1912-105
	Remarks						

Field Parameters	Multiple Units					
Dissolved Oxygen				9.15	9.6	6.82
Field pH				7.87	7.72	7.89
Field Specific Conductivity				379	439	367
Flow						
Flow			NF-ICE	1.06	0.93	0.32
Water Temperature				5.7	3	1.7
Physical Parameters	mg/L					
Total Dissolved Solids	<10	<10				
Total Suspended Solids	<10	<4				
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	<4	<4				
Calcium (DIS)	<1	<1				
Chloride	<1	<1				
Fluoride	<0.1	<0.1				
Hardness as CaCO3	<1	<1				
Magnesium (DIS)	<1	<1				
Potassium (DIS)	<1	<1				
Sodium (DIS)	<1	<1				
Sulfate	<1	<1				
Nutrients	mg/L					
Nitrate + Nitrite as N	<0.01	<0.01				
Phosphorus (TOT)		<0.003				
Total Nitrogen as N (Persulfate)		<0.04				
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009	<0.009				
Antimony (DIS)	<0.0005					
Antimony (TRC)		<0.0005				
Arsenic (DIS)	<0.001					
Arsenic (TRC)		<0.001				
Barium (DIS)	<0.003					
Barium (TRC)		<0.003				
Beryllium (DIS)	<0.0008					

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DI-Blank	DI-Blank	DS-1	DS-10	DS-11	DS-2
Water	Sample Date	12/20/2019	12/20/2019	12/19/2019	12/19/2019	12/19/2019	12/19/2019
	Sample Time	1:00:00 AM	2:00:00 AM	1:00:00 PM	11:15:00 AM	10:30:00 AM	12:00:00 PM
	Lab	Energy Labs	Energy Labs	Hydro	Hydro	Hydro	Hydro
	Lab Number	H19120486-006	H19120487-007	z	z	z	z
	Sample Number	BBC-1912-121	BBC-1912-120	BBC-1912-122	BBC-1912-102	BBC-1912-100	BBC-1912-105
	Remarks						

Metals - Trace Constituents	Multiple Units	
Beryllium (TRC)		<0.0008
Cadmium (DIS)	<0.00003	
Cadmium (TRC)		<0.00003
Chromium (DIS)	<0.01	
Chromium (TRC)		<0.01
Cobalt (DIS)	<0.01	
Cobalt (TRC)		<0.01
Copper (DIS)	<0.002	
Copper (TRC)		<0.002
Iron (DIS)	<0.02	
Iron (TRC)		<0.02
Lead (DIS)	<0.0003	
Lead (TRC)		<0.0003
Manganese (DIS)	<0.005	
Manganese (TRC)		<0.005
Mercury (DIS)	<0.005	
Mercury (TRC)		<0.005
Molybdenum (DIS)	<0.002	
Molybdenum (TRC)		<0.002
Nickel (DIS)	<0.001	
Nickel (TRC)		<0.001
Selenium (DIS)	<0.0002	
Selenium (TRC)		<0.0002
Silver (DIS)	<0.0002	
Silver (TRC)		<0.0002
Strontium (DIS)	<0.0002	
Strontium (TRC)		<0.0002
Thallium (DIS)	<0.0002	
Thallium (TRC)		<0.0002
Uranium (DIS)	<0.0002	
Uranium (TRC)		<0.0002
Zinc (DIS)	<0.002	
Zinc (TRC)		<0.002

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DS-3	DS-4	DS-7	DS-8	DS-9	SP-10
Water	Sample Date	12/19/2019	12/19/2019	12/19/2019	12/19/2019	12/19/2019	12/19/2019
	Sample Time	1:45:00 PM	1:55:00 PM	2:30:00 PM	11:40:00 AM	11:30:00 AM	12:55:00 PM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1912-127	BBC-1912-128	BBC-1912-107	BBC-1912-104	BBC-1912-103	BBC-1912-106
	Remarks						

Field Parameters	Multiple Units						
Dissolved Oxygen				9.2	10.21	10.4	
Field pH				7.75	7.88	7.92	
Field Specific Conductivity				233.2	467	385	
Flow							
Flow		NF-DRY	NF-DRY	5.2	1.86	2.18	NF
Water Temperature				8.3	2.9	1.7	
Physical Parameters	mg/L						
Total Dissolved Solids							
Total Suspended Solids							
Major Constituents - Commons Ions	mg/L						
Alkalinity as CaCO3							
Calcium (DIS)							
Chloride							
Fluoride							
Hardness as CaCO3							
Magnesium (DIS)							
Potassium (DIS)							
Sodium (DIS)							
Sulfate							
Nutrients	mg/L						
Nitrate + Nitrite as N							
Phosphorus (TOT)							
Total Nitrogen as N (Persulfate)							
Metals - Trace Constituents	Multiple Units						
Aluminum (DIS)							
Antimony (DIS)							
Antimony (TRC)							
Arsenic (DIS)							
Arsenic (TRC)							
Barium (DIS)							
Barium (TRC)							
Beryllium (DIS)							

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	DS-3	DS-4	DS-7	DS-8	DS-9	SP-10
Water	Sample Date	12/19/2019	12/19/2019	12/19/2019	12/19/2019	12/19/2019	12/19/2019
	Sample Time	1:45:00 PM	1:55:00 PM	2:30:00 PM	11:40:00 AM	11:30:00 AM	12:55:00 PM
	Lab	Hydro	Hydro	Hydro	Hydro	Hydro	Hydro
	Lab Number	z	z	z	z	z	z
	Sample Number	BBC-1912-127	BBC-1912-128	BBC-1912-107	BBC-1912-104	BBC-1912-103	BBC-1912-106
	Remarks						
Metals - Trace Constituents	Multiple Units						
	Beryllium (TRC)						
	Cadmium (DIS)						
	Cadmium (TRC)						
	Chromium (DIS)						
	Chromium (TRC)						
	Cobalt (DIS)						
	Cobalt (TRC)						
	Copper (DIS)						
	Copper (TRC)						
	Iron (DIS)						
	Iron (TRC)						
	Lead (DIS)						
	Lead (TRC)						
	Manganese (DIS)						
	Manganese (TRC)						
	Mercury (DIS)						
	Mercury (TRC)						
	Molybdenum (DIS)						
	Molybdenum (TRC)						
	Nickel (DIS)						
	Nickel (TRC)						
	Selenium (DIS)						
	Selenium (TRC)						
	Silver (DIS)						
	Silver (TRC)						
	Strontium (DIS)						
	Strontium (TRC)						
	Thallium (DIS)						
	Thallium (TRC)						
	Uranium (DIS)						
	Uranium (TRC)						
	Zinc (DIS)						
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 1/27/2020 10:48:46 AM

Sample Type:	Station (Site)	SP-11	SP-12	SP-3	SP-4	SP-6	SP-7
Water	Sample Date	12/20/2019	12/19/2019	12/19/2019	12/19/2019	12/19/2019	12/19/2019
	Sample Time	9:15:00 AM	4:00:00 PM	2:05:00 PM	3:00:00 PM	2:45:00 PM	3:20:00 PM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Energy Labs	Energy Labs
	Lab Number	z	H19120486-005	z	H19120486-002	H19120486-001	H19120486-003
	Sample Number	BBC-1912-116	BBC-1912-112	BBC-1912-129	BBC-1912-109	BBC-1912-108	BBC-1912-110
	Remarks						

Field Parameters Multiple Units						
Dissolved Oxygen		4.4		9.89	9.57	2.87
Field pH		7.59		7.78	7.9	7.29
Field Specific Conductivity		467		430	285	340
Flow						
Flow	NM	NM	NF-DRY	5.4	0.83	22.4
Water Temperature		5.9		5.8	6.8	6.7
Physical Parameters mg/L						
Total Dissolved Solids		254		229	165	184
Total Suspended Solids		31		<10	<10	<10
Major Constituents - Commons Ions mg/L						
Alkalinity as CaCO3		220		200	140	170
Calcium (DIS)		55		48	34	42
Chloride		10		<1	1	2
Fluoride		0.2		0.2	0.2	0.3
Hardness as CaCO3		246		233	144	169
Magnesium (DIS)		26		27	14	16
Potassium (DIS)		1		2	<1	3
Sodium (DIS)		2		2	2	5
Sulfate		23		34	11	11
Nutrients mg/L						
Nitrate + Nitrite as N		0.2		0.28	0.4	0.34
Phosphorus (TOT)						
Total Nitrogen as N (Persulfate)						
Metals - Trace Constituents Multiple Units						
Aluminum (DIS)		0.009		<0.009	<0.009	<0.009
Antimony (DIS)		<0.0005		<0.0005	<0.0005	<0.0005
Antimony (TRC)						
Arsenic (DIS)		<0.001		<0.001	<0.001	0.004
Arsenic (TRC)						
Barium (DIS)		0.188		0.113	0.202	0.114
Barium (TRC)						
Beryllium (DIS)		<0.0008		<0.0008	<0.0008	<0.0008

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-11	SP-12	SP-3	SP-4	SP-6	SP-7
Water	Sample Date	12/20/2019	12/19/2019	12/19/2019	12/19/2019	12/19/2019	12/19/2019
	Sample Time	9:15:00 AM	4:00:00 PM	2:05:00 PM	3:00:00 PM	2:45:00 PM	3:20:00 PM
	Lab	Hydro	Energy Labs	Hydro	Energy Labs	Energy Labs	Energy Labs
	Lab Number	z	H19120486-005	z	H19120486-002	H19120486-001	H19120486-003
	Sample Number	BBC-1912-116	BBC-1912-112	BBC-1912-129	BBC-1912-109	BBC-1912-108	BBC-1912-110
	Remarks						
	Metals - Trace Constituents	Multiple Units					
	Beryllium (TRC)						
	Cadmium (DIS)	<0.00003		<0.00003	<0.00003	<0.00003	
	Cadmium (TRC)						
	Chromium (DIS)	<0.01		<0.01	<0.01	<0.01	
	Chromium (TRC)						
	Cobalt (DIS)	<0.01		<0.01	<0.01	<0.01	
	Cobalt (TRC)						
	Copper (DIS)	<0.002		<0.002	<0.002	<0.002	
	Copper (TRC)						
	Iron (DIS)	0.1		<0.02	<0.02	<0.02	
	Iron (TRC)						
	Lead (DIS)	<0.0003		<0.0003	<0.0003	<0.0003	
	Lead (TRC)						
	Manganese (DIS)	0.01		<0.005	<0.005	<0.005	
	Manganese (TRC)						
	Mercury (DIS)	<0.005		<0.005	<0.005	<0.005	
	Mercury (TRC)						
	Molybdenum (DIS)	<0.002		<0.002	<0.002	<0.002	
	Molybdenum (TRC)						
	Nickel (DIS)	<0.001		<0.001	<0.001	<0.001	
	Nickel (TRC)						
	Selenium (DIS)	0.0004		0.0005	<0.0002	0.0003	
	Selenium (TRC)						
	Silver (DIS)	<0.0002		<0.0002	<0.0002	<0.0002	
	Silver (TRC)						
	Strontium (DIS)	0.115		0.072	0.0769	0.165	
	Strontium (TRC)						
	Thallium (DIS)	<0.0002		0.0003	0.0005	0.001	
	Thallium (TRC)						
	Uranium (DIS)	0.0007		0.0005	0.0004	0.0009	
	Uranium (TRC)						
	Zinc (DIS)	0.003		<0.002	<0.002	<0.002	
	Zinc (TRC)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Sample Type:	Station (Site)	SP-7	SW-1	SW-1	SW-14	SW-17	SW-18
Water	Sample Date	12/19/2019	12/20/2019	12/20/2019	12/20/2019	12/19/2019	12/19/2019
	Sample Time	3:40:00 PM	8:45:00 AM	9:10:00 AM	9:20:00 AM	4:30:00 PM	1:25:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro
	Lab Number	H19120486-004	H19120487-002	H19120487-003	H19120487-004	H19120487-001	z
	Sample Number	BBC-1912-111	BBC-1912-114	BBC-1912-115	BBC-1912-117	BBC-1912-113	BBC-1912-126
	Remarks	DUPLICATE		DUPLICATE			

Field Parameters	Multiple Units					
Dissolved Oxygen		11.59		9.28	10.8	
Field pH		8.29		7.94	8.19	
Field Specific Conductivity		334		428	434	
Flow		NF-ICE		0.39	NM	NF-DRY
Flow						
Water Temperature		0.2		2.3	0.6	
Physical Parameters	mg/L					
Total Dissolved Solids	182	179 D	182 D	233 D	236 D	
Total Suspended Solids	<10	<4	<4	<4	4	
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3	170	170	170	220	200	
Calcium (DIS)	42	49	48	59	55	
Chloride	2	2	2	2	6	
Fluoride	0.3	<0.1	<0.1	0.2	0.2	
Hardness as CaCO3	168	172	170	227	235	
Magnesium (DIS)	15	12	12	19	24	
Potassium (DIS)	3	1	1	1	1	
Sodium (DIS)	5	2	2	3	2	
Sulfate	11	8	7	10	30	
Nutrients	mg/L					
Nitrate + Nitrite as N	0.34	0.13	0.11	0.13	0.15	
Phosphorus (TOT)		0.008	0.008	<0.003	0.009	
Total Nitrogen as N (Persulfate)		0.21	0.18	0.23	0.25	
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)	<0.009	<0.009	<0.009	<0.009	<0.009	
Antimony (DIS)	<0.0005					
Antimony (TRC)		<0.0005	<0.0005	<0.0005	<0.0005	
Arsenic (DIS)	0.004					
Arsenic (TRC)		<0.001	<0.001	<0.001	<0.001	
Barium (DIS)	0.115					
Barium (TRC)		0.107	0.11	0.124	0.157	
Beryllium (DIS)	<0.0008					

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Sample Type:	Station (Site)	SP-7	SW-1	SW-1	SW-14	SW-17	SW-18
Water	Sample Date	12/19/2019	12/20/2019	12/20/2019	12/20/2019	12/19/2019	12/19/2019
	Sample Time	3:40:00 PM	8:45:00 AM	9:10:00 AM	9:20:00 AM	4:30:00 PM	1:25:00 PM
	Lab	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Energy Labs	Hydro
	Lab Number	H19120486-004	H19120487-002	H19120487-003	H19120487-004	H19120487-001	z
	Sample Number	BBC-1912-111	BBC-1912-114	BBC-1912-115	BBC-1912-117	BBC-1912-113	BBC-1912-126
	Remarks	DUPLICATE		DUPLICATE			
Metals - Trace Constituents	Multiple Units						
Beryllium (TRC)			<0.0008	<0.0008	<0.0008	<0.0008	
Cadmium (DIS)		<0.00003					
Cadmium (TRC)			<0.00003	<0.00003	<0.00003	<0.00003	
Chromium (DIS)		<0.01					
Chromium (TRC)			<0.01	<0.01	<0.01	<0.01	
Cobalt (DIS)		<0.01					
Cobalt (TRC)			<0.01	<0.01	<0.01	<0.01	
Copper (DIS)		<0.002					
Copper (TRC)			<0.002	<0.002	<0.002	<0.002	
Iron (DIS)		<0.02					
Iron (TRC)			0.18	0.16	0.03	0.21	
Lead (DIS)		<0.0003					
Lead (TRC)			<0.0003	<0.0003	<0.0003	<0.0003	
Manganese (DIS)		<0.005					
Manganese (TRC)			0.015	0.016	<0.005	0.019	
Mercury (DIS)		<0.005					
Mercury (TRC)			<0.005	<0.005	<0.005	<0.005	
Molybdenum (DIS)		<0.002					
Molybdenum (TRC)			<0.002	<0.002	<0.002	<0.002	
Nickel (DIS)		<0.001					
Nickel (TRC)			<0.001	<0.001	<0.001	<0.001	
Selenium (DIS)		0.0003					
Selenium (TRC)			<0.0002	<0.0002	<0.0002	<0.0002	
Silver (DIS)		<0.0002					
Silver (TRC)			<0.0002	<0.0002	<0.0002	<0.0002	
Strontium (DIS)		0.166					
Strontium (TRC)			0.127	0.128	0.133	0.146	
Thallium (DIS)		0.001					
Thallium (TRC)			<0.0002	<0.0002	<0.0002	<0.0002	
Uranium (DIS)		0.0009					
Uranium (TRC)			0.0004	0.0004	0.0005	0.0007	
Zinc (DIS)		<0.002					
Zinc (TRC)			<0.002	<0.002	<0.002	<0.002	

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.

Analyses Summary Report

Site Name: Black Butte Mine 1/27/2020 10:48:47 AM

Sample Type:	Station (Site)	SW-19	SW-2	SW-3	SW-4	SW-7	USGS-SC1
Water	Sample Date	12/19/2019	12/20/2019	12/19/2019	12/19/2019	12/19/2019	12/20/2019
	Sample Time	10:50:00 AM	9:35:00 AM	1:35:00 PM	1:20:00 PM	1:10:00 PM	9:50:00 AM
	Lab	Hydro	Energy Labs	Hydro	Hydro	Hydro	Energy Labs
	Lab Number	z	H19120487-005	z	z	z	H19120487-006
	Sample Number	BBC-1912-101	BBC-1912-118	BBC-1912-125	BBC-1912-124	BBC-1912-123	BBC-1912-119
	Remarks						

Field Parameters	Multiple Units					
Dissolved Oxygen	11.08	11.14				11.26
Field pH	8.35	8.21				8.29
Field Specific Conductivity	408	327				362
Flow	NF-ICE	NF-ICE	NF-ICE	NF-DRY		NF-ICE
Flow					NF-DRY	
Water Temperature	1.1	0.15				0.37
Physical Parameters	mg/L					
Total Dissolved Solids		180 D				201 D
Total Suspended Solids		23				<4
Major Constituents - Commons Ions	mg/L					
Alkalinity as CaCO3		170				190
Calcium (DIS)		48				55
Chloride		1				2
Fluoride		<0.1				<0.1
Hardness as CaCO3		170				191
Magnesium (DIS)		12				13
Potassium (DIS)		1				1
Sodium (DIS)		2				2
Sulfate		7				8
Nutrients	mg/L					
Nitrate + Nitrite as N		0.1				0.09
Phosphorus (TOT)		0.016				<0.003
Total Nitrogen as N (Persulfate)		0.19				0.13
Metals - Trace Constituents	Multiple Units					
Aluminum (DIS)		<0.009				<0.009
Antimony (DIS)						
Antimony (TRC)		<0.0005				<0.0005
Arsenic (DIS)						
Arsenic (TRC)		<0.001				<0.001
Barium (DIS)						
Barium (TRC)		0.096				0.067
Beryllium (DIS)						

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

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Sample Type:	Station (Site)	SW-19	SW-2	SW-3	SW-4	SW-7	USGS-SC1
Water	Sample Date	12/19/2019	12/20/2019	12/19/2019	12/19/2019	12/19/2019	12/20/2019
	Sample Time	10:50:00 AM	9:35:00 AM	1:35:00 PM	1:20:00 PM	1:10:00 PM	9:50:00 AM
	Lab	Hydro	Energy Labs	Hydro	Hydro	Hydro	Energy Labs
	Lab Number	z	H19120487-005	z	z	z	H19120487-006
	Sample Number	BBC-1912-101	BBC-1912-118	BBC-1912-125	BBC-1912-124	BBC-1912-123	BBC-1912-119
	Remarks						

Metals - Trace Constituents Multiple Units		
Beryllium (TRC)	<0.0008	<0.0008
Cadmium (DIS)		
Cadmium (TRC)	<0.00003	<0.00003
Chromium (DIS)		
Chromium (TRC)	<0.01	<0.01
Cobalt (DIS)		
Cobalt (TRC)	<0.01	<0.01
Copper (DIS)		
Copper (TRC)	<0.002	<0.002
Iron (DIS)		
Iron (TRC)	0.24	0.11
Lead (DIS)		
Lead (TRC)	<0.0003	<0.0003
Manganese (DIS)		
Manganese (TRC)	0.012	0.006
Mercury (DIS)		
Mercury (TRC)	<0.005	<0.005
Molybdenum (DIS)		
Molybdenum (TRC)	<0.002	<0.002
Nickel (DIS)		
Nickel (TRC)	<0.001	<0.001
Selenium (DIS)		
Selenium (TRC)	<0.0002	<0.0002
Silver (DIS)		
Silver (TRC)	<0.0002	<0.0002
Strontium (DIS)		
Strontium (TRC)	0.129	0.142
Thallium (DIS)		
Thallium (TRC)	<0.0002	<0.0002
Uranium (DIS)		
Uranium (TRC)	0.0003	0.0004
Zinc (DIS)		
Zinc (TRC)	<0.002	<0.002

NOTES: All quantities in mg/L (Water) or mg/kg (Soil) unless noted. All results laboratory unless field (FLD) or calculated (CALC).

DATA VALIDATION FLAGS--- **J:** The associated numerical value is an estimated quantity because duplicate quality control criteria were not met. **S:** The associated numerical value is an estimated quantity because split quality control criteria were not met. **U:** Blank contamination; Indicates possible high bias and / or false positive. The associated value is an estimate. **R:** Quality control indicates that the data are unusable (compound may or may not be present). Resampling and/or reanalysis are necessary for verification. **A:** Anomalous data. No apparent explanation for discrepancy in data. **D:** Reporting Limit increased due to sample matrix. **L:** Lowest available reporting limit for the analytical method used. **H:** Analysis performed past recommended holding time. **Z:** No validation Flag.