

# **Appendix F.1**

**2021 Groundwater Monitoring Report -  
Part 2 of 2**

# **Attachment 1**

**Borehole Logs - Part 2 of 2**

# RECORD OF BOREHOLE



**DRILL HOLE ID: MW20C  
BR-21-270**

**TOTAL DEPTH: 251.60 m  
N: 5006849.88 E: 293160.07  
ELEVATION: 53.30 m GEODETIC  
WATER LEVEL: 0.3 m**

**DATE STARTED: JUN 09, 2021  
DATE COMPLETED: JUN 14, 2021  
INCLINATION: -90°  
AZIMUTH: 000° COORD. SYS.: NAD83 MTM Zone 4**

**PROJECT NO.: 20-113-H  
CLIENT: ANACONDA MINING**

**PROJECT NAME: GOLDBORO PROJECT - SITEWIDE GEOTECHNICAL FIELD INVESTIGATION**

DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY										RMR 1976	WELL CONSTRUCTION DETAILS	OTHER TESTS				
						SH-SHEAR		CONT-CONTACT		RZ-BROKEN CORE /		RO-ROUGH		INFILL					q-cr-Quartz-Calcite		epi-Epidote	
						JS-JOINT	CL-CLEAVAGE	BD-BEDDING	FT-FAULT	RUBBLE ZONE	SL-SLICKENSIDED	cal-Calcite	gou-Gouge	hem-Hematite	chl-Chlorite				qz-Quartz	sph-Sulphides	cl-Clay Minerals	fes-Iron Staining
STRUCTURE		R.Q.D. %		FRACT. INDEX		ROCK STRENGTH INDEX		WEATHERING INDEX		DISCONTINUITY DATA		TYPE AND SURFACE DESCRIPTION										
0	53.3	OVERBURDEN																				
4	49.4	Medium to locally light grey, medium grained GREYWACKE. Localized patchy silicification.																				
4.5					HQ <sub>1</sub>	100	51	7:1	5	2	RZ, U, IN: fes		54									
7.5					HQ <sub>2</sub>	97	39	3:0	5	2	JS, U, IN: fes		49									
10.5					HQ <sub>3</sub>	96	85	1:5	5	1	JS, U, IN: cal		61									
13.5					HQ <sub>4</sub>	100	78	2:5	5	1	JS, U, IN: cal		61									
15.5					HQ <sub>5</sub>	100	90	1:3	5	1	JS, U, IN: q-cr-qb		61									



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						SH-SHEAR JS-JOINT CL-CLEAVAGE VN-VEIN		CONT-CONTACT BD-BEDDING FT-FAULT FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE P-PLANAR U-UNDULATING		RO-ROUGH SL-SLICKENSIDED		cIn-Clean cal-Calcite chl-Chlorite cly-Clay Minerals					q-crB-Quartz-Calcite gou-Gouge qtz-Quartz fes-Iron Staining		epi-Epidote hem-Hematite sph-Sulphides bio-Biotite	
						STRUCTURE	TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX	WEATHERING INDEX	DISCONTINUITY DATA		TYPE AND SURFACE DESCRIPTION								
30		Medium to locally light grey, medium grained GREYWACKE. Localized patchy silicification. (continued...)																				
31			HO 10	97	85	2:0	4	1	CL, U, IN: q-crB	56												
32																						
33																						
34				HO 11	100	93	1:0	5	1	CL, P, IN: q-crB	79											
35																						
36																						
37			HO 12	100	100	0:3	5	1	CL, P, IN: cIn	74												
38																						
39																						
40			HO 13	100	100	0:5	5	1	JS, P, IN: cly	74												
41																						
42																						
43			HO 14	100	86	0:5	5	1	BD, P, IN: q-crB	71												
44																						
45			HO 15	97	95	0:5	5	1	CL, U, IN: q-crB	74												

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DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY						DISCONTINUITY DATA		RMR 1976	WELL CONSTRUCTION DETAILS	OTHER TESTS		
						SH-SHEAR JS-JOINT CL-CLEAVAGE VN-VEIN		CONT-CONTACT BD-BEDDING FT-FAULT FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE P-PLANAR U-UNDULATING		RO-ROUGH SL-SLICKENSIDED					INFILL	
						TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX R1 R2 R3 R4	WEATHERING INDEX W1 W2	TYPE AND SURFACE DESCRIPTION		INFILL					
45		Medium to locally light grey, medium grained GREYWACKE. Localized patchy silicification. (continued...)																
46					HQ 15	97	95	0.5	5	1	CL, U, IN: q-crb	74						
47																		
48						HQ 16	100	95	1.3	5	1	CL, U, IN: cly	64					
49																		
50																		
51																		
52					HQ 17	98	95	0.8	5	1	CL, U, IN: cln	74						
53																		
54																		
55					HQ 18	100	100	0.3	5	1	CL, U, IN: q-crb	74						
56																		
57																		
58	-4.1	Light to medium grey, biotite rich ARGILLITE.			HQ 19	100	98	0.5	4	1	FT, P, IN: gou	69						
59	-5.9																	
60					HQ 20	100	100	0.4	5	1	CL, U, IN: cln	74						

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DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY										RMR 1976	WELL CONSTRUCTION DETAILS	OTHER TESTS					
						SH-SHEAR JS-JOINT CL-CLEAVAGE VN-VEIN		CONT-CONTACT BD-BEDDING FT-FAULT FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE P-PLANAR U-UNDULATING		RO-ROUGH SL-SLICKENSIDED		INFILL					q-crb-Quartz-Calcite gou-Gouge qtz-Quartz fes-Iron Staining		epi-Epidote hem-Hematite sph-Sulphides bio-Biotite		
						30	40	60	80	20	40	60	80	5	10				15	R1	R2	R3	R4
TOTAL CORE %		R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX	WEATHERING INDEX	DISCONTINUITY DATA										TYPE AND SURFACE DESCRIPTION							
60		Medium grey, medium grained GREYWACKE with areas of patchy silicification and ARGILLITE interbeds. (continued...)			HO 20	100	100	0.4	5	1	CL, U, IN: cln										74		
61			HO 21	100	96	0.8	5	1	CL, U, IN: q-crb										74				
62			HO 22	100	100	0.4	5	1	CL, U, IN: q-crb										74				
63			HO 23	100	100	0.2	5	1	BD, U, IN: cln										79				
64			HO 24	100	96	0.8	5	1	BD, U, IN: chl										74				
65					HO 25	99	96	0.8	5	1	BD, P, IN: cln										74		
66																							
67																							
68																							
69																							
70																							
71																							
72																							
73																							
74																							
75	-21.4																						

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DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY										RMR 1976	WELL CONSTRUCTION DETAILS	OTHER TESTS				
						SH-SHEAR JS-JOINT CL-CLEAVAGE VN-VEIN		CONT-CONTACT BD-BEDDING FT-FAULT FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE P-PLANAR U-UNDULATING		RO-ROUGH SL-SLICKENSIDED		ZNF-FILL					q-cr-Quartz-Calcite gou-Gouge qz-Quartz fes-Iron Staining		epi-Epidote hem-Hematite sph-Sulphides bio-Biotite	
						STRUCTURE	TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX	WEATHERING INDEX	DISCONTINUITY DATA		TYPE AND SURFACE DESCRIPTION								
75		Medium grey, biotite-rich ARGILLITE. (continued...)																				
76					HO 25		99	96	0.8	5	1	BD, P, IN: cln			74							
77																						
78																						
79					HO 26		100	98	0.5	4	1	BD, P, IN: bio			69							
80																						
81																						
82	-28.8				HO 27		100	97	0.8	4	1	BD, U, IN: cly			69							
83		Light to medium grey, medium grained GREYWACKE with ARGILLITE interbeds up to 70 cm.																				
84																						
85					HO 28		99	95	0.8	5	1	JS, U, IN: cln			74							
86																						
87																						
88					HO 29		100	89	1.5	5	1	BD, U, IN: cln			61							
89																						
90					HO 30		100	98	0.8	5	1	JS, U, IN: cln			74							



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						SH-SHEAR		CONT-CONTACT		RZ-BROKEN CORE /		RO-ROUGH					TYPE AND SURFACE DESCRIPTION	RMR 1976				
						JS-JOINT	CL-CLEAVAGE	BD-BEDDING	FT-FAULT	RUBBLE ZONE	P-PLANAR	SL-SLICKENSIDED	IN-FILL									
30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250
TOTAL CORE %		R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX	WEATHERING INDEX																	
90		Light to medium grey, medium grained GREYWACKE with ARGILLITE interbeds up to 70 cm. (continued...)			HO 30	100	98	0.8	5	1	JS, U, IN: cln	74										
91																						
92																						
93																						
94					HO 31	100	94	1.5	5	1	JS, U, IN: q-crb	64										
95																						
96																						
97					HO 32	98	69	2.0	5	1	BD, U, IN: q-crb	57	Bentonite seal									
98													Sand filter pack									
99	-45.6	Light to medium grey, biotite-rich ARGILLITE.																				
100					HO 33	98	89	1.0	4	1	BD, U, IN: bio	56										
101																						
102																						
103					HO 34	100	81	1.3	4	1	BD, U, IN: bio	56										
104																						
105					HO 35	100	98	0.5	5	1	CL, U, IN: q-crb	74										

Packer Test 4  
96.34 to 99.57 m

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						SH-SHEAR JS-JOINT CL-CLEAVAGE VN-VEIN		CONT-CONTACT BD-BEDDING FT-FAULT FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE P-PLANAR U-UNDULATING		RO-ROUGH SL-SLICKENSIDED		ZNF-LL					q-cr-Quartz-Calcite gou-Gouge qtz-Quartz fes-Iron Staining		epi-Epidote hem-Hematite sph-Sulphides bio-Biotite	
						STRUCTURE	TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX R1 R2 R3 R4	WEATHERING INDEX W1 W2	DISCONTINUITY DATA		TYPE AND SURFACE DESCRIPTION								
105	-52.6	Light to medium grey, biotite-rich ARGILLITE. (continued...)																				
106		Light grey, medium to fine grained GREYWACKE. Minor ARGILLITE interbeds up to 70 cm.			HO 35		100	98	0.5	5	1	CL, U, IN: q-cr	74									
109					HO 36		100	96	0.5	5	1	CL, U, IN: q-cr	74									
112					HO 37		99	85	1.3	5	1	BD, U, IN: cal	71									
115					HO 38		99	97	0.5	4	1	JS, U, IN: q-cr	69									
118					HO 39		98	83	1.0	5	1	JS, U, IN: q-cr	71									
120					HO 40		99	95	1.3	5	1	CL, U, IN: q-cr	74									

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						SH-SHEAR JS-JOINT CL-CLEAVAGE VN-VEIN		CONT-CONTACT BD-BEDDING FT-FAULT FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE P-PLANAR U-UNDULATING		RO-ROUGH SL-SLICKENSIDED		ZNF-LL						q-cr-Quartz-Calcite gou-Gouge qtz-Quartz fes-Iron Staining		epi-Epidote hem-Hematite sph-Sulphides bio-Biotite	
						STRUCTURE	TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX R1 R2 R3 R4	WEATHERING INDEX W1 W2	TYPE AND SURFACE DESCRIPTION											
120		Light grey, medium to fine grained GREYWACKE. Minor ARGILLITE interbeds up to 70 cm. (continued...)																					
121			HQ 40	99	95	1:3	5	1	CL, U, IN: q-cr			74											
122																							
123																							
124			HQ 41	100	93	1:0	5	1	JS, U, IN: q-cr			74											
125																							
126																							
127			HQ 42	100	66	1:8	4	1	FT, U, IN: gou			52											
128																							
129																							
130			HQ 43	99	95	1:0	5	1	JS, U, IN: sph			64											
131																							
132																							
133			HQ 44	100	100	0:5	5	1	JS, U, IN: q-cr			74											
134																							
135			HQ 45	97	90	1:0	5	1	BD, U, IN: q-cr			61											

Packer Test 2  
125.74 to  
128.97 m

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						SH-SHEAR		JS-JOINT		CL-CLEAVAGE		VN-VEIN		CONT-CONTACT					BD-BEDDING		FT-FAULT		FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE		RO-ROUGH		SL-SLICKENSIDED		ZNF-ILL		cIn-Clean cal-Calcite		gou-Gouge		qtz-Quartz		fes-Iron Staining		epi-Epidote		hem-Hematite		sph-Sulphides		bio-Biotite	
						30	40	50	60	70	80	90	100	110	120				130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360	370	380	390	400	410	420
135		Light grey, medium to fine grained GREYWACKE. Minor ARGILLITE interbeds up to 70 cm. (continued...)			HO 45	97	90	1.0	5	1	BD, U, IN: q-crb										61																											
136					HO 46	100	90	1.0	5	1	BD, U, IN: bio										61																											
137		Light grey, biotite-rich ARGILLITE with local crenulated quartz veinlets. Minor GREYWACKE interbeds up to 70 cm.			HO 47	100	85	1.5	5	1	JS, U, IN: bio										61																											
138	-84.7				HO 48	100	98	1.0	5	1	JS, U, IN: bio										74																											
139					HO 49	98	94	0.5	5	1	BD, P, IN: chl										74																											
140		Light grey, medium grained GREYWACKE with minor ARGILLITE interbeds up to 80 cm.			HO 50	99	99	0.3	5	1	BD, P, IN: sph										74																											
141																																																
142																																																
143																																																
144																																																
145																																																
146																																																
147																																																
148	-94.2																																															
149																																																
150																																																

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						30	40	60	80	20	40	60	80	5	10	15	R1			R2	R3	R4	W1	W2	RMR 1976	30	40
150		Light grey, medium grained GREYWACKE with minor ARGILLITE interbeds up to 80 cm. (continued...)																									
151					HO 50	99	99	0.3	5	1	BD, P, IN: sph	74															
152																											
153																											
154						HO 51	100	96	1.0	4	1	BD, U, IN: bio	69														
155																											
156																											
157					HO 52	100	97	0.3	5	1	CL, P, IN: sph	79															
158																											
159																											
160					HO 53	100	96	1.0	4	1	BD, P, IN: sph	69															
161																											
162																											
163					HO 54	100	99	1.3	5	1	BD, P, IN: cln	74															
164																											
165					HO 55	100	100	0.5	5	1	BD, U, IN: cal	74															

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DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY										RMR 1976	WELL CONSTRUCTION DETAILS	OTHER TESTS				
						SH-SHEAR JS-JOINT CL-CLEAVAGE VN-VEIN		CONT-CONTACT BD-BEDDING FT-FAULT FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE P-PLANAR U-UNDULATING		RO-ROUGH SL-SLICKENSIDED		ZNF-LL					q-cr-Quartz-Calcite gou-Gouge qtz-Quartz fes-Iron Staining		epi-Epidote hem-Hematite sph-Sulphides bio-Biotite	
						STRUCTURE	TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX R1 R2 R3 R4	WEATHERING INDEX W1 W2	DISCONTINUITY DATA		TYPE AND SURFACE DESCRIPTION								
165		Light grey, medium grained GREYWACKE with minor ARGILLITE interbeds up to 80 cm. (continued...)																				
166			HO 55	100	100	0.5	5	1	BD, U, IN: cal		74											
167																						
168																						
169				HO 56	98	98	0.3	5	1	BD, P, IN: q-cr-b		79										
170																						
171																						
172			HO 57	100	93	0.5	5	1	CL, U, IN: q-cr-b		74											
173																						
174																						
175			HO 58	100	95	0.8	5	1	CL, U, IN: q-cr-b		74											
176																						
177																						
178			HO 59	100	97	0.8	5	1	CL, P, IN: q-cr-b		74											
179																						
180			HO 60	97	91	1.0	5	1	BD, U, IN: q-cr-b		64											



# RECORD OF BOREHOLE



**DRILL HOLE ID: MW20C  
BR-21-270**

**TOTAL DEPTH: 251.60 m  
N: 5006849.88 E: 293160.07  
ELEVATION: 53.30 m GEODETIC  
WATER LEVEL: 0.3 m**

**DATE STARTED: JUN 09, 2021  
DATE COMPLETED: JUN 14, 2021  
INCLINATION: -90°  
AZIMUTH: 000° COORD. SYS.: NAD83 MTM Zone 4**

**PROJECT NO.: 20-113-H  
CLIENT: ANACONDA MINING**

**PROJECT NAME: GOLDBORO PROJECT - SITEWIDE GEOTECHNICAL FIELD INVESTIGATION**

DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY										RMR 1976	WELL CONSTRUCTION DETAILS	OTHER TESTS				
						SH-SHEAR		CONT-CONTACT		RZ-BROKEN CORE /		RO-ROUGH		INFILL					q-cr-Quartz-Calcite		epi-Epidote	
						JS-JOINT	CL-CLEAVAGE	BD-BEDDING	FT-FAULT	RUBBLE ZONE	SL-SLICKENSIDED	cal-Calcite	gou-Gouge	hem-Hematite	chl-Chlorite				qz-Quartz	hem-Hematite	sph-Sulphides	bio-Biotite
VN-VEIN		FO-FOLIATION		U-UNDULATING						cl-Clay Minerals		fes-Iron Staining										
STRUCTURE		TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX	WEATHERING INDEX	DISCONTINUITY DATA															
							TYPE AND SURFACE DESCRIPTION															
195		Light to medium grey, medium grained GREYWACKE. Fracture filling carbonate and quartz near end of unit. (continued...)			HQ 65	96	90	0.8	5	1	JS, U, IN: q-cr-b					71						
196					HQ 66	100	87	1.0	5	1	JS, P, IN: q-cr-b					71						
197		Medium grey weakly bedded ARGILLITE.																				
198																						
199	-146.1																					
200																						
201		Light to medium grey, medium grained GREYWACKE with ARGILLITE interbeds up to 80 cm.			HQ 67	100	47	3.0	4	1	FT, P, IN: RZ					41						
202	-148.8																					
203																						
204																						
205					HQ 68	100	95	0.8	5	1	BD, U, IN: q-cr-b					74						
206																						
207																						
208					HQ 69	100	97	0.8	5	1	CL, U, IN: q-cr-b					74						
209																						
210					HQ 70	100	97	0.5	5	1	CL, P, IN: sph					74						

Packer Test 3  
201.84 to  
204.57 m







# RECORD OF BOREHOLE



**DRILL HOLE ID: MW20C  
BR-21-270**

**TOTAL DEPTH: 251.60 m  
N: 5006849.88 E: 293160.07  
ELEVATION: 53.30 m GEODETIC  
WATER LEVEL: 0.3 m**

**DATE STARTED: JUN 09, 2021  
DATE COMPLETED: JUN 14, 2021  
INCLINATION: -90°  
AZIMUTH: 000° COORD. SYS.: NAD83 MTM Zone 4**

**PROJECT NO.: 20-113-H  
CLIENT: ANACONDA MINING**

**PROJECT NAME: GOLDBORO PROJECT - SITEWIDE GEOTECHNICAL FIELD INVESTIGATION**

DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY										RMR 1976	WELL CONSTRUCTION DETAILS	OTHER TESTS						
						SH-SHEAR JS-JOINT CL-CLEAVAGE VN-VEIN		CONT-CONTACT BD-BEDDING FT-FAULT FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE P-PLANAR U-UNDULATING		RO-ROUGH SL-SLICKENSIDED		INFILL					q-crb-Quartz-Calcite gou-Gouge qtz-Quartz fes-Iron Staining		epi-Epidote hem-Hematite sph-Sulphides bio-Biotite			
						30	40	60	80	20	30	40	50	60	80				5	10	15	R1	R2	R3
TOTAL CORE %		R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX	WEATHERING INDEX	DISCONTINUITY DATA		TYPE AND SURFACE DESCRIPTION																
240		Light to medium grey, medium grained GREYWACKE. Weak carbonate fracture fill throughout. ARGILLITE interbeds up to 80 cm. Pyrrhotite veinlets near 239 m. (continued...)			HQ 80	100	98	0.8	5	1	BD, U, IN: sph				74									
-188.6																								
242		Medium grey, weakly foliated ARGILLITE, with minor GREYWACKE interbeds up to 80 cm.			HQ 81	99	95	1.0	5	1	BD, P, IN: cal				64									
-192.4																								
246		Medium grey, medium grained GREYWACKE with carbonate filled fractures at top of unit.			HQ 82	100	99	0.5	5	1	JS, P, IN: q-crb				74									
-192.4																								
249					HQ 83	100	96	1.3	5	1	JS, U, IN: sph				64									
-198.3																								
252		END BOREHOLE @ 251.6 m																						
255																								

CLIENT ANACONDA MINING INC.  
PROJECT GOLDBORO SITEWIDE GEOTECHNICAL INVESTIGATION  
LOCATION GOLDBORO, NS N 293419.564 m E 5006353.909 m  
DATES (yyyy-mm-dd): BORING 2021-11-26 to 2021-11-27 WATER LEVEL 0.12m 2021-12-3

DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES					UNDRAINED SHEAR STRENGTH - kPa					WELL CONSTRUCTION DETAILS		
					TYPE	NUMBER	RECOVERY(mm) OR TCR %	N-VALUE OR RQD %	OTHER TESTS	10	20	30	40	50		60	70
0	58.79	OVERBURDEN NOTE: BOREHOLE DRILLED ON SAME PAD AS MW21B. REFER TO MW21B LOG FOR DETAILED SOIL AND ROCK INFORMATION															WELL CAP - SU = 0.5 m 50mm PVC CASING, BENTONITE CHIPS SAND
1																	
2																	
3																	
4	54.40																
5		Dark grey, fine to medium grained, massive to poorly developed foliation, GREYWACKE with minor beds of ARGILLITE															BENTONITE SEAL
6																	SAND
7																	WELL SCREEN
8																	
9	49.62	End of Borehole at 9.2 m															
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	

- △ Unconfined Compression Test
- Field Vane Test      ■ (Remolded)
- ◇ Fall Cone Test      ◆ (Remolded)
- ▽ Hand Penetrometer Test      ▣ Torvane

LOGGED BY:MM  
REVIEWED:GH



CLIENT ANACONDA MINING INC.  
PROJECT GOLDBORO SITEWIDE GEOTECHNICAL INVESTIGATION  
LOCATION GOLDBORO, NS N 293421.748 m E 5006353.45 m  
DATES (yyyy-mm-dd): BORING 2021-11-24 to 2021-11-26 WATER LEVEL 0.24m 2021-12-3

DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES				UNDRAINED SHEAR STRENGTH - kPa					WELL CONSTRUCTION DETAILS		
					TYPE	NUMBER	RECOVERY(mm) OR TCR %	N-VALUE OR RQD %	OTHER TESTS	10	20	30	40		50	
		Continued from Previous Page														
20		Dark grey, fine to medium grained, massive to poorly developed foliation, GREYWACKE with minor beds of ARGILLITE (continued...)			HQ	19	100%	68%								
21					HQ	20	100%	93%								
22					HQ	21	90%	90%								
23					HQ	22	100%	91%								
24					HQ	23	100%	80%								
25					HQ	24	100%	100%								
26					HQ	25	100%	100%								
27																
28																
29																
30	28.43	End of Borehole at 30.3 m														
31																
32																
33																
34																
35																
36																
37																
38																
39																
40																

- △ Unconfined Compression Test
- Field Vane Test    ■ (Remolded)
- ◇ Fall Cone Test    ◆ (Remolded)
- ▽ Hand Penetrometer Test    ▣ Torvane

LOGGED BY:MM  
REVIEWED:GH

CLIENT ANACONDA MINING INC.  
PROJECT GOLDBORO SITEWIDE GEOTECHNICAL INVESTIGATION  
LOCATION GOLDBORO, NS N 293966.743 m E 5007082.341 m  
DATES (yyyy-mm-dd): BORING 2021-12-2 to 2021-12-2 WATER LEVEL N/A

DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES					UNDRAINED SHEAR STRENGTH - kPa					WELL CONSTRUCTION DETAILS				
					TYPE	NUMBER	RECOVERY (mm) OR TCR %	N-VALUE	OR RQD %	OTHER TESTS	10	20	30	40		50	60	70	80
0	57.34	NOTE: BOREHOLE DRILLED ON SAME PAD AS MW23B & MW23C. REFER TO MW23B & MW23C LOGS FOR DETAILED SOIL AND ROCK INFORMATION																WELL CAP - SU = 0.91 m	
1																			50mm PVC CASING, BENTONITE CHIPS
2																			BENTONITE SEAL SAND
3																			WELL SCREEN
4																			
5																			
6																			
7																			SAND
8	49.52	End of Borehole at 7.8 m																	
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			

- △ Unconfined Compression Test
- Field Vane Test      ■ (Remolded)
- ◇ Fall Cone Test      ◆ (Remolded)
- ▽ Hand Penetrometer Test      ▣ Torvane

LOGGED BY:MM  
REVIEWED:GH





CLIENT ANACONDA MINING INC.  
PROJECT GOLDBORO SITEWIDE GEOTECHNICAL INVESTIGATION  
LOCATION GOLDBORO, NS N 293964.564 m E 5007082.996 m  
DATES (yyyy-mm-dd): BORING 2021-11-30 to 2021-12-2 WATER LEVEL 2.1m 2021-12-3

DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES				UNDRAINED SHEAR STRENGTH - kPa					WELL CONSTRUCTION DETAILS	
					TYPE	NUMBER	RECOVERY(mm) OR TCR %	N-VALUE OR RQD %	OTHER TESTS	10	20	30	40		50
		Continued from Previous Page													
20		Dark grey, fine to medium grained, massive to poorly developed foliation, GREYWACKE with minor beds of ARGILLITE (continued...)			HQ	21	100%	78%							
21			HQ	22	100%	100%									
22			HQ	23	100%	91%									
23			HQ	24	100%	100%									
24			HQ	25	100%	97%									
25			HQ	26	100%	81%									
26			HQ	27	97%	95%									
27															
28															
29															
30	27.22	End of Borehole at 30.3 m NOTE: BULK samples were sampled from inner tube of core barrel													
31															
32															
33															
34															
35															
36															
37															
38															
39															
40															

- △ Unconfined Compression Test
- Field Vane Test      ■ (Remolded)
- ◇ Fall Cone Test      ◆ (Remolded)
- ▽ Hand Penetrometer Test      ▣ Torvane

LOGGED BY:MM  
REVIEWED:GH





CLIENT ANACONDA MINING INC.  
PROJECT GOLDBORO SITEWIDE GEOTECHNICAL INVESTIGATION  
LOCATION GOLDBORO, NS N 293400.458 m E 5007296.117 m  
DATES (yyyy-mm-dd): BORING 2021-9-29 to 2021-9-30 WATER LEVEL 0.37m 2021-10-3

DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES					UNDRAINED SHEAR STRENGTH - kPa					WELL CONSTRUCTION DETAILS				
					TYPE	NUMBER	RECOVERY(mm) OR TCR %	N-VALUE OR RQD %	OTHER TESTS	10	20	30	40	50		60	70	80	
		Continued from Previous Page																	
20	41.46	Dark grey, fine grained, massive to poorly developed foliation, GREYWACKE (continued...)			HQ	13	100%	29%											
21					HQ	14	93%	42%											
22					HQ	15	98%	20%											
23					HQ	16	100%	15%											
24					HQ	17	100%	28%											
25					HQ	18	100%	25%											
26					HQ	19	100%	25%											
27																			
28																			
29																			
30	41.46	End of Borehole at 30.0 m																	
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

- △ Unconfined Compression Test
- Field Vane Test      ■ (Remolded)
- ◇ Fall Cone Test      ◆ (Remolded)
- ▽ Hand Penetrometer Test      ▣ Torvane

LOGGED BY:MM  
REVIEWED:GH







# RECORD OF BOREHOLE



**DRILL HOLE ID: MW26C  
BR-21-273**

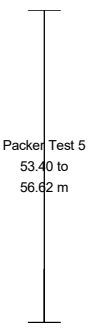
**TOTAL DEPTH: 251.40 m  
N: 5007300.85 E: 293393.53  
ELEVATION: 54.30 m GEODETIC  
WATER LEVEL: 5.7 m**

**DATE STARTED: JUN 21, 2021  
DATE COMPLETED: JUN 26, 2021  
INCLINATION: -90°  
AZIMUTH: 000° COORD. SYS.: NAD83 MTM Zone 4**

**PROJECT NO.: 20-113-H  
CLIENT: ANACONDA MINING**

**PROJECT NAME: GOLDBORO PROJECT - SITEWIDE GEOTECHNICAL FIELD INVESTIGATION**

DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY						DISCONTINUITY DATA			RMR 1976	WELL CONSTRUCTION DETAILS	OTHER TESTS			
						SH-SHEAR JS-JOINT CL-CLEAVAGE VN-VEIN		CONT-CONTACT BD-BEDDING FT-FAULT FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE P-PLANAR U-UNDULATING		RO-ROUGH SL-SLICKENSIDED						INFILL		
						TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX R1 R2 R3 R4	WEATHERING INDEX W1 W2	TYPE AND SURFACE DESCRIPTION			INFILL						
45		Light grey, fine to medium grained GREYWACKE. Trace carbonates, pyrite on fractures (continued...)																		
46			HQ 15	99	95	0.7	5	1	CL, U, IN: cal				64							
47																				
48																				
49				HQ 16	99	98	0.9	5	1	CL, U, IN: sph				74						
50																				
51																				
52			HQ 17	100	83	1.0	5	1	VN, U, IN: sph				61							
53																				
54																				
55			HQ 18	100	55	3.2	5	1	JS, U, IN: cal				57							
56																				
57																				
58			HQ 19	100	96	1.3	5	1	JS, U, IN: cal				64							
59																				
60			HQ 20	98	86	1.2	4	1	BD, U, IN: cal				56							





# RECORD OF BOREHOLE



**DRILL HOLE ID: MW26C  
BR-21-273**

**TOTAL DEPTH: 251.40 m  
N: 5007300.85 E: 293393.53  
ELEVATION: 54.30 m GEODETIC  
WATER LEVEL: 5.7 m**

**DATE STARTED: JUN 21, 2021  
DATE COMPLETED: JUN 26, 2021  
INCLINATION: -90°  
AZIMUTH: 000° COORD. SYS.: NAD83 MTM Zone 4**

**PROJECT NO.: 20-113-H  
CLIENT: ANACONDA MINING**

**PROJECT NAME: GOLDBORO PROJECT - SITEWIDE GEOTECHNICAL FIELD INVESTIGATION**

DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY DATA										RMR 1976	WELL CONSTRUCTION DETAILS	OTHER TESTS				
						SH-SHEAR		CONT-CONTACT		RZ-BROKEN CORE /		RO-ROUGH		INFILL					q-cr-Quartz-Calcite		epi-Epidote	
						JS-JOINT	CL-CLEAVAGE	BD-BEDDING	FT-FAULT	RUBBLE ZONE	SL-SLICKENSIDED	cal-Calcite	gou-Gouge	hem-Hematite	chl-Chlorite				qz-Quartz	sph-Sulphides	cl-Clay Minerals	qz-Quartz
STRUCTURE		TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX	WEATHERING INDEX	TYPE AND SURFACE DESCRIPTION															
60		Light grey, fine to medium grained GREYWACKE. Trace carbonates, pyrite on fractures (continued...)																				
61			HQ 20	98	86	1:2	4	1	BD, U, IN: cal					56								
62																						
63																						
64				HQ 21	100	90	1:5	5	1	JS, U, IN: cal					61							
65																						
66																						
67			HQ 22	99	96	1:1	5	1	JS, U, IN: cal					74								
68																						
69																						
70	-15.8		HQ 23	100	93	1:3	5	1	JS, U, IN: cal					74								
71	-16.7	Light grey, fine grained to very fine grained ARGILLITE with biotite on S1 up to 3%																				
72		Light grey, fine to medium grained GREYWACKE																				
73			HQ 24	98	78	1:6	5	1	JS, U, IN: q-cr-b					61								
74																						
75			HQ 25	100	98	1:3	5	1	BD, U, IN: q-cr-b					74								

# RECORD OF BOREHOLE



**DRILL HOLE ID: MW26C  
BR-21-273**

**TOTAL DEPTH: 251.40 m  
N: 5007300.85 E: 293393.53  
ELEVATION: 54.30 m GEODETIC  
WATER LEVEL: 5.7 m**

**DATE STARTED: JUN 21, 2021  
DATE COMPLETED: JUN 26, 2021  
INCLINATION: -90°  
AZIMUTH: 000° COORD. SYS.: NAD83 MTM Zone 4**

**PROJECT NO.: 20-113-H  
CLIENT: ANACONDA MINING**

**PROJECT NAME: GOLDBORO PROJECT - SITEWIDE GEOTECHNICAL FIELD INVESTIGATION**

DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY										RMR 1976	WELL CONSTRUCTION DETAILS	OTHER TESTS				
						SH-SHEAR JS-JOINT CL-CLEAVAGE VN-VEIN		CONT-CONTACT BD-BEDDING FT-FAULT FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE P-PLANAR U-UNDULATING		RO-ROUGH SL-SLICKENSIDED		INFILL					q-cr-Quartz-Calcite gou-Gouge qtz-Quartz fes-Iron Staining		epi-Epidote hem-Hematite sph-Sulphides bio-Biotite	
						STRUCTURE	TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX R1 R2 R3 R4	WEATHERING INDEX W1 W2	DISCONTINUITY DATA		TYPE AND SURFACE DESCRIPTION								
75		Light grey, fine to medium grained GREYWACKE (continued...)																				
76					HQ 25		100	98	1:3	5	1	BD, U, IN: q-cr-b	74									
77																						
78																						
79					HQ 26		100	89	1:9	5	1	CL, U, IN: q-cr-b	61									
80																						
81	-26.6	Light grey, very fine grained ARGILLITE with minor light grey, fine to medium grained GREYWACKE interbeds																				
82	-27.4	Light grey, fine to medium grained GREYWACKE			HQ 27		98	91	1:4	5	1	CL, U, IN: q-cr-b	64									
83																						
84																						
85					HQ 28		100	80	1:6	5	1	CL, U, IN: q-cr-b	61									
86																						
87																						
88					HQ 29		100	81	1:9	5	1	CL, U, IN: q-cr-b	61									
89																						
90					HQ 30		100	86	1:7	5	1	CL, U, IN: q-cr-b	61									

# RECORD OF BOREHOLE



**DRILL HOLE ID: MW26C  
BR-21-273**

**TOTAL DEPTH: 251.40 m  
N: 5007300.85 E: 293393.53  
ELEVATION: 54.30 m GEODETIC  
WATER LEVEL: 5.7 m**

**DATE STARTED: JUN 21, 2021  
DATE COMPLETED: JUN 26, 2021  
INCLINATION: -90°  
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**PROJECT NO.: 20-113-H  
CLIENT: ANACONDA MINING**

**PROJECT NAME: GOLDBORO PROJECT - SITEWIDE GEOTECHNICAL FIELD INVESTIGATION**

DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY										RMR 1976	WELL CONSTRUCTION DETAILS	OTHER TESTS				
						SH-SHEAR JS-JOINT CL-CLEAVAGE VN-VEIN		CONT-CONTACT BD-BEDDING FT-FAULT FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE P-PLANAR U-UNDULATING		RO-ROUGH SL-SLICKENSIDED		INFILL					q-cr-Quartz-Calcite gou-Gouge qtz-Quartz fes-Iron Staining		epi-Epidote hem-Hematite sph-Sulphides bio-Biotite	
						STRUCTURE	TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX R1 R2 R3 R4	WEATHERING INDEX W1 W2	DISCONTINUITY DATA		TYPE AND SURFACE DESCRIPTION								
90		Light grey, fine to medium grained GREYWACKE (continued...)																				
91			HQ 30	100	86	1.7	5	1	CL, U, IN: q-cr-b	61												
92																						
93																						
94				HQ 31	100	95	1.4	5	1	CL, U, IN: q-cr-b	64											
95																						
96																						
97			HQ 32	100	91	1.4	5	1	CL, U, IN: q-cr-b	64												
98																						
99																						
100			HQ 33	99	96	0.6	5	1	JS, U, IN: q-cr-b	74												
101																						
102																						
103	-48.4	Light grey, fine grained to very fine grained ARGILLITE, biotite on S1 up to 5%	HQ 34	100	100	0.6	4	1	BD, P, IN: bio	69												
104			HQ 35	100	98	1.3	4	1	BD, P, IN: bio	69												
105																						

# RECORD OF BOREHOLE



**DRILL HOLE ID: MW26C  
BR-21-273**

**TOTAL DEPTH: 251.40 m  
N: 5007300.85 E: 293393.53  
ELEVATION: 54.30 m GEODETIC  
WATER LEVEL: 5.7 m**

**DATE STARTED: JUN 21, 2021  
DATE COMPLETED: JUN 26, 2021  
INCLINATION: -90°  
AZIMUTH: 000° COORD. SYS.: NAD83 MTM Zone 4**

**PROJECT NO.: 20-113-H  
CLIENT: ANACONDA MINING**

**PROJECT NAME: GOLDBORO PROJECT - SITEWIDE GEOTECHNICAL FIELD INVESTIGATION**

DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY										DISCONTINUITY DATA			OTHER TESTS				
						SH-SHEAR JS-JOINT CL-CLEAVAGE VN-VEIN		CONT-CONTACT BD-BEDDING FT-FAULT FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE P-PLANAR U-UNDULATING		RO-ROUGH SL-SLICKENSIDED		INFILL		q-crb-Quartz-Calcite gou-Gouge qtz-Quartz fes-Iron Staining		epi-Epidote hem-Hematite sph-Sulphides bio-Biotite		RMR 1976	WELL CONSTRUCTION DETAILS		
						30	40	60	80	20	40	60	80	5	10	15	R1	R2				R3	R4
STRUCTURE	TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX	WEATHERING INDEX	TYPE AND SURFACE DESCRIPTION																	
105	-51.1	Light grey, fine to medium grained GREYWACKE			HQ 35	100	98	1:3	4	1	BD, P, IN: bio										69		
106					HQ 36	100	100	0:6	5	1	JS, U, IN: q-crb										74		
107																							
108																							
109																							
110	-55.5	Light grey, very fine grained ARGILLITE with biotite on S1 up to 5%																					
111	-55.9	Light grey, fine to medium grained GREYWACKE			HQ 37	100	100	0:6	4	1	BD, U, IN: q-crb										69		
112																							
113																							
114	-59.7	Light grey, fine grained ARGILLITE with biotite, carbonates on S1 up to 5%			HQ 38	100	97	1:1	5	1	JS, U, IN: q-crb										74		
115	-60.7	Light grey, fine to medium grained GREYWACKE																					
116																							
117																							
118	-63.9	Light grey, fine grained seritized ARGILLITE, with interbedded quartz			HQ 39	100	95	0:9	5	1	VN, U, IN: q-crb										74		
119																							
120	-65.5				HQ 40	99	96	0:7	5	1	VN, U, IN: q-crb										74		

# RECORD OF BOREHOLE



**DRILL HOLE ID: MW26C  
BR-21-273**

**TOTAL DEPTH: 251.40 m  
N: 5007300.85 E: 293393.53  
ELEVATION: 54.30 m GEODETIC  
WATER LEVEL: 5.7 m**

**DATE STARTED: JUN 21, 2021  
DATE COMPLETED: JUN 26, 2021  
INCLINATION: -90°  
AZIMUTH: 000° COORD. SYS.: NAD83 MTM Zone 4**

**PROJECT NO.: 20-113-H  
CLIENT: ANACONDA MINING**

**PROJECT NAME: GOLDBORO PROJECT - SITEWIDE GEOTECHNICAL FIELD INVESTIGATION**

DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY										DISCONTINUITY DATA		OTHER TESTS		
						SH-SHEAR JS-JOINT CL-CLEAVAGE VN-VEIN		CONT-CONTACT BD-BEDDING FT-FAULT FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE P-PLANAR U-UNDULATING		RO-ROUGH SL-SLICKENSIDED		ZNF-LL		q-cr-Quartz-Calcite gou-Gouge qtz-Quartz fes-Iron Staining			epi-Epidote hem-Hematite sph-Sulphides bio-Biotite	
						STRUCTURE	TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX	WEATHERING INDEX	TYPE AND SURFACE DESCRIPTION		RMR 1976	WELL CONSTRUCTION DETAILS					
120		Light grey, fine to medium grained GREYWACKE (continued...)																		
121					HQ 40		99	96	0.7	5	1	VN, U, IN: q-cr-b		74						
122																				
123																				
124					HQ 41		100	99	0.3	5	1	CL, P, IN: cal		74						
125																				
126																				
127	-72.4	Light grey, fine grained ARGILLITE, with biotite on S1 up to 5%			HQ 42		98	98	0.4	5	1	CL, P, IN: cal		74						
128	-73.5	Light grey, fine to medium grained GREYWACKE																		
129																				
130					HQ 43		99	99	0.4	5	1	JS, U, IN: cal		74						
131																				
132																				
133					HQ 44		100	98	0.5	5	1	JS, U, IN: q-cr-b		74						
134																				
135					HQ 45		100	97	0.7	5	1	BD, U, IN: q-cr-b		74						

# RECORD OF BOREHOLE



**DRILL HOLE ID: MW26C  
BR-21-273**

**TOTAL DEPTH: 251.40 m  
N: 5007300.85 E: 293393.53  
ELEVATION: 54.30 m GEODETIC  
WATER LEVEL: 5.7 m**

**DATE STARTED: JUN 21, 2021  
DATE COMPLETED: JUN 26, 2021  
INCLINATION: -90°  
AZIMUTH: 000° COORD. SYS.: NAD83 MTM Zone 4**

**PROJECT NO.: 20-113-H  
CLIENT: ANACONDA MINING**

**PROJECT NAME: GOLDBORO PROJECT - SITEWIDE GEOTECHNICAL FIELD INVESTIGATION**

DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY						DISCONTINUITY DATA		RMR 1976	WELL CONSTRUCTION DETAILS	OTHER TESTS		
						SH-SHEAR JS-JOINT CL-CLEAVAGE VN-VEIN		CONT-CONTACT BD-BEDDING FT-FAULT FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE P-PLANAR U-UNDULATING		RO-ROUGH SL-SLICKENSIDED					INFILL	
						TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX R1 R2 R3 R4	WEATHERING INDEX W1 W2	TYPE AND SURFACE DESCRIPTION		cln-Clean cal-Calcite chi-Chlorite cly-Clay Minerals q-cr-Quartz Calcite gou-Gouge qtz-Quartz fes-Iron Staining epi-Epidote hem-Hematite sph-Sulphides bio-Biotite					
135		Light grey, fine to medium grained GREYWACKE (continued...)																
136			HQ 45	100	97	0.7	5	1	BD, U, IN: q-cr-b	74								
137																		
138																		
139			HQ 46	100	98	1.4	5	1	BD, U, IN: q-cr-b	64								
140																		
141																		
142																		
143																		
144	-89.1	Light grey, fine grained to very fine grained ARGILLITE. Trace silica near bedding plane fractures with chlorite																
145	HQ 47		100	100	0.2	5	1	JS, U, IN: q-cr-b	79									
146																		
147																		
148	-92.1	Light grey, fine to medium grained GREYWACKE																
149	HQ 48		100	97	0.8	5	1	JS, U, IN: q-cr-b	74									
150																		
151	-95.6																	
152																		
153																		
154																		
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# RECORD OF BOREHOLE



**DRILL HOLE ID: MW26C  
BR-21-273**

**TOTAL DEPTH: 251.40 m  
N: 5007300.85 E: 293393.53  
ELEVATION: 54.30 m GEODETIC  
WATER LEVEL: 5.7 m**

**DATE STARTED: JUN 21, 2021  
DATE COMPLETED: JUN 26, 2021  
INCLINATION: -90°  
AZIMUTH: 000° COORD. SYS.: NAD83 MTM Zone 4**

**PROJECT NO.: 20-113-H  
CLIENT: ANACONDA MINING**

**PROJECT NAME: GOLDBORO PROJECT - SITEWIDE GEOTECHNICAL FIELD INVESTIGATION**

DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY										RMR 1976	WELL CONSTRUCTION DETAILS	OTHER TESTS				
						SH-SHEAR JS-JOINT CL-CLEAVAGE VN-VEIN		CONT-CONTACT BD-BEDDING FT-FAULT FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE P-PLANAR U-UNDULATING		RO-ROUGH SL-SLICKENSIDED		INFILL					q-cr-Quartz-Calcite gou-Gouge qtz-Quartz fes-Iron Staining		epi-Epidote hem-Hematite sph-Sulphides bio-Biotite	
						STRUCTURE	TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX R1 R2 R3 R4	WEATHERING INDEX W1 W2	DISCONTINUITY DATA		TYPE AND SURFACE DESCRIPTION								
195		Light grey, fine to medium grained GREYWACKE. Fault at 202.9-203.3m. Trace carbonates, silica on fractures throughout (continued...)			HQ 65		95	67	2:7	5	1	RZ, U, IN: RZ		57		Packer Test 3 194.40 to 197.62 m						
196			HQ 66	100	99	0:4	5	1	BD, U, IN: q-cr		74											
197			HQ 67	100	80	2:2	5	1	FT, U, IN: gou		55											
198			HQ 68	100	100	0:4	5	1	BD, U, IN: q-cr		74											
199			HQ 69	100	92	0:9	5	1	BD, U, IN: bio		74											
200	-150.7	Light grey, fine grained to very fine grained ARGILLITE with biotite on S1 up to 2%			HQ 70		100	99	1:0	5	1	BD, U, IN: q-cr		74								
201		Light grey, fine to medium grained GREYWACKE																				
202																						
203																						
204																						
205																						
206																						
207																						
208	-153.9																					
209																						
210																						











CLIENT ANACONDA MINING INC.  
PROJECT GOLDBORO SITEWIDE GEOTECHNICAL INVESTIGATION  
LOCATION GOLDBORO, NS N 293739.016 m E 5006751.286 m  
DATES (yyyy-mm-dd): BORING 2021-12-3 to 2021-12-4 WATER LEVEL N/A

DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES				OTHER TESTS	UNDRAINED SHEAR STRENGTH - kPa					WELL CONSTRUCTION DETAILS							
					TYPE	NUMBER	RECOVERY(mm) OR TCR %	N-VALUE OR RQD %		10	20	30	40	50								
		Continued from Previous Page								WATER CONTENT & ATTERBERG LIMITS $W_p$ $W$ $W_L$ DYNAMIC PENETRATION TEST, BLOWS/0.3m    ★ STANDARD PENETRATION TEST, BLOWS/0.3m    ●												
20		Dark grey, fine to medium grained, massive to poorly developed foliation, GREYWACKE with minor beds of ARGILLITE (continued...)			HQ	11	100%	67%														
21					HQ	12	100%	86%														
22					HQ	13	100%	46%														
23																						
24	31.96	End of Borehole at 24.5 m																				
25																						
26																						
27																						
28																						
29																						
30																						
31																						
32																						
33																						
34																						
35																						
36																						
37																						
38																						
39																						
40																						

- △ Unconfined Compression Test
- Field Vane Test    ■ (Remolded)
- ◇ Fall Cone Test    ◆ (Remolded)
- ▽ Hand Penetrometer Test    ▣ Torvane

LOGGED BY:MM/JT  
REVIEWED:GH







CLIENT ANACONDA MINING INC.  
PROJECT GOLDBORO SITEWIDE GEOTECHNICAL INVESTIGATION  
LOCATION GOLDBORO, NS N 293611.295 m E 5007333.184 m  
DATES (yyyy-mm-dd): BORING 2021-10-16 to 2021-10-18 WATER LEVEL 8.04m 2021-10-21

DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES				UNDRAINED SHEAR STRENGTH - kPa					WELL CONSTRUCTION DETAILS		
					TYPE	NUMBER	RECOVERY(mm) OR TCR %	N-VALUE OR RQD %	OTHER TESTS	10	20	30	40		50	
		Continued from Previous Page														
20		Dark grey, fine grained, massive to poorly developed foliation, greywacke, interbedded with argillite. Quartz veins present. (continued...)			HQ	17	100%	93%								
21					HQ	18	100%	88%								
22					HQ	19	100%	79%								
23					HQ	20	100%	52%								
24					HQ	21	95%	76%								
25					HQ	22	100%	85%								
26					HQ	23	100%	83%								
27																
28	35.70	End of Borehole at 30.4 m														
29																
30																
31																
32																
33																
34																
35																
36																
37																
38																
39																
40																

- △ Unconfined Compression Test
- Field Vane Test    ■ (Remolded)
- ◇ Fall Cone Test    ◆ (Remolded)
- ▽ Hand Penetrometer Test    ▣ Torvane

LOGGED BY:MM  
REVIEWED:GH



# RECORD OF BOREHOLE



**DRILL HOLE ID: MW30C  
BR-21-272**

**TOTAL DEPTH: 251.30 m  
N: 5007332.06 E: 293607.55  
ELEVATION: 48.90 m GEODETIC  
WATER LEVEL: 11.9 m**

**DATE STARTED: JUN 15, 2021  
DATE COMPLETED: JUN 20, 2021  
INCLINATION: -90°  
AZIMUTH: 000° COORD. SYS.: NAD83 MTM Zone 4**

**PROJECT NO.: 20-113-H  
CLIENT: ANACONDA MINING**

**PROJECT NAME: GOLDBORO PROJECT - SITEWIDE GEOTECHNICAL FIELD INVESTIGATION**

DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY						DISCONTINUITY DATA		RMR 1976	WELL CONSTRUCTION DETAILS	OTHER TESTS						
						SH-SHEAR JS-JOINT CL-CLEAVAGE VN-VEIN		CONT-CONTACT BD-BEDDING FT-FAULT FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE P-PLANAR U-UNDULATING		RO-ROUGH SL-SLICKENSIDED					ZNFLL cln-Clean cal-Calcite chl-Chlorite cly-Clay Minerals		q-cr-Quartz-Calcite gou-Gouge qtz-Quartz fes-Iron Staining		epi-Epidote hem-Hematite sph-Sulphides bio-Biotite	
						STRUCTURE	TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX	WEATHERING INDEX	TYPE AND SURFACE DESCRIPTION										
15		Light grey, fine grained ARGILLITE. Minor light grey, fine to medium grained GREYWACKE interbeds. (continued...)			HQ 5																	
16						100	90	1.8	4	2	BD, U, IN: fes	56										
17		Light to medium grey, medium grained GREYWACKE.			HQ 6																	
18	30.9					99	83	1.8	4	1	BD, U, IN: chl	56										
19																						
20																						
21																						
22					HQ 7	100	98	0.8	5	1	JS, U, IN: cal	74										
23																						
24					HQ 8	100	97	1.0	5	1	BD, U, IN: cal	74										
25																						
26																						
27					HQ 9	100	94	1.3	5	1	BD, U, IN: cal	74										
28																						
29																						
30					HQ 10	100	98	1.0	5	1	BD, U, IN: q-cr	74										

# RECORD OF BOREHOLE



**DRILL HOLE ID: MW30C  
BR-21-272**

**TOTAL DEPTH: 251.30 m  
N: 5007332.06 E: 293607.55  
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WATER LEVEL: 11.9 m**

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**PROJECT NO.: 20-113-H  
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**PROJECT NAME: GOLDBORO PROJECT - SITEWIDE GEOTECHNICAL FIELD INVESTIGATION**

DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY										RMR 1976	WELL CONSTRUCTION DETAILS	OTHER TESTS				
						SH-SHEAR JS-JOINT CL-CLEAVAGE VN-VEIN		CONT-CONTACT BD-BEDDING FT-FAULT FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE P-PLANAR U-UNDULATING		RO-ROUGH SL-SLICKENSIDED		INFILL					q-cr-Quartz-Calcite gou-Gouge qtz-Quartz fes-Iron Staining		epi-Epidote hem-Hematite sph-Sulphides bio-Biotite	
						STRUCTURE	TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX R1 R2 R3 R4	WEATHERING INDEX W1 W2	DISCONTINUITY DATA		TYPE AND SURFACE DESCRIPTION								
30		Light to medium grey, medium grained GREYWACKE. <i>(continued...)</i>																				
31			HQ 10	100	98	1.0	5	1	BD, U, IN: q-cr-b	74												
32																						
33																						
34				HQ 11	100	97	0.8	5	1	JS, U, IN: cal	74											
35																						
36																						
37			HQ 12	100	72	2.5	5	1	JS, U, IN: cal	57												
38																						
39																						
40			HQ 13	100	76	1.3	5	1	JS, U, IN: q-cr-b	61												
41																						
42	7.4	Light grey, fine to very fine grained ARGILLITE.																				
43			HQ 14	100	89	1.3	4	1	FT, U, IN: gou	50												
44																						
45	4.6	Light to medium grey, medium grained GREYWACKE.																				
			HQ 15	100	90	0.9	5	1	BD, U, IN: cal	71												

# RECORD OF BOREHOLE



**DRILL HOLE ID: MW30C  
BR-21-272**

**TOTAL DEPTH: 251.30 m  
N: 5007332.06 E: 293607.55  
ELEVATION: 48.90 m GEODETIC  
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**DATE STARTED: JUN 15, 2021  
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**PROJECT NO.: 20-113-H  
CLIENT: ANACONDA MINING**

**PROJECT NAME: GOLDBORO PROJECT - SITEWIDE GEOTECHNICAL FIELD INVESTIGATION**

DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY										RMR 1976	WELL CONSTRUCTION DETAILS	OTHER TESTS				
						SH-SHEAR JS-JOINT CL-CLEAVAGE VN-VEIN		CONT-CONTACT BD-BEDDING FT-FAULT FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE P-PLANAR U-UNDULATING		RO-ROUGH SL-SLICKENSIDED		INFILL					q-crb-Quartz-Calcite gou-Gouge qtz-Quartz fes-Iron Staining		epi-Epidote hem-Hematite sph-Sulphides bio-Biotite	
						STRUCTURE	TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX R1 R2 R3 R4	WEATHERING INDEX W1 W2	DISCONTINUITY DATA		TYPE AND SURFACE DESCRIPTION								
45		Light to medium grey, medium grained GREYWACKE. (continued...)																				
46			HQ 15	100	90	0.9	5	1	BD, U, IN: cal			71										
47																						
48																						
49				HQ 16	100	94	1.3	5	1	JS, U, IN: cal			64									
50																						
51																						
52			HQ 17	99	90	0.5	5	1	JS, U, IN: cln			71										
53																						
54																						
55			HQ 18	100	96	1.3	5	1	JS, U, IN: sph			74										
56																						
57																						
58			HQ 19	100	98	1.0	5	1	CL, P, IN: cal			74										
59																						
60			HQ 20	99	92	1.0	5	1	JS, U, IN: q-crb			74										

# RECORD OF BOREHOLE



**DRILL HOLE ID: MW30C  
BR-21-272**

**TOTAL DEPTH: 251.30 m  
N: 5007332.06 E: 293607.55  
ELEVATION: 48.90 m GEODETIC  
WATER LEVEL: 11.9 m**

**DATE STARTED: JUN 15, 2021  
DATE COMPLETED: JUN 20, 2021  
INCLINATION: -90°  
AZIMUTH: 000° COORD. SYS.: NAD83 MTM Zone 4**

**PROJECT NO.: 20-113-H  
CLIENT: ANACONDA MINING**

**PROJECT NAME: GOLDBORO PROJECT - SITEWIDE GEOTECHNICAL FIELD INVESTIGATION**

DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY										DISCONTINUITY DATA		OTHER TESTS				
						SH-SHEAR JS-JOINT CL-CLEAVAGE VN-VEIN		CONT-CONTACT BD-BEDDING FT-FAULT FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE P-PLANAR U-UNDULATING		RO-ROUGH SL-SLICKENSIDED		ZNFLL		q-cr-Quartz-Calcite gou-Gouge qz-Quartz fes-Iron Staining			epi-Epidote hem-Hematite sph-Sulphides bio-Biotite		RMR 1976	WELL CONSTRUCTION DETAILS
						30	40	60	80	20	30	40	50	60	80	5	10		15	R1		
STRUCTURE	TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX	WEATHERING INDEX	TYPE AND SURFACE DESCRIPTION																
60		Light to medium grey, medium grained GREYWACKE. <i>(continued...)</i>			HO 20	99	92	1.0	5	1	JS, U, IN: q-cr- BD, U, IN: sph		74									
61					HO 21	100	90	1.5	4	1	BD, U, IN: sph		56									
62																						
63																						
64																						
65																						
66																						
67	-18.0	Light grey, fine grained ARGILLITE.			HO 22	99	99	0.5	5	1	BD, U, IN: cal		74									
68	-19.3	Light to medium grey, medium grained GREYWACKE.			HO 23	100	94	1.0	5	1	JS, U, IN: cal		74									
69																						
70																						
71																						
72																						
73					HO 24	99	98	1.0	4	1	BD, P, IN: bio		69									
74																						
75					HO 25	100	100	0.7	5	1	JS, U, IN: q-cr- BD, U, IN: sph		74									



# RECORD OF BOREHOLE



**DRILL HOLE ID: MW30C  
BR-21-272**

**TOTAL DEPTH: 251.30 m  
N: 5007332.06 E: 293607.55  
ELEVATION: 48.90 m GEODETIC  
WATER LEVEL: 11.9 m**

**DATE STARTED: JUN 15, 2021  
DATE COMPLETED: JUN 20, 2021  
INCLINATION: -90°  
AZIMUTH: 000° COORD. SYS.: NAD83 MTM Zone 4**

**PROJECT NO.: 20-113-H  
CLIENT: ANACONDA MINING**

**PROJECT NAME: GOLDBORO PROJECT - SITEWIDE GEOTECHNICAL FIELD INVESTIGATION**

DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY										RMR 1976	WELL CONSTRUCTION DETAILS	OTHER TESTS				
						SH-SHEAR JS-JOINT CL-CLEAVAGE VN-VEIN		CONT-CONTACT BD-BEDDING FT-FAULT FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE P-PLANAR U-UNDULATING		RO-ROUGH SL-SLICKENSIDED		INFILL					q-cr-Quartz-Calcite gou-Gouge qtz-Quartz fes-Iron Staining		epi-Epidote hem-Hematite sph-Sulphides bio-Biotite	
						STRUCTURE	TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX R1 R2 R3 R4	WEATHERING INDEX W1 W2	DISCONTINUITY DATA		TYPE AND SURFACE DESCRIPTION								
75		Light to medium grey, medium grained GREYWACKE. (continued...)			HO 25		100	100	0.7	5	1	JS, U, IN: q-cr		74								
76																						
77																						
78																						
79					HO 26		100	97	1.0	5	1	BD, U, IN: q-cr		74								
80	-31.1	Light grey, fine to very fine grained ARGILLITE.																				
81	-32.2																					
82		Light to medium grey, medium grained GREYWACKE.			HO 27		100	97	0.5	5	1	BD, U, IN: bio		74								
83																						
84																						
85					HO 28		100	94	1.3	5	1	JS, P, IN: chl		64								
86																						
87																						
88					HO 29		100	97	1.0	5	1	JS, U, IN: q-cr		74								
89																						
90					HO 30		100	99	0.8	5	1	FT, P, IN: gou		68								









# RECORD OF BOREHOLE



**DRILL HOLE ID: MW30C  
BR-21-272**

**TOTAL DEPTH: 251.30 m  
N: 5007332.06 E: 293607.55  
ELEVATION: 48.90 m GEODETIC  
WATER LEVEL: 11.9 m**

**DATE STARTED: JUN 15, 2021  
DATE COMPLETED: JUN 20, 2021  
INCLINATION: -90°  
AZIMUTH: 000° COORD. SYS.: NAD83 MTM Zone 4**

**PROJECT NO.: 20-113-H  
CLIENT: ANACONDA MINING**

**PROJECT NAME: GOLDBORO PROJECT - SITEWIDE GEOTECHNICAL FIELD INVESTIGATION**

DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY										DISCONTINUITY DATA		OTHER TESTS		
						SH-SHEAR JS-JOINT CL-CLEAVAGE VN-VEIN		CONT-CONTACT BD-BEDDING FT-FAULT FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE P-PLANAR U-UNDULATING		RO-ROUGH SL-SLICKENSIDED		ZNFLL cln-Clean cal-Calcite chl-Chlorite cly-Clay Minerals		q-cr-Quartz-Calcite gou-Gouge qtz-Quartz fes-Iron Staining			epi-Epidote hem-Hematite sph-Sulphides bio-Biotite	
						STRUCTURE	TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX	WEATHERING INDEX	TYPE AND SURFACE DESCRIPTION		RMR 1976	WELL CONSTRUCTION DETAILS					
150		Light to medium grey, medium grained GREYWACKE, minor dark grey, fine grained ARGILLITE interbeds up to 15 cm. (continued...)																		
151			HO 50	99	98	1.2	4	1	BD, U, IN: bio	69										
152																				
153																				
154				HO 51	99	87	1.7	4	1	BD, U, IN: sph	56									
155																				
156																				
157			HO 52	100	98	1.0	5	1	CL, P, IN: bio	74										
158																				
159																				
160			HO 53	99	95	0.8	4	1	BD, U, IN: q-cr- b	69										
161																				
162																				
163			HO 54	100	90	1.5	5	1	BD, U, IN: q-cr- b	61										
164																				
165			HO 55	100	95	1.1	5	1	CL, U, IN: q-cr- b	64										

# RECORD OF BOREHOLE



**DRILL HOLE ID: MW30C  
BR-21-272**

**TOTAL DEPTH: 251.30 m  
N: 5007332.06 E: 293607.55  
ELEVATION: 48.90 m GEODETIC  
WATER LEVEL: 11.9 m**

**DATE STARTED: JUN 15, 2021  
DATE COMPLETED: JUN 20, 2021  
INCLINATION: -90°  
AZIMUTH: 000° COORD. SYS.: NAD83 MTM Zone 4**

**PROJECT NO.: 20-113-H  
CLIENT: ANACONDA MINING**

**PROJECT NAME: GOLDBORO PROJECT - SITEWIDE GEOTECHNICAL FIELD INVESTIGATION**

DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY										RMR 1976	WELL CONSTRUCTION DETAILS	OTHER TESTS				
						SH-SHEAR JS-JOINT CL-CLEAVAGE VN-VEIN		CONT-CONTACT BD-BEDDING FT-FAULT FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE P-PLANAR U-UNDULATING		RO-ROUGH SL-SLICKENSIDED		INFILL					q-cr-Quartz-Calcite gou-Gouge qtz-Quartz fes-Iron Staining		epi-Epidote hem-Hematite sph-Sulphides bio-Biotite	
						STRUCTURE	TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX R1 R2 R3 R4	WEATHERING INDEX W1 W2	DISCONTINUITY DATA		TYPE AND SURFACE DESCRIPTION								
165		Light to medium grey, medium grained GREYWACKE, minor dark grey, fine grained ARGILLITE interbeds up to 15 cm. (continued...)																				
166			HQ 55	100	95	1.1	5	1	CL, U, IN: q-cr-b	64												
167																						
168				HQ 56	100	70	2.4	5	1	CL, U, IN: q-cr-b	57											
169																						
170																						
171																						
172			HQ 57	100	97	0.3	5	1	CL, U, IN: q-cr-b	74												
173																						
174																						
175	-126.0	Light grey, fine grained ARGILLITE, minor light grey, fine grained GREYWACKE interbeds.																				
175.5	-125.5	Light to medium grey, medium grained GREYWACKE.																				
176			HQ 58	97	88	1.0	4	1	BD, U, IN: q-cr-b	56												
177																						
178			HQ 59	99	85	1.3	5	1	CL, U, IN: q-cr-b	61												
179																						
180			HQ 60	93	88	1.5	5	1	JS, P, IN: q-cr-b	61												

Packer Test 3  
167.80 to 170.52 m





# RECORD OF BOREHOLE



**DRILL HOLE ID: MW30C  
BR-21-272**

**TOTAL DEPTH: 251.30 m  
N: 5007332.06 E: 293607.55  
ELEVATION: 48.90 m GEODETIC  
WATER LEVEL: 11.9 m**

**DATE STARTED: JUN 15, 2021  
DATE COMPLETED: JUN 20, 2021  
INCLINATION: -90°  
AZIMUTH: 000° COORD. SYS.: NAD83 MTM Zone 4**

**PROJECT NO.: 20-113-H  
CLIENT: ANACONDA MINING**

**PROJECT NAME: GOLDBORO PROJECT - SITEWIDE GEOTECHNICAL FIELD INVESTIGATION**

DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	DISCONTINUITY	STRUCTURE										DISCONTINUITY DATA		WELL CONSTRUCTION DETAILS	OTHER TESTS			
						RUN NO.	SH-SHEAR JS-JOINT CL-CLEAVAGE VN-VEIN		CONT-CONTACT BD-BEDDING FT-FAULT FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE P-PLANAR U-UNDULATING		RO-ROUGH SL-SLICKENSIDED		ZNF-CLN Clean cal-Calcite chl-Chlorite cly-Clay Minerals		q-crb-Quartz-Calcite gou-Gouge qtz-Quartz fes-Iron Staining			epi-Epidote hem-Hematite sph-Sulphides bio-Biotite		
							TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX R1 R2 R3 R4	WEATHERING INDEX W1 W2	TYPE AND SURFACE DESCRIPTION		RMR 1976								
195		Light to medium grey, medium grained GREYWACKE. (continued...)				HQ 65	100	61	2:0	4	1	BD, U, IN: bio	52			<p>Packer Test 2 194.80 to 197.52 m</p>						
196						HQ 66	99	99	0:6	5	1	JS, U, IN: cln	74									
199	-149.9	Light grey, fine grained ARGILLITE, minor light grey, fine grained GREYWACKE interbeds.				HQ 67	100	100	1:0	5	1	BD, P, IN: cln	74									
200	-151.2	Light to medium grey, medium grained GREYWACKE.				HQ 68	100	100	0:4	5	1	JS, U, IN: q-crb	74									
201						HQ 69	100	100	0:5	5	1	JS, U, IN: q-crb	74									
202						HQ 70	100	96	0:6	4	1	JS, U, IN: sph	69									



# RECORD OF BOREHOLE



**DRILL HOLE ID: MW30C  
BR-21-272**

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N: 5007332.06 E: 293607.55  
ELEVATION: 48.90 m GEODETIC  
WATER LEVEL: 11.9 m**

**DATE STARTED: JUN 15, 2021  
DATE COMPLETED: JUN 20, 2021  
INCLINATION: -90°  
AZIMUTH: 000° COORD. SYS.: NAD83 MTM Zone 4**

**PROJECT NO.: 20-113-H  
CLIENT: ANACONDA MINING**

**PROJECT NAME: GOLDBORO PROJECT - SITEWIDE GEOTECHNICAL FIELD INVESTIGATION**

DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY										RMR 1976	WELL CONSTRUCTION DETAILS	OTHER TESTS				
						SH-SHEAR		CONT-CONTACT		RZ-BROKEN CORE /		RO-ROUGH		INFILL					q-crb-Quartz-Calcite		epi-Epidote	
						JS-JOINT	CL-CLEAVAGE	BD-BEDDING	FT-FAULT	RUBBLE ZONE	SL-SLICKENSIDED	cal-Calcite	chl-Chlorite	gou-Gouge	qz-Quartz				hem-Hematite	sph-Sulphides	bio-Biotite	
225		Light to medium grey, medium grained GREYWACKE. Biotite on S1 foliation in lenses up to 1mm. (continued...)				SH	CL	BD	FT	RZ	RO	cal	chl	gou	qz	hem	sph	bio				
226			HO 75	100	60	3:8	4	1	JS, U, IN: bio	52										Packer Test 1 224.80 to 227.52 m		
227																						
228																						
229				HO 76	100	100	0:8	5	1	JS, U, IN: bio	74											
230																						
231																						
232			HO 77	100	97	0:6	5	1	JS, U, IN: q-crb	74												
233																						
234																						
235			HO 78	99	99	0:5	5	1	CL, U, IN: q-crb	74												
236																						
237																						
238			HO 79	100	100	0:2	5	1	CL, U, IN: q-crb	79												
239																						
240			HO 80	100	89	0:7	5	1	JS, U, IN: q-crb	71												

# RECORD OF BOREHOLE



**DRILL HOLE ID: MW30C  
BR-21-272**

**TOTAL DEPTH: 251.30 m  
N: 5007332.06 E: 293607.55  
ELEVATION: 48.90 m GEODETIC  
WATER LEVEL: 11.9 m**

**DATE STARTED: JUN 15, 2021  
DATE COMPLETED: JUN 20, 2021  
INCLINATION: -90°  
AZIMUTH: 000° COORD. SYS.: NAD83 MTM Zone 4**

**PROJECT NO.: 20-113-H  
CLIENT: ANACONDA MINING**

**PROJECT NAME: GOLDBORO PROJECT - SITEWIDE GEOTECHNICAL FIELD INVESTIGATION**

DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY										RMR 1976	WELL CONSTRUCTION DETAILS	OTHER TESTS				
						SH-SHEAR		CONT-CONTACT		RZ-BROKEN CORE /		RO-ROUGH		INFILL					q-crb-Quartz-Calcite		epi-Epidote	
						JS-JOINT	CL-CLEAVAGE	BD-BEDDING	FT-FAULT	RUBBLE ZONE	SL-SLICKENSIDED	cal-Calcite	gou-Gouge	hem-Hematite	chn-Clean				chl-Chlorite	qz-Quartz	fes-Iron Staining	sph-Sulphides
VN-VEIN		FO-FOLIATION		P-PLANAR		U-UNDULATING																
						STRUCTURE	TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX	WEATHERING INDEX	DISCONTINUITY DATA										
												TYPE AND SURFACE DESCRIPTION										
240		Light to medium grey, medium grained GREYWACKE. Biotite on S1 foliation in lenses up to 1mm. (continued...)																				
241			HQ 80	100	89	0.7	5	1	JS, U, IN: q-crb	71												
242																						
243			HQ 81	100	95	0.9	5	1	JS, U, IN: cln	74												
244																						
245																						
246																						
247																						
248																						
249																						
250																						
251	-202.4																					
252		END BOREHOLE @ 251.3 m																				
253																						
254																						
255																						

CLIENT ANACONDA MINING INC.  
PROJECT GOLDBORO SITEWIDE GEOTECHNICAL INVESTIGATION  
LOCATION GOLDBORO, NS N 293661.224 m E 5007643.017 m  
DATES (yyyy-mm-dd): BORING 2021-10-8 to 2021-10-8 WATER LEVEL 0.97m 2021-10-12

DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES					UNDRAINED SHEAR STRENGTH - kPa					WELL CONSTRUCTION DETAILS			
					TYPE	NUMBER	RECOVERY(mm) OR TCR %	N-VALUE	OR RQD %	OTHER TESTS	10	20	30	40		50	60	70
0	59.62	OVERBURDEN NOTE: BOREHOLE DRILLED ON SAME PAD AS MW42B. REFER TO MW42B LOG FOR DETAILED SOIL AND ROCK INFORMATION																WELL CAP - SU = 0.9 m 50mm PVC CASING BENTONITE CHIPS BENTONITE SEAL SAND WELL SCREEN
5	54.74	Dark grey, fine to medium grained, massive to poorly developed foliation GREYWACKE																SAND
6	54.54	End of Borehole at 5.1 m																
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		

- △ Unconfined Compression Test
- Field Vane Test    ■ (Remolded)
- ◇ Fall Cone Test    ◆ (Remolded)
- ▽ Hand Penetrometer Test    ▣ Torvane

LOGGED BY:MM  
REVIEWED:GH





CLIENT ANACONDA MINING INC.  
PROJECT GOLDBORO SITEWIDE GEOTECHNICAL INVESTIGATION  
LOCATION GOLDBORO, NS N 293435.565 m E 5008093.175 m  
DATES (yyy-mm-dd): BORING 2021-10-15 to 2021-10-16 WATER LEVEL 0.76m 2021-10-18

DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES					UNDRAINED SHEAR STRENGTH - kPa					WELL CONSTRUCTION DETAILS		
					TYPE	NUMBER	RECOVERY(mm) OR TCR %	N-VALUE	OR RQD %	OTHER TESTS	10	20	30	40		50	60
0	60.94	OVERBURDEN NOTE: BOREHOLE DRILLED ON SAME PAD AS MW43B. REFER TO MW43B LOG FOR DETAILED SOIL AND ROCK INFORMATION															WELL CAP - SU = 0.91 m
1																	50mm PVC CASING, BENTONITE CHIPS
2																	
3																	
4																	
5																	
6	54.67																
7		Dark grey, fine to medium grained, massive to poorly developed foliation GREYWACKE			HQ	1	100%	80%									
8																	BENTONITE SEAL
9																	SAND
10																	WELL SCREEN
11																	
12	48.67																
13		End of Borehole at 12.3 m															SAND
14																	
15																	
16																	
17																	
18																	
19																	
20																	

- △ Unconfined Compression Test
- Field Vane Test    ■ (Remolded)
- ◇ Fall Cone Test    ◆ (Remolded)
- ▽ Hand Penetrometer Test    ▣ Torvane

LOGGED BY:MM  
REVIEWED:GH





CLIENT ANACONDA MINING INC.  
PROJECT GOLDBORO SITEWIDE GEOTECHNICAL INVESTIGATION  
LOCATION GOLDBORO, NS N 293435.063 m E 5008094.125 m  
DATES (yyyy-mm-dd): BORING 2021-10-12 to 2021-10-15 WATER LEVEL 2.55m 2021-10-18

DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES				UNDRAINED SHEAR STRENGTH - kPa					WELL CONSTRUCTION DETAILS		
					TYPE	NUMBER	RECOVERY(mm) OR TCR %	N-VALUE OR RQD %	OTHER TESTS	10	20	30	40		50	
		Continued from Previous Page														
20		Dark grey, fine to medium grained, massive to poorly developed foliation GREYWACKE (continued...)			HQ	19	100%	95%								SAND BENTONITE SEAL SAND
21																
22																
23																
24																
25																
26																
27																
28																
29																
30	30.58	End of Borehole at 30.3 m														
31																
32																
33																
34																
35																
36																
37																
38																
39																
40																

- △ Unconfined Compression Test
- Field Vane Test      ■ (Remolded)
- ◇ Fall Cone Test      ◆ (Remolded)
- ▽ Hand Penetrometer Test      ▣ Torvane

LOGGED BY:MM  
REVIEWED:GH





CLIENT ANACONDA MINING INC.  
PROJECT GOLDBORO SITEWIDE GEOTECHNICAL INVESTIGATION  
LOCATION GOLDBORO, NS N 293389.771 m E 5007367.66 m  
DATES (yyyy-mm-dd): BORING 2021-10-3 to 2021-10-4 WATER LEVEL 0.43m 2021-10-7

DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES					UNDRAINED SHEAR STRENGTH - kPa					WELL CONSTRUCTION DETAILS	
					TYPE	NUMBER	RECOVERY(mm) OR TCR %	N-VALUE	OR RQD %	OTHER TESTS	10	20	30	40		50
		Continued from Previous Page														
20		Dark grey, fine to medium grained, massive to poorly developed foliation GREYWACKE (continued...)			HQ	16	100%	58%								
21					HQ	17	100%	61%								
22					HQ	18	100%	67%								
23					HQ	19	100%	59%								
24					HQ	20	99%	79%								
25					HQ	21	98%	81%								
26					HQ	22	100%	68%								
27																
28																
29																
30	45.00	End of Borehole at 30.1 m														
31																
32																
33																
34																
35																
36																
37																
38																
39																
40																

- △ Unconfined Compression Test
- Field Vane Test      ■ (Remolded)
- ◇ Fall Cone Test      ◆ (Remolded)
- ▽ Hand Penetrometer Test      ▣ Torvane

LOGGED BY:MM  
REVIEWED:GH



# RECORD OF BOREHOLE



**DRILL HOLE ID: MW46C  
BR-21-274**

**TOTAL DEPTH: 149.60 m  
N: 5007362.39 E: 293386.88  
ELEVATION: 57.90 m GEODETIC  
WATER LEVEL: 2.9 m**

**DATE STARTED: JUN 27, 2021  
DATE COMPLETED: JUN 30, 2021  
INCLINATION: -90°  
AZIMUTH: 000° COORD. SYS.: NAD83 MTM Zone 4**

**PROJECT NO.: 20-113-H  
CLIENT: ANACONDA MINING**

**PROJECT NAME: GOLDBORO PROJECT - SITEWIDE GEOTECHNICAL FIELD INVESTIGATION**

DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	DISCONTINUITY	DISCONTINUITY DATA										OTHER TESTS					
						RUN NO.	SH-SHEAR		CONT-CONTACT		RZ-BROKEN CORE /		RO-ROUGH		INFILL		q-cr-Quartz-Calcite		epi-Epidote		
							JS-JOINT	CL-CLEAVAGE	BD-BEDDING	FT-FAULT	RUBBLE ZONE	P-PLANAR	SL-SLICKENSIDED	cal-Calcite	gou-Gouge		hem-Hematite	ch-Chlorite	qz-Quartz	sph-Sulphides	bio-Biotite
STRUCTURE	TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX	WEATHERING INDEX	TYPE AND SURFACE DESCRIPTION	RMR 1976	WELL CONSTRUCTION DETAILS													
15		Light grey, fine to medium grained GREYWACKE with minor ARGILLITE interbeds up to 10m (continued...)				HQ5	100	84	1.7	5	1	BD, U, IN: cal	61								
16																					
17																					
18																					
19	38.9	Light grey, very fine grained ARGILLITE				HQ6	100	70	2.4	4	1	BD, U, IN: cal	52								
20	38.5	Light grey, fine to medium grained GREYWACKE																			
21																					
22						HQ7	98	85	1.7	5	1	JS, U, IN: cal	61								
23																					
24																					
25						HQ8	100	91	1.8	5	1	JS, U, IN: cal	54								
26																					
27																					
28						HQ9	100	96	1.1	5	1	JS, U, IN: cal	74								
29																					
30						HQ10	100	83	1.6	5	1	JS, U, IN: q-cr-qb	61								







# RECORD OF BOREHOLE



**DRILL HOLE ID: MW46C**  
**BR-21-274**

**TOTAL DEPTH:** 149.60 m  
**N:** 5007362.39 **E:** 293386.88  
**ELEVATION:** 57.90 m GEODETIC  
**WATER LEVEL:** 2.9 m

**DATE STARTED:** JUN 27, 2021  
**DATE COMPLETED:** JUN 30, 2021  
**INCLINATION:** -90°  
**AZIMUTH:** 000° **COORD. SYS.:** NAD83 MTM Zone 4

**PROJECT NO.:** 20-113-H  
**CLIENT:** ANACONDA MINING

**PROJECT NAME:** GOLDBORO PROJECT - SITEWIDE GEOTECHNICAL FIELD INVESTIGATION

DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY										DISCONTINUITY DATA			OTHER TESTS		
						SH-SHEAR JS-JOINT CL-CLEAVAGE VN-VEIN		CONT-CONTACT BD-BEDDING FT-FAULT FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE P-PLANAR U-UNDULATING			RO-ROUGH SL-SLICKENSIDED		cln-Clean cal-Calcite chl-Chlorite cly-Clay Minerals		q-cr-Quartz-Calcite gou-Gouge qtz-Quartz fes-Iron Staining			epi-Epidote hem-Hematite sph-Sulphides bio-Biotite	
						STRUCTURE	TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX	WEATHERING INDEX	TYPE AND SURFACE DESCRIPTION		RMR 1976	WELL CONSTRUCTION DETAILS						
60		Light grey, fine to medium grained GREYWACKE (continued...)																			
61	-3.1	Light grey, fine to very fine grained ARGILLITE with minor light grey, fine to medium grained GREYWACKE interbeds			HO 20		100	95	0.7	4	1	BD, U, IN: q-cr		69							
64					HO 21		100	98	0.9	4	1	BD, U, IN: sph		69							
67	-9.2	Light grey, fine to medium grained GREYWACKE			HO 22		100	98	0.7	4	1	BD, U, IN: sph		69							
70	-12.4	Light grey, fine to very fine grained ARGILLITE			HO 23		100	97	0.5	5	1	BD, U, IN: cln		74							
72	-14.3	Light grey, fine to medium grained GREYWACKE			HO 24		100	97	0.6	5	1	BD, U, IN: q-cr		74							
74	-15.9	Dark gre.y, very fine grained ARGILLITE with biotite on S1 up to 3%			HO 25		100	98	0.4	4	1	BD, U, IN: sph		69							



# RECORD OF BOREHOLE



**DRILL HOLE ID: MW46C  
BR-21-274**

**TOTAL DEPTH: 149.60 m  
N: 5007362.39 E: 293386.88  
ELEVATION: 57.90 m GEODETIC  
WATER LEVEL: 2.9 m**

**DATE STARTED: JUN 27, 2021  
DATE COMPLETED: JUN 30, 2021  
INCLINATION: -90°  
AZIMUTH: 000° COORD. SYS.: NAD83 MTM Zone 4**

**PROJECT NO.: 20-113-H  
CLIENT: ANACONDA MINING**

**PROJECT NAME: GOLDBORO PROJECT - SITEWIDE GEOTECHNICAL FIELD INVESTIGATION**

DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY										DISCONTINUITY DATA		OTHER TESTS		
						SH-SHEAR JS-JOINT CL-CLEAVAGE VN-VEIN		CONT-CONTACT BD-BEDDING FT-FAULT FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE P-PLANAR U-UNDULATING		RO-ROUGH SL-SLICKENSIDED		ZNF-LL		q-cr-Quartz-Calcite gou-Gouge qtz-Quartz fes-Iron Staining			epi-Epidote hem-Hematite sph-Sulphides bio-Biotite	
						STRUCTURE	TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX	WEATHERING INDEX	TYPE AND SURFACE DESCRIPTION		RMR 1976	WELL CONSTRUCTION DETAILS					
90		Light grey, fine to medium grained GREYWACKE (continued...)			HO 30		98	86	1.3	5	1	BD, U, IN: q-cr-b	71							
92	-33.9	Light grey, fine to very fine grained ARGILLITE																		
92	-34.6	Light grey, fine to medium grained GREYWACKE																		
93					HO 31		99	99	0.3	5	1	BD, U, IN: q-cr-b	74							
94																				
95																				
96																				
97					HO 32		98	97	0.8	4	1	BD, U, IN: q-cr-b	69							
98																				
99																				
100					HO 33		100	93	1.3	5	1	JS, U, IN: q-cr-b	74							
101																				
102																				
103					HO 34		99	96	0.7	5	1	JS, U, IN: q-cr-b	74							
104																				
105					HO 35		100	97	0.9	5	1	JS, U, IN: q-cr-b	74							



# RECORD OF BOREHOLE



**DRILL HOLE ID: MW46C  
BR-21-274**

**TOTAL DEPTH: 149.60 m  
N: 5007362.39 E: 293386.88  
ELEVATION: 57.90 m GEODETIC  
WATER LEVEL: 2.9 m**

**DATE STARTED: JUN 27, 2021  
DATE COMPLETED: JUN 30, 2021  
INCLINATION: -90°  
AZIMUTH: 000° COORD. SYS.: NAD83 MTM Zone 4**

**PROJECT NO.: 20-113-H  
CLIENT: ANACONDA MINING**

**PROJECT NAME: GOLDBORO PROJECT - SITEWIDE GEOTECHNICAL FIELD INVESTIGATION**

DEPTH (m)	ELEVATION (m)	LITHOLOGICAL DESCRIPTION	STRATA PLOT	WATER LEVEL	RUN NO.	DISCONTINUITY DATA										RMR 1976	WELL CONSTRUCTION DETAILS	OTHER TESTS				
						SH-SHEAR JS-JOINT CL-CLEAVAGE VN-VEIN		CONT-CONTACT BD-BEDDING FT-FAULT FO-FOLIATION		RZ-BROKEN CORE / RUBBLE ZONE P-PLANAR U-UNDULATING		RO-ROUGH SL-SLICKENSIDED		ZNF-CLN Clean cal-Calcite chl-Chlorite cly-Clay Minerals					q-cr-Quartz Calcite gou-Gouge qtz-Quartz fes-Iron Staining		epi-Epidote hem-Hematite sph-Sulphides bio-Biotite	
						STRUCTURE	TOTAL CORE %	R.Q.D. %	FRACT. INDEX PER 0.3 m	ROCK STRENGTH INDEX R1 R2 R3 R4	WEATHERING INDEX W1 W2	TYPE AND SURFACE DESCRIPTION										
120		Light grey, fine to medium grained GREYWACKE (continued...)																				
121			HQ 40	100	98	0.8	5	1	CL, U, IN: q-cr	74												
122																						
123																						
124				HQ 41	100	91	1.3	5	1	JS, U, IN: q-cr	74											
125																						
126																						
127			HQ 42	97	94	1.3	5	1	JS, U, IN: q-cr	64												
128																						
129																						
130			HQ 43	100	93	1.4	5	1	JS, U, IN: sph	64												
131																						
132																						
133			HQ 44	98	95	1.1	5	1	JS, U, IN: sph	64												
134																						
135			HQ 45	100	89	1.7	5	1	JS, U, IN: sph	61												









CLIENT ANACONDA MINING INC.  
PROJECT GOLDBORO SITEWIDE GEOTECHNICAL INVESTIGATION  
LOCATION GOLDBORO, NS N 294411.87 m E 5009226.295 m  
DATES (yyyy-mm-dd): BORING 2021-11-20 to 2021-11-24 WATER LEVEL 0.15m 2021-12-3

DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES				UNDRAINED SHEAR STRENGTH - kPa					WELL CONSTRUCTION DETAILS				
					TYPE	NUMBER	RECOVERY(mm) OR TCR %	N-VALUE OR RQD %	OTHER TESTS	10	20	30	40		50			
		Continued from Previous Page																
20		Dark grey, fine to medium grained, massive to poorly developed foliation, GREYWACKE with minor beds of ARGILLITE (continued...)			HQ	18	100%	97%										
21					HQ	19	100%	88%										
22					HQ	20	93%	61%										
23					HQ	21	100%	69%										
24					HQ	22	100%	90%										
25					HQ	23	100%	95%										
26					HQ	24	100%	97%										
27																		
28																		
29																		
30	52.28	End of Borehole at 30.5 m																
31																		
32																		
33																		
34																		
35																		
36																		
37																		
38																		
39																		
40																		

- △ Unconfined Compression Test
- Field Vane Test    ■ (Remolded)
- ◇ Fall Cone Test    ◆ (Remolded)
- ▽ Hand Penetrometer Test    ▣ Torvane

LOGGED BY:MM  
REVIEWED:GH

CLIENT ANACONDA MINING INC.  
PROJECT GOLDBORO SITEWIDE GEOTECHNICAL INVESTIGATION  
LOCATION GOLDBORO, NS N 294464.604 m E 5008273.369 m  
DATES (yyyy-mm-dd): BORING 2021-10-31 to 2021-10-31 WATER LEVEL 0.6m 2021-11-5

DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES					UNDRAINED SHEAR STRENGTH - kPa					WELL CONSTRUCTION DETAILS							
					TYPE	NUMBER	RECOVERY (mm) OR TCR %	N-VALUE OR RQD %	OTHER TESTS	10	20	30	40	50		60	70	80				
0	57.19	NOTE: BOREHOLE DRILLED ON SAME PAD AS MW54B. REFER TO MW54B LOG FOR DETAILED SOIL AND ROCK INFORMATION								WATER CONTENT & ATTERBERG LIMITS					WELL CAP - SU = 0.75 m PVC CASING, BENTONITE CHIPS SAND WELL SCREEN							
1																						
2																						
3																						
4																						
5	52.39	End of Borehole at 4.8 m																				
6																						
7																						
8																						
9																						
10																						
11																						
12																						
13																						
14																						
15																						
16																						
17																						
18																						
19																						
20																						

- △ Unconfined Compression Test
- Field Vane Test    ■ (Remolded)
- ◇ Fall Cone Test    ◆ (Remolded)
- ▽ Hand Penetrometer Test    ▣ Torvane

LOGGED BY:MM  
REVIEWED:GH



CLIENT ANACONDA MINING INC.  
PROJECT GOLDBORO SITEWIDE GEOTECHNICAL INVESTIGATION  
LOCATION GOLDBORO, NS N 294464.687 m E 5008274.727 m  
DATES (yyyy-mm-dd): BORING 2021-10-28 to 2021-10-31 WATER LEVEL 0.75m 2021-11-5

DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES					UNDRAINED SHEAR STRENGTH - kPa					WELL CONSTRUCTION DETAILS		
					TYPE	NUMBER	RECOVERY(mm) OR TCR %	N-VALUE	OR RQD %	OTHER TESTS	10	20	30	40		50	
		Continued from Previous Page															
20		Dark grey, fine to medium grained, massive to poorly developed foliation, GREYWACKE with minor beds of ARGILLITE (continued...)			HQ	18	95%	85%									
21					HQ	19	100%	95%									
22					HQ	20	96%	96%									
23					HQ	21	100%	100%									
24					HQ	22	100%	83%									
25					HQ	23	95%	93%									
26					HQ	24	95%	79%									
27																	
28																	
29																	
30	26.93	End of Borehole at 30.3 m															
31																	
32																	
33																	
34																	
35																	
36																	
37																	
38																	
39																	
40																	

- △ Unconfined Compression Test
- Field Vane Test    ■ (Remolded)
- ◇ Fall Cone Test    ◆ (Remolded)
- ▽ Hand Penetrometer Test    ▣ Torvane

LOGGED BY:AG/DC  
REVIEWED:GH

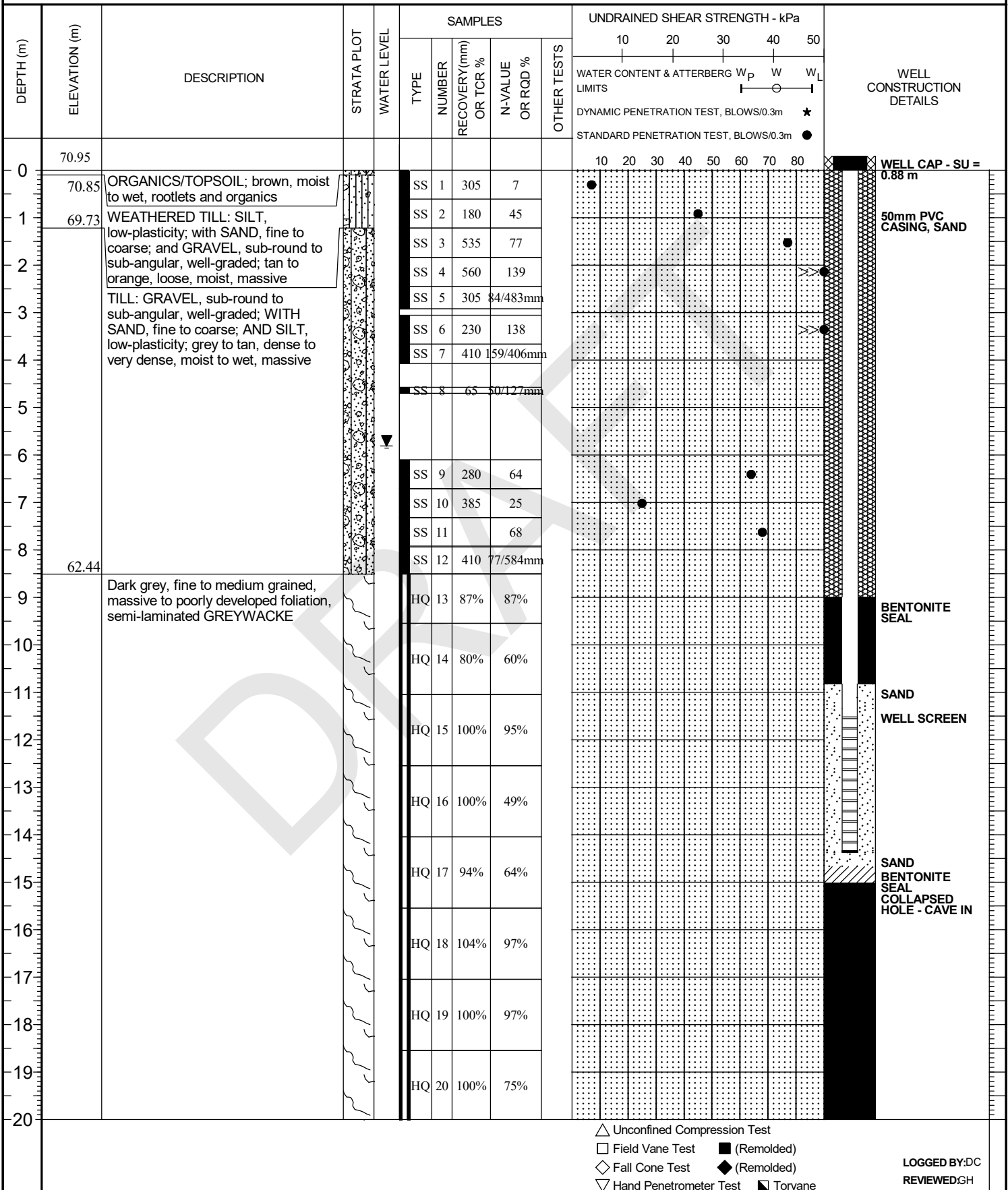
CLIENT ANACONDA MINING INC.  
PROJECT GOLDBORO SITEWIDE GEOTECHNICAL INVESTIGATION  
LOCATION GOLDBORO, NS N 294773.043 m E 5008119.795 m  
DATES (yyyy-mm-dd): BORING 2021-11-6 to 2021-11-6 WATER LEVEL 1.39m 2021-12-3

DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES					UNDRAINED SHEAR STRENGTH - kPa					WELL CONSTRUCTION DETAILS					
					TYPE	NUMBER	RECOVERY(mm) OR TCR %	N-VALUE OR RQD %	OTHER TESTS	10	20	30	40	50		60	70	80		
0	70.98	NOTE: BOREHOLE DRILLED ON SAME PAD AS MW55B. REFER TO MW55B LOG FOR DETAILED SOIL AND ROCK INFORMATION																WELL CAP - SU = 0.89 m		
1																				50mm PVC CASING, SAND
2																				
3																				
4																				
5																				
6																				
7																				
8	63.36	End of Borehole at 7.6 m																		
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17																				
18																				
19																				
20																				

- △ Unconfined Compression Test
- Field Vane Test    ■ (Remolded)
- ◇ Fall Cone Test    ◆ (Remolded)
- ▽ Hand Penetrometer Test    ▣ Torvane

LOGGED BY:JT  
REVIEWED:GH

CLIENT ANACONDA MINING INC.  
PROJECT GOLDBORO SITEWIDE GEOTECHNICAL INVESTIGATION  
LOCATION GOLDBORO, NS N 294771.139 m E 5008117.86 m  
DATES (yyyy-mm-dd): BORING 2021-11-2 to 2021-11-4 WATER LEVEL 5.72m 2021-11-4



△ Unconfined Compression Test  
□ Field Vane Test    ■ (Remolded)  
◇ Fall Cone Test    ◆ (Remolded)  
▽ Hand Penetrometer Test    ▣ Torvane

LOGGED BY:DC  
REVIEWED:GH

CLIENT ANACONDA MINING INC.  
PROJECT GOLDBORO SITEWIDE GEOTECHNICAL INVESTIGATION  
LOCATION GOLDBORO, NS N 294771.139 m E 5008117.86 m  
DATES (yyyy-mm-dd): BORING 2021-11-2 to 2021-11-4 WATER LEVEL 5.72m 2021-11-4

DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES				OTHER TESTS	UNDRAINED SHEAR STRENGTH - kPa					WELL CONSTRUCTION DETAILS				
					TYPE	NUMBER	RECOVERY(mm) OR TCR %	N-VALUE OR RQD %		10	20	30	40	50					
		Continued from Previous Page																	
20		Dark grey, fine to medium grained, massive to poorly developed foliation, semi-laminated GREYWACKE (continued...)			HQ	21	92%	83%											
21					HQ	22	100%	91%											
22					HQ	23	100%	88%											
23					HQ	24	97%	91%											
24					HQ	25	98%	97%											
25					HQ	26	95%	80%											
26																			
27	41.91	End of Borehole at 29.0 m																	
28																			
29																			
30																			
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

- △ Unconfined Compression Test
- Field Vane Test    ■ (Remolded)
- ◇ Fall Cone Test    ◆ (Remolded)
- ▽ Hand Penetrometer Test    ▣ Torvane

LOGGED BY:DC  
REVIEWED:GH



CLIENT ANACONDA MINING INC.  
PROJECT GOLDBORO SITEWIDE GEOTECHNICAL INVESTIGATION  
LOCATION GOLDBORO, NS N 295341.907 m E 5008026.862 m  
DATES (yyyy-mm-dd): BORING 2021-11-21 to 2021-11-21 WATER LEVEL 1.37m 2021-12-3

DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES					UNDRAINED SHEAR STRENGTH - kPa					WELL CONSTRUCTION DETAILS
					TYPE	NUMBER	RECOVERY (mm) OR TCR %	N-VALUE OR RQD %	OTHER TESTS	10	20	30	40	50	
0	74.60	OVERBURDEN NOTE: BOREHOLE DRILLED ON SAME PAD AS MW56B. REFER TO MW56B LOG FOR DETAILED SOIL AND ROCK INFORMATION GREYWACKE								WATER CONTENT & ATTERBERG LIMITS W <sub>p</sub> W    W <sub>L</sub>					WELL CAP - SU = 1 m
1	73.84									DYNAMIC PENETRATION TEST, BLOWS/0.3m ★					
2															50mm PVC CASING, BENTONITE CHIPS  BENTONITE SEAL  SAND  WELL SCREEN
3															
4															
5															
6															
7															
8	66.78	End of Borehole at 7.8 m													
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

- △ Unconfined Compression Test
- Field Vane Test    ■ (Remolded)
- ◇ Fall Cone Test    ◆ (Remolded)
- ▽ Hand Penetrometer Test    ▣ Torvane

LOGGED BY: JT  
REVIEWED: GH



CLIENT ANACONDA MINING INC.  
PROJECT GOLDBORO SITEWIDE GEOTECHNICAL INVESTIGATION  
LOCATION GOLDBORO, NS N 295335.791 m E 5008020.819 m  
DATES (yyyy-mm-dd): BORING 2021-11-7 to 2021-11-11 WATER LEVEL 1.79m 2021-12-3

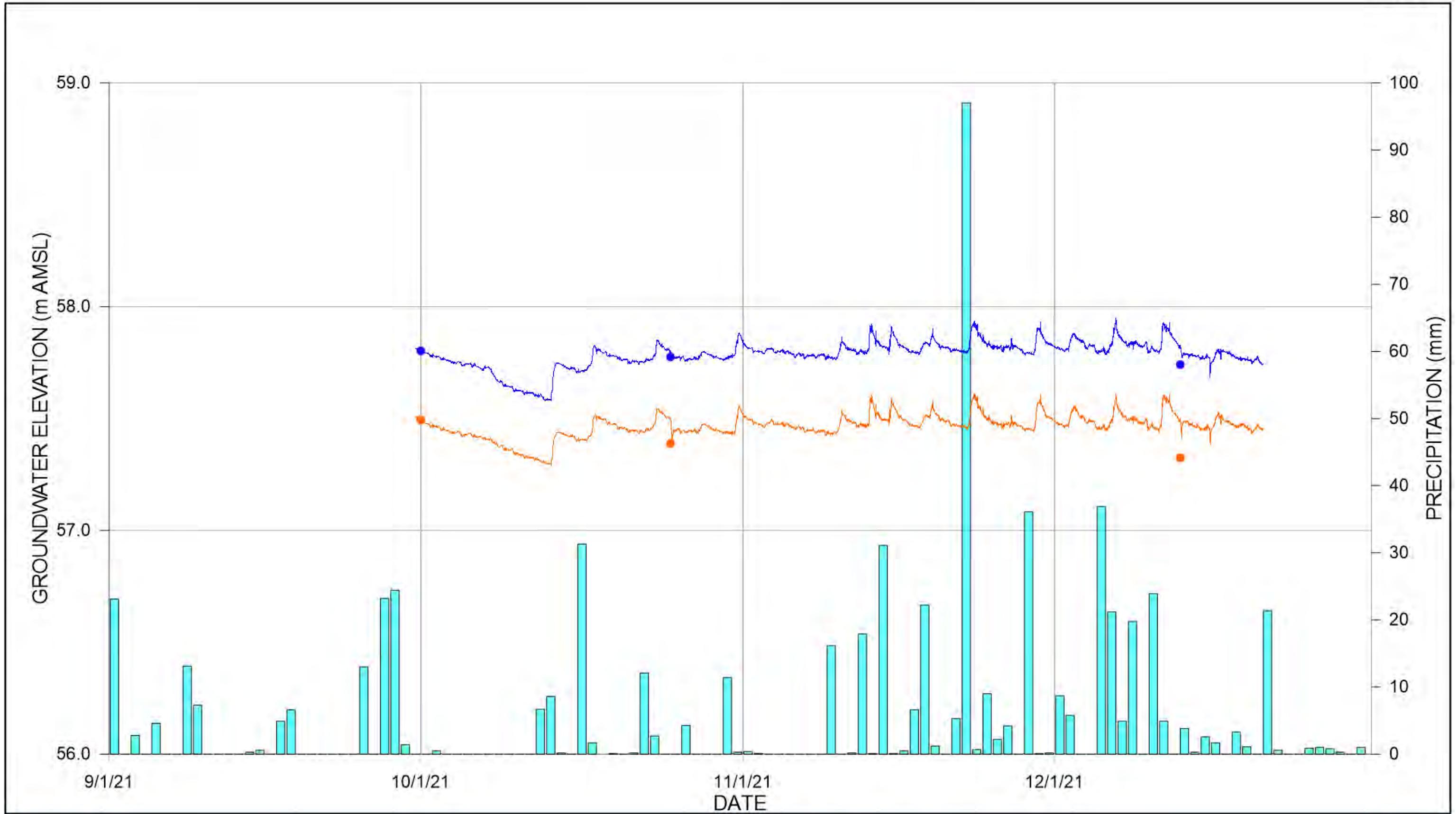
DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES					UNDRAINED SHEAR STRENGTH - kPa					WELL CONSTRUCTION DETAILS		
					TYPE	NUMBER	RECOVERY(mm) OR TCR %	N-VALUE OR RQD %	OTHER TESTS	10	20	30	40	50		60	70
		Continued from Previous Page															
20		Dark grey, fine to medium grained, massive to poorly developed foliation, GREYWACKE with minor beds of ARGILLITE (continued...)			HQ	16	100%	97%									
21			HQ	17	98%	78%											
22			HQ	18	91%	91%											
23			HQ	19	100%	98%											
24			HQ	20	100%	85%											
25			HQ	21	100%	47%											
26			HQ	22	100%	98%											
27																	
28																	
29																	
30	44.05	End of Borehole at 30.2 m															
31																	
32																	
33																	
34																	
35																	
36																	
37																	
38																	
39																	
40																	

- △ Unconfined Compression Test
- Field Vane Test    ■ (Remolded)
- ◇ Fall Cone Test    ◆ (Remolded)
- ▽ Hand Penetrometer Test    ▣ Torvane

LOGGED BY:MM  
REVIEWED:GH

# **Attachment 2**

## **Groundwater Level Hydrographs**



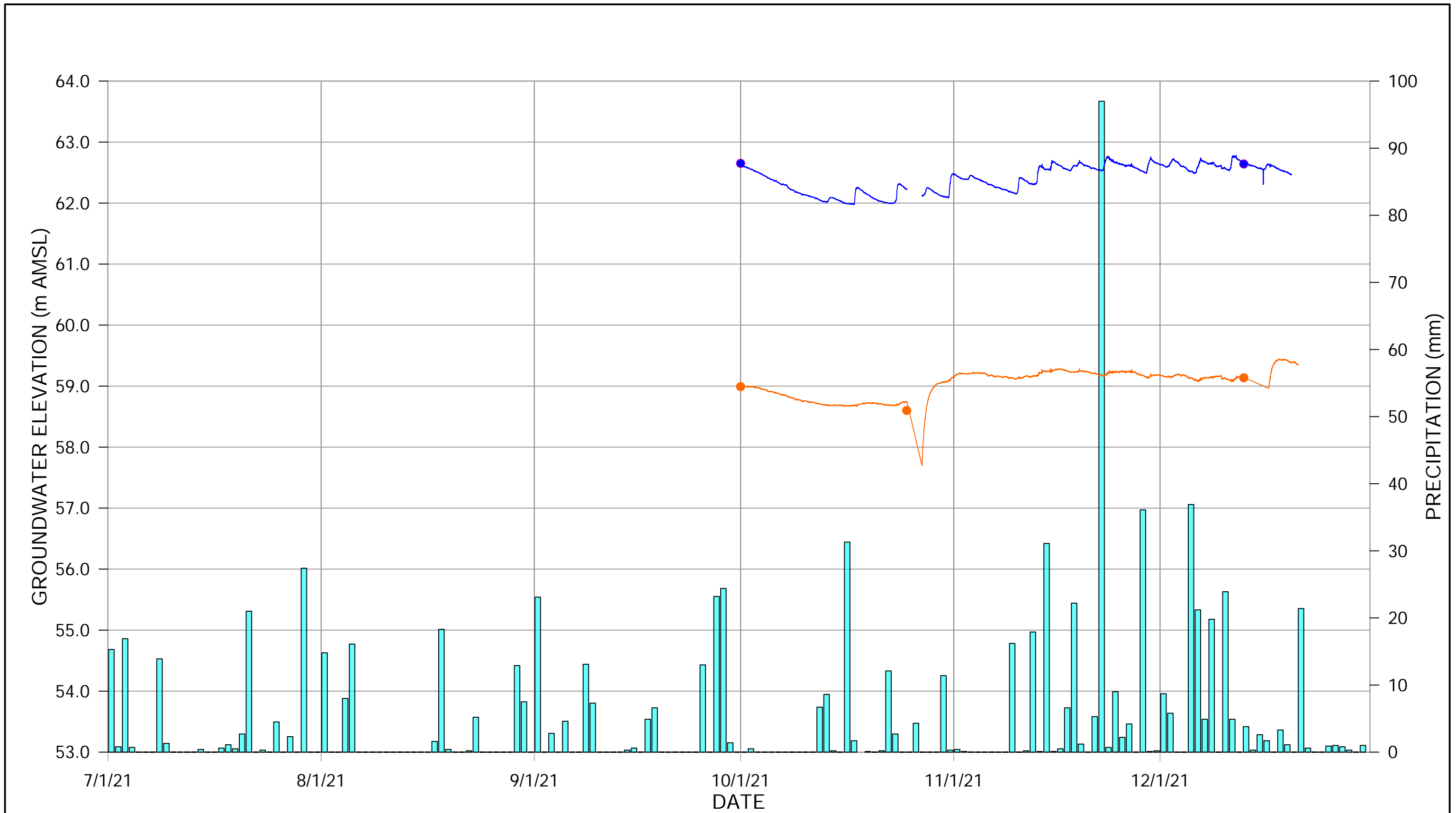
Legend  
— MW5-A — MW5-B █ PRECIPITATION (mm)



ANACONDA MINING INC.  
GOLDBORO GOLD PROJECT  
GOLDBORO, NOVA SCOTIA  
MW5 WELL NEST  
MEASURED GROUNDWATER ELEVATIONS

11222385  
Jan. 10, 2021

FIGURE 2.1



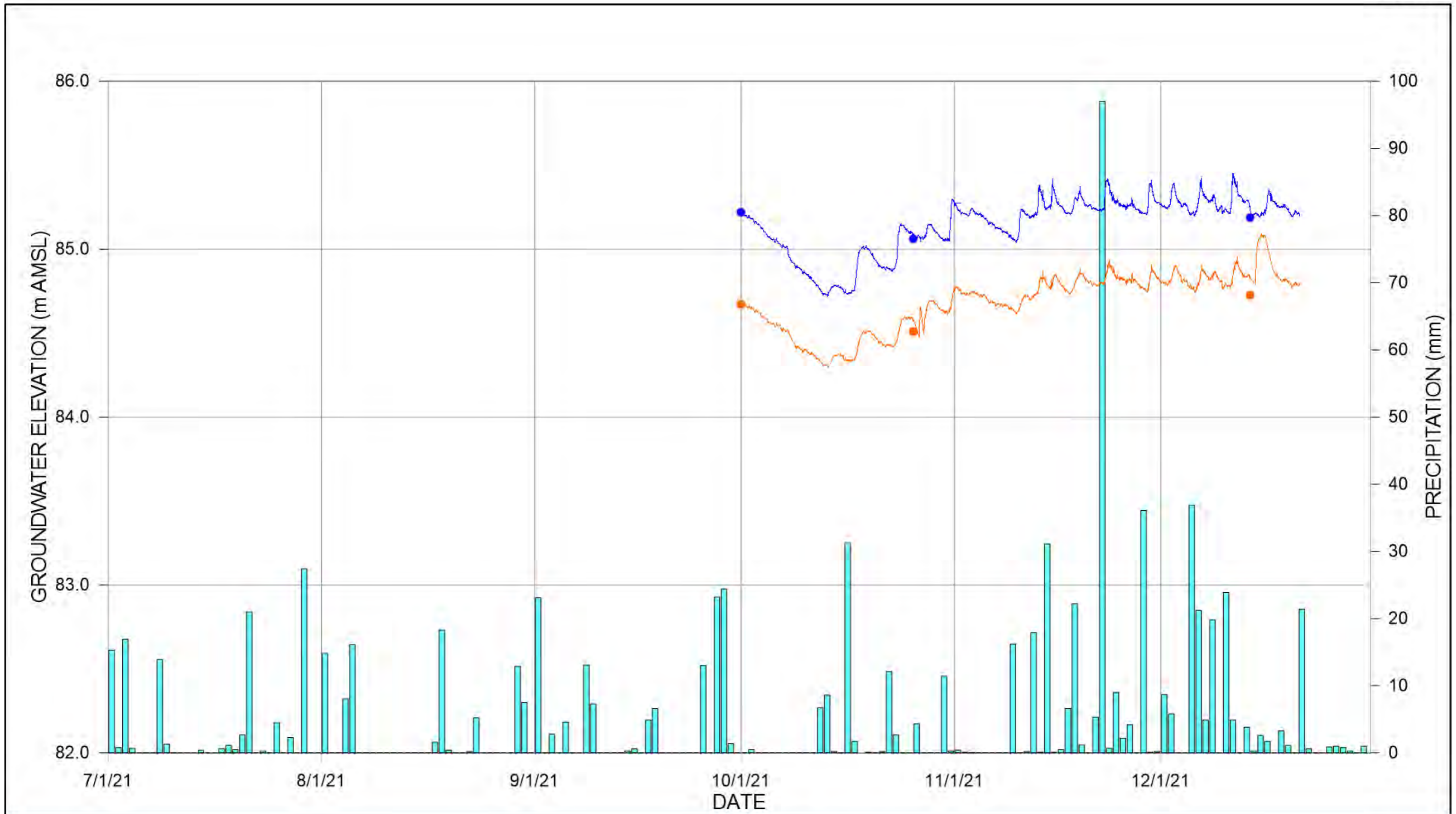
Legend  
— MW6-A — MW6-B █ PRECIPITATION (mm)



ANACONDA MINING INC.  
GOLDBORO GOLD PROJECT  
GOLDBORO, NOVA SCOTIA  
MW6 WELL NEST  
MEASURED GROUNDWATER ELEVATIONS

11222385  
Jan. 10, 2022

FIGURE 2.2



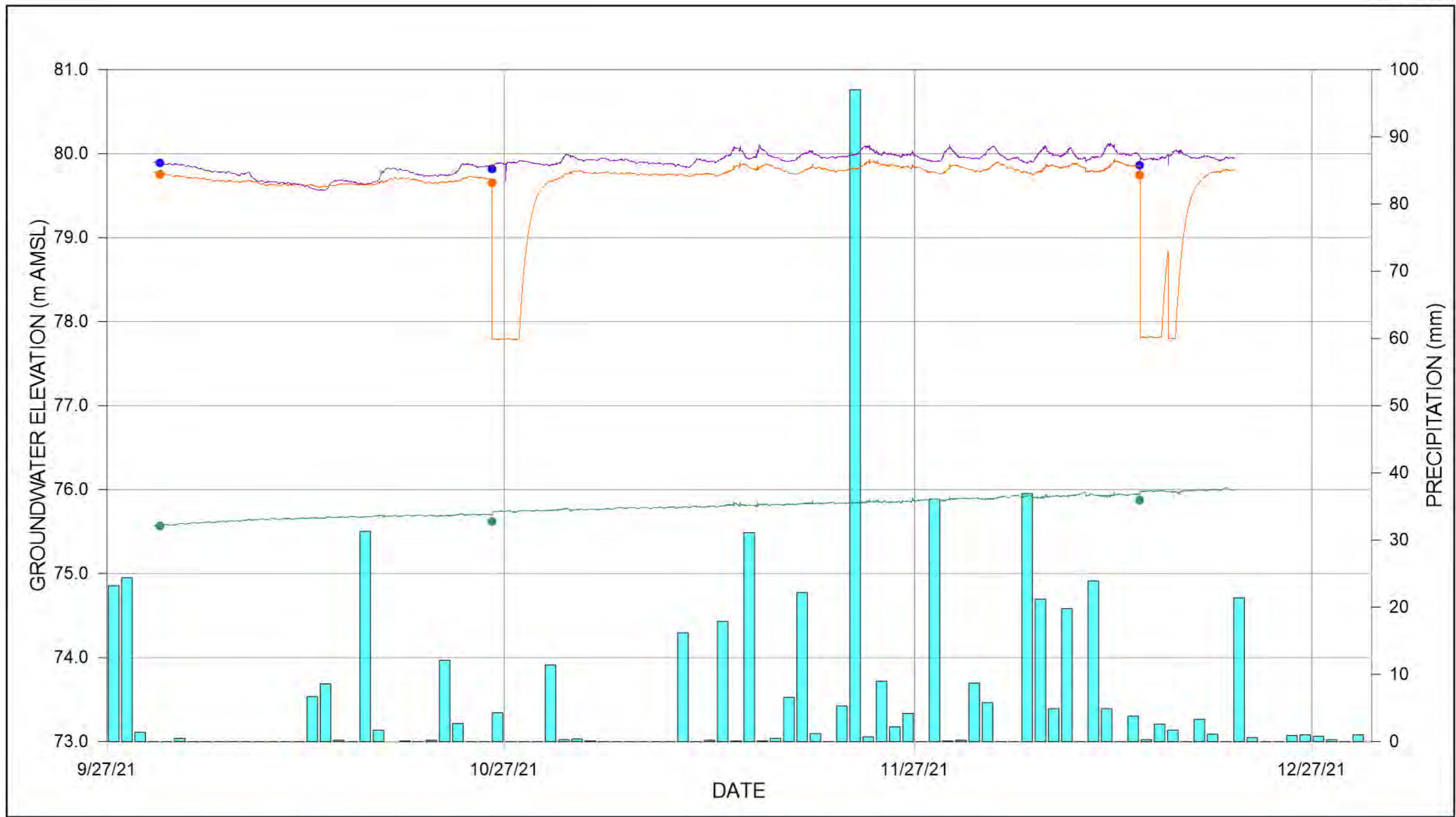
Legend  
— MW7-A — MW7-B █ PRECIPITATION (mm)



ANACONDA MINING INC.  
GOLDBORO GOLD PROJECT  
GOLDBORO, NOVA SCOTIA  
MW7 WELL NEST  
MEASURED GROUNDWATER ELEVATIONS

11222385  
Jan. 11, 2022

FIGURE 2.3



Legend  
— MW15-A  
— MW15-B  
— MW15-C  
■ PRECIPITATION (mm)



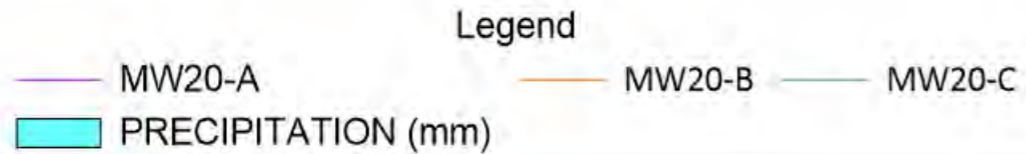
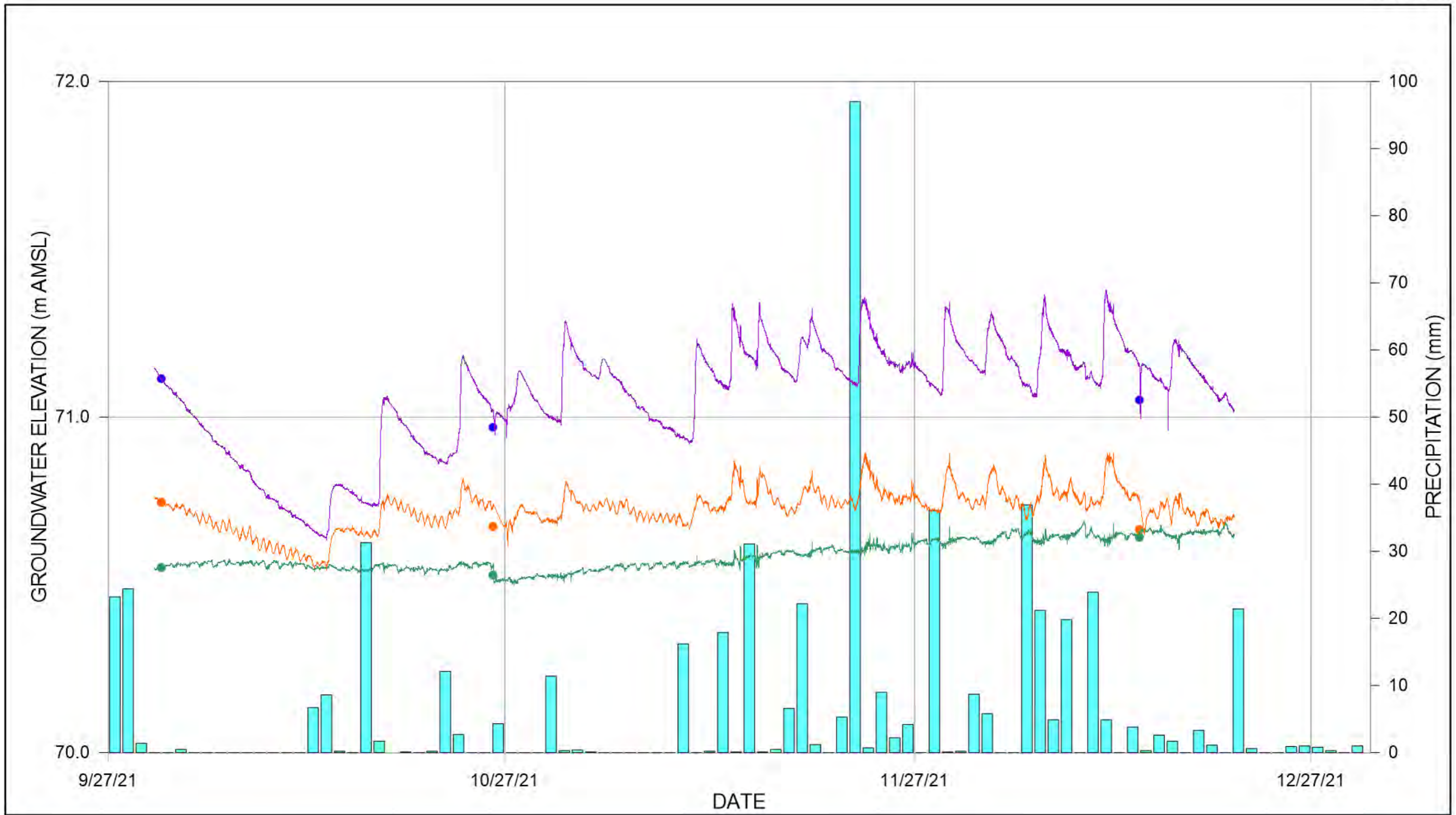
ANACONDA MINING INC.  
GOLDBORO GOLD PROJECT  
GOLDBORO, NOVA SCOTIA

MW15 WELL NEST  
MEASURED GROUNDWATER ELEVATIONS

11222385  
Jan. 11, 2022

FIGURE 2.4

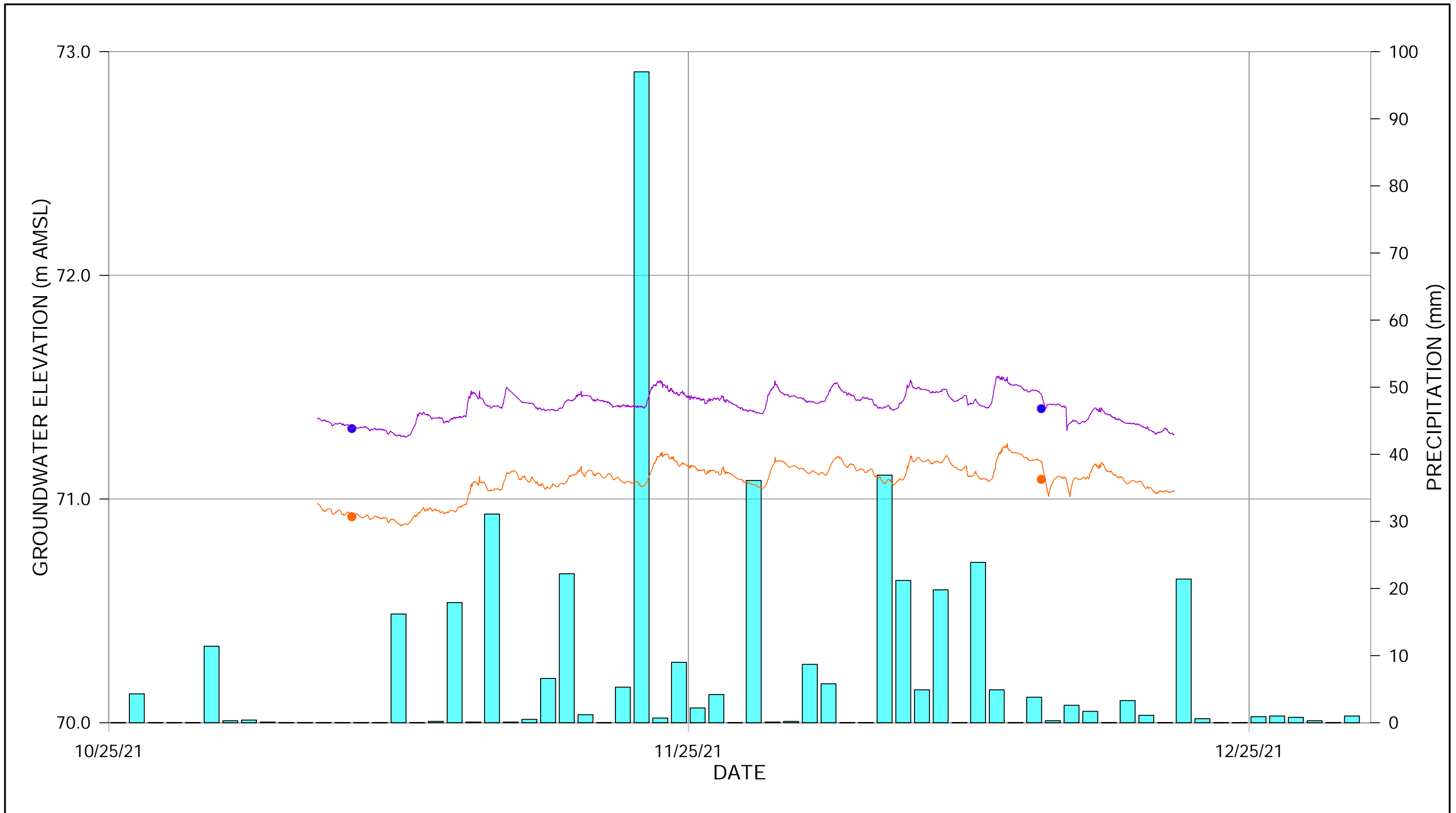




ANACONDA MINING INC.  
GOLDBORO GOLD PROJECT  
GOLDBORO, NOVA SCOTIA  
MW20 WELL NEST  
MEASURED GROUNDWATER ELEVATIONS

11222385  
Jan. 11, 2022

FIGURE 2.5



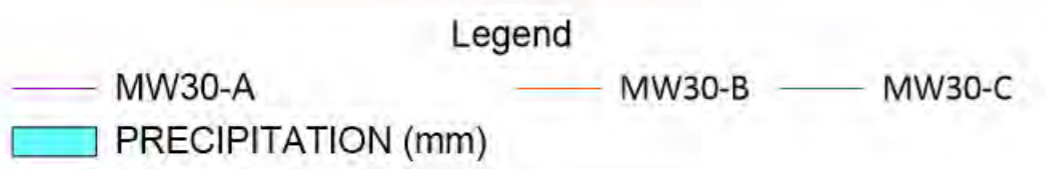
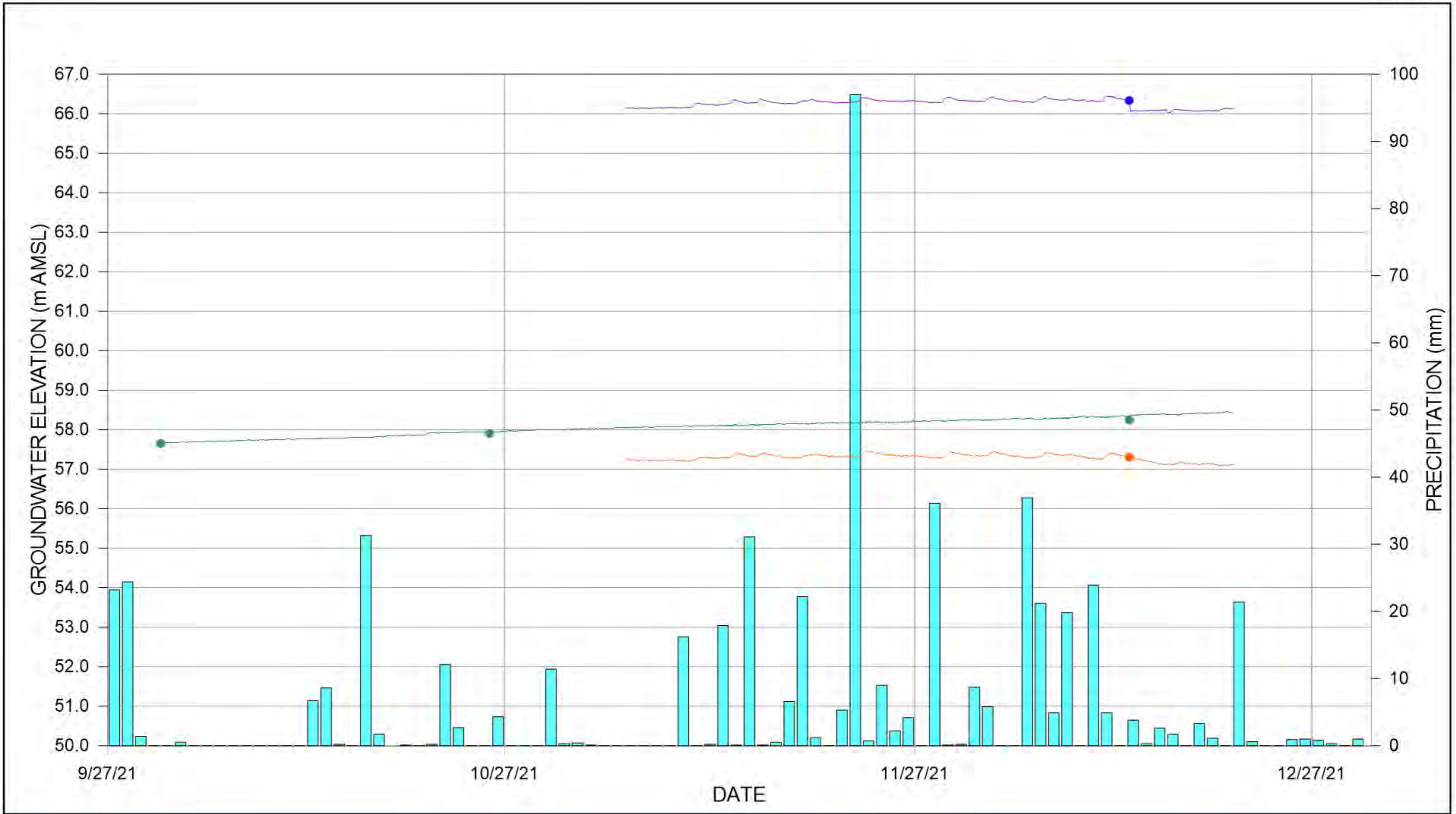
Legend  
— MW26-A — MW26-B █ PRECIPITATION (mm)



ANACONDA MINING INC.  
GOLDBORO GOLD PROJECT  
GOLDBORO, NOVA SCOTIA  
MW26 WELL NEST  
MEASURED GROUNDWATER ELEVATIONS

11222385  
Jan. 11, 2022

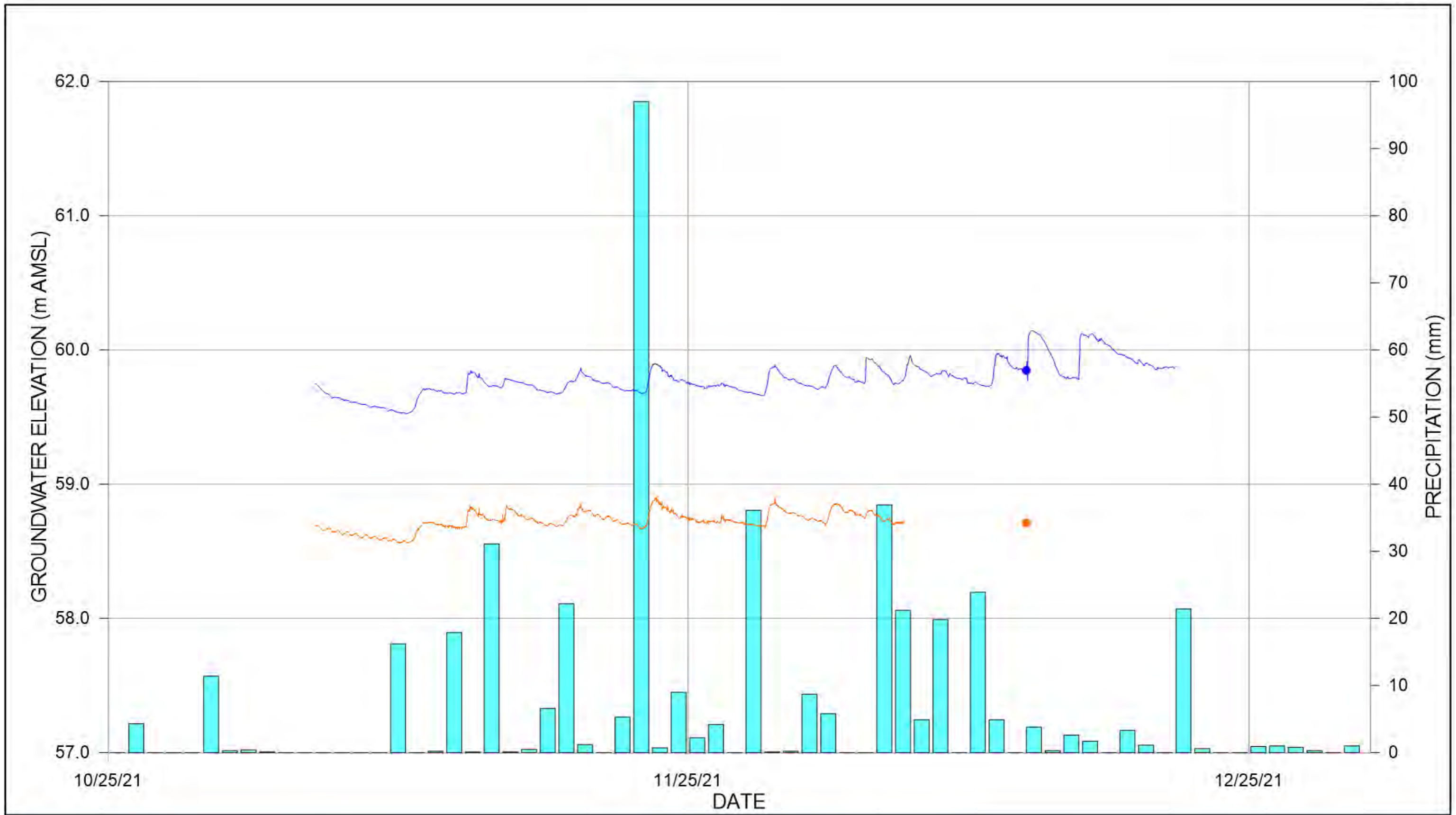
FIGURE 2.6



ANACONDA MINING INC.  
GOLDBORO GOLD PROJECT  
GOLDBORO, NOVA SCOTIA  
MW30 WELL NEST  
MEASURED GROUNDWATER ELEVATIONS

11222385  
Jan. 11, 2022

FIGURE 2.7



Legend  
— MW43-A — MW43-B █ PRECIPITATION (mm)



ANACONDA MINING INC.  
GOLDBORO GOLD PROJECT  
GOLDBORO, NOVA SCOTIA  
MW43 WELL NEST  
MEASURED GROUNDWATER ELEVATIONS

11222385  
Jan. 11, 2022

FIGURE 2.8



# **Attachment 3**

**Packer Test Analysis Sheets**

**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

Testing depth		Depth to rock = 1.58 m		Interval Number: 1					
Z top (H) = 19.81 m		Water Level:		Project Number: 11222385					
Z bottom = 22.59 m		depth (hw) = 4.62 m		Test Hole: MW1B					
				Test Date/Time: 11/17/21					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 2.78 m									
Height of gauge above ground: 0.73									
Gravity head: H0 = h1 + hw = 5.35 m									
Test no	Pressure P (kPa)	Time t (min)	Reading B (litre)			Flow Q (l/min)	Absorption A (l/min-m)	Pressure Gauge (psi)	Lugeon Value (Lu)
1	69 (10.0 psi)	0	9.5			0.0	0.00		56.3
		1	23.5			14.0	5.04	10.0	
		2	34.4	11.0	3.95	10.0			
		3	45.2	10.8	3.88	10.0			
		4	56.0	10.8	3.88	10.0			
		5	66.8	10.8	3.88	10.0			
		6	77.6	10.8	3.88	10.0			
		7	88.4	10.8	3.88	10.0			
		8	99.2	10.8	3.88	10.0			
		9	110.0	10.8	3.88	10.0			
10	120.8	10.8	3.88	10.0					
2	103 (15.0 psi)	0	153.3	0.0	0.00		45.9		
		1	166.6	13.2	4.77	15.0			
		2	181.1	14.6	5.24	15.0			
		3	194.4	13.2	4.77	15.0			
		4	207.1	12.7	4.56	15.0			
		5	220.1	13.1	4.70	15.0			
		6	232.6	12.5	4.49	15.0			
		7	246.1	13.4	4.83	15.0			
		8	259.7	13.6	4.90	15.0			
		9	273.3	13.6	4.90	15.0			
10	286.9	13.6	4.90	15.0					
3	138 (20.0 psi)	0	310.4	0.0	0.00		37.0		
		1	326.9	16.5	5.92	20.0			
		2	342.4	15.5	5.58	20.0			
		3	357.5	15.1	5.45	20.0			
		4	372.3	14.8	5.31	20.0			
		5	386.5	14.2	5.11	20.0			
		6	400.7	14.2	5.11	20.0			
		7	414.9	14.2	5.11	20.0			
		8	429.1	14.2	5.11	20.0			
		9							
10									
4	103 (15.0 psi)	0	444.8	0.0	0.00		39.5		
		1	456.1	11.4	4.08	15.0			
		2	467.5	11.4	4.08	15.0			
		3	478.9	11.4	4.08	15.0			
		4	490.2	11.4	4.08	15.0			
		5	501.6	11.4	4.08	15.0			
		6	512.9	11.4	4.08	15.0			
		7	524.3	11.4	4.08	15.0			
		8							
		9							
10									
5	69 (10.0 psi)	0	535.6	0.0	0.00		47.7		
		1	544.9	9.3	3.34	10.0			
		2	554.0	9.1	3.27	10.0			
		3	562.9	8.9	3.20	10.0			
		4	572.2	9.3	3.34	10.0			
		5	581.2	9.1	3.27	10.0			
		6	590.3	9.1	3.27	10.0			
		7	599.4	9.1	3.27	10.0			
		8	608.5	9.1	3.27	10.0			
		9	618.0	9.5	3.40	10.0			
10									
<b>Calculations</b>									
Maximum testing pressure: Pmax = 25H (kPa)				<b>Calculations</b> Maximum testing pressure: Pmax = 25H (kPa) kPa in psi, multiplied by 0.14 psi in kPa, multiplied by 6.9 Q = del B / del t A = Q / Zbottom - Ztop Lu = (avg. A x 1000) / P Lugeon Value used for calc Lu = 37.0 Corresponding pressure P (kPa) = 138					
				<b>Isotropic Hydraulic Conductivity:</b>					
				Equation (after Bliss and Ruston, 1984): $k = (Q / (2 \times \pi \times L \times h)) \times \ln (L / r)$  <b>k = 2.82E-04 cm/s</b>					
				Interpreted Lugeon pattern (after Hously, 1976, and Quinozes, 2010) <b>TURBULENT</b>					
Notes:									
Calculations by: Amir Niazi									
				Verified by: Brad Trytten, P.Geo.					

**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

Testing depth		Depth to rock = 1.58 m		Interval Number: 2					
Z top (H) = 9.32 m		Water Level:		Project Number: 11222385					
Z bottom = 12.10 m		depth (hw) = 4.62 m		Test Hole: MW1B					
				Test Date/Time: 11/17/21					
Water Pressure Test				Graphics					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 2.78 m									
Height of gauge above ground: 0.73									
Gravity head: H0 = h1 + hw = 5.35 m									
Test no	Pressure P (kPa)	Time t (min)	Reading B (litre)	Flow Q (l/min)	Absorption A (l/min-m)	Pressure Gauge (psi)	Lugeon Value (Lu)		
1	48 (7.0 psi)	0	24.6	0.0	0.00		15.0		
		1	28.4	3.8	1.38	7.0			
		2	31.0	2.6	0.94	7.0			
		3	33.5	2.5	0.89	7.0			
		4	35.8	2.3	0.82	7.0			
		5	37.9	2.1	0.75	7.0			
		6	39.9	2.1	0.75	7.0			
		7	41.8	1.9	0.68	7.0			
		8	43.7	1.9	0.68	7.0			
		9	45.6	1.9	0.68	7.0			
		10	47.5	1.9	0.68	7.0			
2	69 (10.0 psi)	0	51.1	0.0	0.00		8.9		
		1	53.2	2.1	0.75	10.0			
		2	55.1	1.9	0.68	10.0			
		3	56.8	1.7	0.61	10.0			
		4	58.5	1.7	0.61	10.0			
		5	60.2	1.7	0.61	10.0			
		6	61.9	1.7	0.61	10.0			
		7	63.6	1.7	0.61	10.0			
		8						<p align="center"><b>Calculations</b></p> <p>Maximum testing pressure: Pmax = 25H (kPa) kPa in psi, multiplied by 0.14 psi in kPa, multiplied by 6.9 Q = del B / del t A = Q / Zbottom - Ztop Lu = (avg. A x 1000) / P Lugeon Value used for calc Lu = 6.6 Corresponding pressure P (kPa) = 103</p> <p align="center"><b>Isotropic Hydraulic Conductivity:</b></p> <p>Equation (after Bliss and Ruston, 1984): k = (Q / (2 x pi x L x h)) x ln (L / r)</p> <p align="center"><b>k = 4.59E-05 cm/s</b></p> <p>Interpreted Lugeon pattern (after Houlby, 1976, and Quinozes, 2010) <b>TURBULENT</b></p>	
3	103 (15.0 psi)	0	66.2	0.0	0.00		6.6		
		1	68.5	2.3	0.82	15.0			
		2	70.8	2.3	0.82	15.0			
		3	72.9	2.1	0.75	15.0			
		4	75.0	2.1	0.75	15.0			
		5	76.8	1.9	0.68	15.0			
		6	78.7	1.9	0.68	15.0			
		7	80.6	1.9	0.68	15.0			
		8	82.5	1.9	0.68	15.0			
		9						<p>Notes:</p> 	
4	69 (10.0 psi)	0	85.2	0.0	0.00		7.6		
		1	86.7	1.5	0.54	10.0			
		2	88.0	1.3	0.48	10.0			
		3	89.5	1.5	0.54	10.0			
		4	90.8	1.3	0.48	10.0			
		5	92.4	1.5	0.54	10.0			
		6	93.7	1.3	0.48	10.0			
		7	95.0	1.3	0.48	10.0			
		8	96.5	1.5	0.54	10.0			
		9	97.9	1.3	0.48	10.0			
		10	99.2	1.3	0.48	10.0			
5	48 (7.0 psi)	0	100.3	0.0	0.00		8.5	<p>Notes:</p> 	
		1	101.4	1.1	0.41	7.0			
		2	102.6	1.1	0.41	7.0			
		3	103.7	1.1	0.41	7.0			
		4	104.9	1.1	0.41	7.0			
		5	106.0	1.1	0.41	7.0			
		6	107.1	1.1	0.41	7.0			
		7	108.3	1.1	0.41	7.0			
		8						<p>Calculations by: Amir Niazi</p> <p>Verified by: Brad Trytten, P.Geo.</p>	
		9							
		10							

**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 25.96 m Z bottom = 28.74 m		<b>Depth to rock =</b> 9.47 m		<b>Interval Number:</b> 1						
		<b>Water Level:</b> depth (hw) = 0.00 m		<b>Project Number:</b> 11222385						
				<b>Test Hole:</b> MW16B						
				<b>Test Date/Time:</b> 11/28/21						
<b>Water Pressure Test</b>				<b>Graphics</b>						
Drill hole size: HQ3										
Borehole diameter: D= 9.60 cm										
Packer type: SINGLE										
Drill rod diameter: d= - cm										
Test length: L= 2.78 m										
Height of gauge above ground: 0.77										
Gravity head: H0 = h1 + hw = 0.77 m										
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>	
1	69 (10.0 psi)	0	15.5			0.0	0.00		4.7	
		1	17.9			2.3	0.84	10.0		
		2	20.3	2.4	0.86	10.0				
		3	22.0	1.7	0.61	10.0				
		4	22.7	0.8	0.27	10.0				
		5	23.5	0.8	0.27	10.0				
		6	24.2	0.8	0.27	10.0				
		7	25.0	0.8	0.27	10.0				
		8	25.7	0.8	0.27	10.0				
		9	26.5	0.8	0.27	10.0				
10										
2	103 (15.0 psi)	0	28.4	0.0	0.00		3.4			
		1	29.7	1.3	0.48	15.0				
		2	30.7	0.9	0.34	15.0				
		3	31.9	1.2	0.44	15.0				
		4	32.9	1.0	0.35	15.0				
		5	34.0	1.1	0.39	15.0				
		6	34.9	0.9	0.34	15.0				
		7	35.9	1.0	0.35	15.0				
		8	36.9	1.0	0.35	15.0				
		9	37.9	1.1	0.38	15.0				
10	39.0	1.1	0.38	15.0						
10	40.0	2.1	0.76	15.0						
3	138 (20.0 psi)	0	41.6	0.0	0.00		2.8			
		1	42.9	1.2	0.44	20.0				
		2	44.1	1.3	0.46	20.0				
		3	45.4	1.2	0.45	20.0				
		4	46.6	1.2	0.42	20.0				
		5	47.7	1.1	0.41	20.0				
		6	48.8	1.1	0.38	20.0				
		7	49.8	1.0	0.37	20.0				
		8	50.9	1.1	0.41	20.0				
		9	52.0	1.1	0.39	20.0				
		10	53.1	1.1	0.39	20.0				
10	54.1	1.1	0.38	20.0						
4	103 (15.0 psi)	0	54.9	0.0	0.00		2.5			
		1	55.6	0.7	0.25	15.0				
		2	56.2	0.6	0.23	15.0				
		3	56.9	0.7	0.25	15.0				
		4	57.6	0.7	0.26	15.0				
		5	58.4	0.8	0.27	15.0				
		6	59.1	0.8	0.27	15.0				
		7	59.9	0.8	0.27	15.0				
		8	60.6	0.8	0.27	15.0				
		9								
10										
5	69 (10.0 psi)	0	60.8	0.0	0.00		1.9			
		1	60.9	0.2	0.07	10.0				
		2	61.3	0.4	0.14	10.0				
		3	61.7	0.3	0.12	10.0				
		4	62.0	0.4	0.14	10.0				
		5	62.4	0.4	0.14	10.0				
		6	62.8	0.4	0.14	10.0				
		7	63.2	0.4	0.14	10.0				
		8								
		9								
10										
<b>Calculations</b>										
Maximum testing pressure: Pmax = 25H (kPa)				<b>Calculations</b> Maximum testing pressure: Pmax = 25H (kPa) kPa in psi, multiplied by 0.14 psi in kPa, multiplied by 6.9 Q = del B / del t A = Q / Zbottom - Ztop Lu = (avg. A x 1000) / P Lugeon Value used for calc Lu = 1.9 Corresponding pressure P (kPa) = 69						
				<b>Isotropic Hydraulic Conductivity:</b>						
				Equation (after Bliss and Ruston, 1984): $k = (Q / (2 \times \pi \times L \times h)) \times \ln (L / r)$  $k = 1.83E-05 \text{ cm/s}$						
				Interpreted Lugeon pattern (after Houltsby, 1976, and Quinozes, 2010)						
				<b>VOID FILLING</b>						
<b>Calculations by:</b> Amir Niazi				<b>Verified by:</b> Brad Trytten, P.Geo.						



**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

Testing depth		Depth to rock = 9.47 m					Interval Number: 2	
Z top (H) = 16.97 m		Water Level:					Project Number: 11222385	
Z bottom = 19.75 m		depth (hw) = 0.00 m					Test Hole: MW16B	
							Test Date/Time: 11/28/21	
Water Pressure Test								Graphics
Drill hole size: HQ3								
Borehole diameter: D= 9.60 cm								
Packer type: SINGLE								
Drill rod diameter: d= - cm								
Test length: L= 2.78 m								
Height of gauge above ground: 0.77								
Gravity head: H0 = h1 + hw = 0.77 m								
Test no	Pressure P (kPa)	Time t (min)	Reading B (litre)	Flow Q (l/min)	Absorption A (l/min-m)	Pressure Gauge (psi)	Lugeon Value (Lu)	
1	69 (10.0 psi)	0	28.0	0.0	0.00		0.5	
		1	29.0	0.9	0.34	10.0		
		2	29.5	0.5	0.18	10.0		
		3	29.5	0.1	0.03	10.0		
		4	29.7	0.2	0.07	10.0		
		5	29.9	0.2	0.07	10.0		
		6	29.9	0.0	0.00	10.0		
		7	29.9	0.0	0.01	10.0		
		8	30.0	0.1	0.03	10.0		
		9	30.1	0.1	0.03	10.0		
10	30.2	0.1	0.03	10.0				
2	103 (15.0 psi)	0	31.0	0.0	0.00		0.7	
		1	31.3	0.2	0.08	15.0		
		2	31.5	0.2	0.07	15.0		
		3	31.6	0.2	0.05	15.0		
		4	31.9	0.3	0.12	15.0		
		5	32.2	0.2	0.08	15.0		
		6	32.4	0.2	0.07	15.0		
		7	32.6	0.2	0.07	15.0		
		8	32.8	0.3	0.10	15.0		
		9	33.0	0.2	0.07	15.0		
10	33.2	0.2	0.07	15.0				
3	138 (20.0 psi)	0	34.1	0.0	0.00		0.8	
		1	34.3	0.3	0.10	20.0		
		2	34.6	0.3	0.11	20.0		
		3	34.9	0.3	0.11	20.0		
		4	35.3	0.4	0.14	20.0		
		5	35.6	0.3	0.11	20.0		
		6	36.0	0.3	0.12	20.0		
		7	36.2	0.3	0.10	20.0		
		8	36.5	0.3	0.10	20.0		
		9	36.8	0.3	0.10	20.0		
10	37.1	0.3	0.10	20.0				
4	103 (15.0 psi)	0	37.5	0.0	0.00		0.6	
		1	37.6	0.1	0.04	15.0		
		2	37.8	0.2	0.08	15.0		
		3	38.0	0.2	0.05	15.0		
		4	38.2	0.2	0.07	15.0		
		5	38.3	0.2	0.05	15.0		
		6	38.5	0.2	0.08	15.0		
		7	38.7	0.2	0.05	15.0		
		8	38.8	0.2	0.05	15.0		
		9	39.0	0.2	0.05	15.0		
10	39.1	0.2	0.05	15.0				
5	69 (10.0 psi)	0	39.2	0.0	0.00		0.5	
		1	39.3	0.1	0.04	10.0		
		2	39.4	0.1	0.03	10.0		
		3	39.4	0.1	0.03	10.0		
		4	39.6	0.2	0.05	10.0		
		5	39.7	0.2	0.05	10.0		
		6	39.7	0.0	0.00	10.0		
		7	39.8	0.1	0.03	10.0		
		8	39.9	0.1	0.03	11.0		
		9	40.0	0.1	0.03	12.0		
10								
<b>Calculations</b> Maximum testing pressure: $P_{max} = 25H$ (kPa) kPa in psi, multiplied by 0.14 psi in kPa, multiplied by 6.9 $Q = \Delta B / \Delta t$ $A = Q / Z_{bottom} - Z_{top}$ $Lu = (avg. A \times 1000) / P$ Lugeon Value used for calc Lu = 0.6 Corresponding pressure P (kPa) = 97								
Isotropic Hydraulic Conductivity:								
Equation (after Bliss and Ruston, 1984): $k = (Q / (2 \times \pi \times L \times h)) \times \ln(L / r)$  $k = 5.85E-06$ cm/s								
Interpreted Lugeon pattern (after Housby, 1976, and Quinozes, 2010) <b>LAMINAR</b>								
Notes:								
<b>Calculations by:</b> Amir Niazi								<b>Verified by:</b> Brad Trytten, P.Geo.



**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 5.11 m Z bottom = 14.94 m		<b>Depth to rock =</b> 4.00 m		<b>Interval Number:</b> 4					
		<b>Water Level:</b> depth (hw) = 0.90 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> MW5B					
				<b>Test Date/Time:</b> 1/27/21 10:00 PM					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.66 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 9.83 m									
Height of gauge above ground: 0.69 m									
Gravity head: H0 = h1 + hw = 1.59 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	69 (10.0 psi)	0	7.5			0.0	0.00		0.9
		1	8.1			0.6	0.06	10.0	
		2	8.7	0.6	0.06	10.0			
		3	9.3	0.6	0.06	10.0			
		4	9.9	0.6	0.06	10.0			
		5	10.5	0.6	0.06	10.0			
		6							
		7							
		8							
		9							
		10							
		11							
2	103 (15.0 psi)	0	6.0	0.0	0.00		1.3		
		1	7.2	1.2	0.12	15.0			
		2	8.5	1.3	0.13	15.0			
		3	9.6	1.1	0.11	15.0			
		4	11.3	1.7	0.17	15.0			
		5	12.7	1.4	0.14	15.0			
		6	14.1	1.4	0.14	15.0			
		7							
		8							
		9							
		10							
		11							
3	138 (20.0 psi)	0	2.0	0.0	0.00		1.8		
		1	4.4	2.4	0.24	20.0			
		2	6.8	2.4	0.24	20.0			
		3	9.2	2.4	0.24	20.0			
		4	11.6	2.4	0.24	20.0			
		5							
		6							
		7							
		8							
		9							
		10							
		11							
		12							
4	103 (15.0 psi)	0	3.5	0.0	0.00		1.3		
		1	5.5	2.0	0.20	15.0			
		2	7.4	1.9	0.19	15.0			
		3	8.7	1.3	0.13	15.0			
		4	10.0	1.3	0.13	15.0			
		5	11.3	1.3	0.13	15.0			
		6	12.6	1.3	0.13	15.0			
		7							
		8							
		9							
		10							
5	69 (10.0 psi)	0	0.5	0.0	0.00		0.3		
		1	0.7	0.2	0.02	10.0			
		2	0.9	0.2	0.02	10.0			
		3	1.1	0.2	0.02	10.0			
		4	1.3	0.2	0.02	10.0			
		5							
		6							
		7							
		8							
		9							
		10							
<b>Calculations by:</b> Amir Niazi				<b>Calculations</b>					
				Maximum testing pressure: Pmax = 25H (kPa) kPa in psi, multiplied by 0.14					
				psi in kPa, multiplied by 6.9					
				Q = del B / del t					
				A = Q / Zbottom - Ztop					
				Lu = (avg. A x 1000) / P					
				Lugeon Value used for calc Lu = 0.9					
				Corresponding pressure P (kPa) = 69.0					
				<b>Isotropic Hydraulic Conductivity:</b>					
				Equation (after Bliss and Ruston, 1984): k = (Q / (2 x pi x L x h)) x ln (L / r)					
				k = 9.94E-06 cm/s					
				Interpreted Lugeon pattern (after Housby, 1976, and Quinozes, 2010)					
				<b>DILATION</b>					
				Notes:					
<b>Calculations by:</b> Amir Niazi						<b>Verified by:</b> Brad Trytten, P.Geo.			

**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 15.85 m Z bottom = 31.70 m		<b>Depth to rock =</b> 4.00 m		<b>Interval Number:</b> 4					
		<b>Water Level:</b> depth (hw) = 0.90 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> MW5B					
				<b>Test Date/Time:</b> 1/28/21 4:30 AM					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 15.85 m									
Height of gauge above ground: 0.69 m									
Gravity head: H0 = h1 + hw = 1.59 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	103 (15.0 psi)	0	2.5			0.0	0.00	15.0	0.8
		1	3.8			1.3	0.08		
		2	5.1	1.3	0.08				
		3	6.4	1.3	0.08				
		4	7.7	1.3	0.08				
		5							
		6							
		7							
		8							
		9							
10									
2	155 (22.5 psi)	0	5.0	0.0	0.00	22.5	1.0		
		1	7.6	2.6	0.16				
		2	10.0	2.4	0.15				
		3	12.4	2.4	0.15				
		4	14.8	2.4	0.15				
		5	17.1	2.3	0.15				
		6	19.5	2.4	0.15				
		7							
		8							
		9							
10									
3	207 (30.0 psi)	0	7.0	0.0	0.00	30.0	1.1		
		1	11.1	4.1	0.26				
		2	14.7	3.6	0.23				
		3	18.5	3.8	0.24				
		4	22.2	3.7	0.23				
		5	25.9	3.7	0.23				
		6	29.6	3.7	0.23				
		7	33.3	3.7	0.23				
		8							
		9							
10									
4	155 (22.5 psi)	0	1.0	0.0	0.00	22.5	0.7		
		1	2.5	1.5	0.09				
		2	4.3	1.8	0.11				
		3	6.1	1.8	0.11				
		4	7.9	1.8	0.11				
		5	9.7	1.8	0.11				
		6							
		7							
		8							
		9							
10									
5	103 (15.0 psi)	0	5.5	0.0	0.00	15.0	0.4		
		1	6.1	0.6	0.04				
		2	6.7	0.6	0.04				
		3	7.3	0.6	0.04				
		4	7.9	0.6	0.04				
		5							
		6							
		7							
		8							
		9							
10									
				<b>Calculations</b>					
				Maximum testing pressure: Pmax = 25H (kPa)					
				kPa in psi, multiplied by 0.14					
				psi in kPa, multiplied by 6.9					
				Q = del B / del t					
				A = Q / Zbottom - Ztop					
				Lu = (avg. A x 1000) / P					
				Lugeon Value used for calc Lu = 0.7					
				Corresponding pressure P (kPa) = 155					
				<b>Isotropic Hydraulic Conductivity:</b>					
				Equation (after Bliss and Ruston, 1984): k = (Q / (2 x pi x L x h)) x ln (L / r)					
				k = 9.99E-06 cm/s					
				Interpreted Lugeon pattern (after Houlby, 1976, and Quinozes, 2010) <b>DILATION</b>					
				Notes:					
<b>Calculations by:</b> Amir Niazi				<b>Verified by:</b> Brad Trytten, P.Geo.					



**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 5.64 m Z bottom = 11.89 m		<b>Depth to rock =</b> 2.70 m		<b>Interval Number:</b> 1					
		<b>Water Level:</b> depth (hw) = 0.60 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> MW6B					
				<b>Test Date/Time:</b> 1/27/21 1:35 AM					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.66 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 6.25 m									
Height of gauge above ground: 0.69 m									
Gravity head: H0 = h1 + hw = 1.29 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	69 (10.0 psi)	0 1 2 3 4 5 6 7 8 9 10 11	3.0 3.1 3.1			0.0 0.1 0.0	0.00 0.02 0.00	10.0 10.0	0.1
2	76 (11.0 psi)	0 1 2 3 4 5 6 7 8 9 10 11	4.8 5.2 5.5 5.7 5.9 6.1 6.3			0.0 0.4 0.3 0.2 0.2 0.2	0.00 0.06 0.05 0.03 0.03 0.03	11.0 11.0 11.0 11.0 11.0	0.5
3	83 (12.0 psi)	0 1 2 3 4 5 6 7 8 9 10 11 12	7.0 7.5 8.4 9.0 10.2 10.8	0.0 0.5 0.9 0.6 1.2 0.6	0.00 0.08 0.14 0.10 0.19 0.10	12.0 12.0 12.0 12.0	1.6		
4	76 (11.0 psi)	0 1 2 3 4 5 6 7 8 9 10	2.5 2.7 2.9 3.1 3.3	0.0 0.2 0.2 0.2 0.2	0.00 0.03 0.03 0.03 0.03	11.0 11.0 11.0 11.0	0.4		
5	69 (10.0 psi)	0 1 2 3 4 5 6 7 8 9 10	3.1 3.1 3.1	0.0 0.0 0.0	0.00 0.00 0.00	10.0 10.0	0.0		
				<b>Calculations</b>					
				Maximum testing pressure: Pmax = 25H (kPa) kPa in psi, multiplied by 0.14					
				psi in kPa, multiplied by 6.9					
				Q = del B / del t					
				A = Q / Zbottom - Ztop					
				Lu = (avg. A x 1000) / P					
				Lugeon Value used for calc Lu = 0.4					
				Corresponding pressure P (kPa) = 76					
				<b>Isotropic Hydraulic Conductivity:</b>					
				Equation (after Bliss and Ruston, 1984): k = (Q / (2 x pi x L x h)) x ln (L / r)					
				k = 4.56E-06 cm/s					
				Interpreted Lugeon pattern (after Hously, 1976, and Quinozes, 2010)					
				<b>DILATION</b>					
<b>Calculations by:</b> Amir Niazi				<b>Verified by:</b> Brad Trytten, P.Geo.					



**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 21.80 m Z bottom = 30.19 m		<b>Depth to rock =</b> 2.70 m <b>Water Level:</b> depth (hw) = 0.60 m		<b>Interval Number:</b> 2 <b>Project Number:</b> 11222385 <b>Test Hole:</b> MW6B <b>Test Date/Time:</b> 1/27/21 10:00 AM																																																																																																																																																																																																																																																																																																																																																										
<b>Water Pressure Test</b> Drill hole size: HQ3 Borehole diameter: D= 9.60 cm Packer type: SINGLE Drill rod diameter: d= - cm Test length: L= 8.39 m Height of gauge above ground: 0.80 m				<b>Graphics</b> 																																																																																																																																																																																																																																																																																																																																																										
<b>Gravity head:</b> $H_0 = h_1 + h_w = 1.40$ m																																																																																																																																																																																																																																																																																																																																																														
<table border="1"> <thead> <tr> <th>Test no</th> <th>Pressure P (kPa)</th> <th>Time t (min)</th> <th>Reading B (litre)</th> <th>Flow Q (l/min)</th> <th>Absorption A (l/min-m)</th> <th>Pressure Gauge (psi)</th> <th>Lugeon Value (Lu)</th> </tr> </thead> <tbody> <tr> <td rowspan="10">1</td> <td rowspan="10">103 (15.0 psi)</td> <td>0</td><td>5.0</td><td>0.0</td><td>0.00</td><td></td><td>2.7</td> </tr> <tr><td>1</td><td>7.4</td><td>2.4</td><td>0.29</td><td>15.0</td><td></td></tr> <tr><td>2</td><td>9.9</td><td>2.5</td><td>0.30</td><td>15.0</td><td></td></tr> <tr><td>3</td><td>11.9</td><td>2.0</td><td>0.24</td><td>15.0</td><td></td></tr> <tr><td>4</td><td>14.4</td><td>2.5</td><td>0.30</td><td>15.0</td><td></td></tr> <tr><td>5</td><td>16.7</td><td>2.3</td><td>0.27</td><td>15.0</td><td></td></tr> <tr><td>6</td><td>19.1</td><td>2.4</td><td>0.29</td><td>15.0</td><td></td></tr> <tr><td>7</td><td>21.3</td><td>2.2</td><td>0.26</td><td>15.0</td><td></td></tr> 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psi)	0	2.0	0.0	0.00		1.8	1	5.4	3.4	0.41	30.0		2	8.4	3.0	0.36	30.0		3	11.5	3.1	0.37	30.0		4	14.7	3.2	0.38	30.0		5	17.8	3.1	0.37	30.0		6	20.9	3.1	0.37	30.0		7	24.2	3.3	0.39	30.0		8	27.3	3.1	0.37	30.0		9	30.3	3.0	0.36	30.0		10	33.5	3.2	0.38	30.0		4	152 (22.0 psi)	0	8.1	0.0	0.00		2.5	1	11.2	3.1	0.37	22.0		2	14.3	3.1	0.37	22.0		3	17.5	3.2	0.38	22.0		4	20.8	3.3	0.39	22.0		5	23.8	3.0	0.36	22.0		6	27.1	3.3	0.39	22.0		7	30.3	3.2	0.38	22.0		8	33.5	3.2	0.38	22.0		9	36.7	3.2	0.38	22.0		10	39.9	3.2	0.38	22.0		5	103 (15.0 psi)	0	3.5	0.0	0.00		3.5	1	6.4	2.9	0.35	15.0		2	9.3	2.9	0.35	15.0		3	12.2	2.9	0.35	15.0		4	15.2	3.0	0.36	15.0		5	18.3	3.1	0.37	15.0		6	21.3	3.0	0.36	15.0		7	24.4	3.1	0.37	15.0		8	27.5	3.1	0.37	15.0		9	30.6	3.1	0.37	15.0		10	33.8	3.2	0.38	15.0			
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2	175 (25.3 psi)	0	3.0	0.0	0.00		2.3																																																																																																																																																																																																																																																																																																																																																							
		1	6.5	3.5	0.42	23.0																																																																																																																																																																																																																																																																																																																																																								
		2	10.0	3.5	0.42	23.0																																																																																																																																																																																																																																																																																																																																																								
		3	13.4	3.4	0.41	23.0																																																																																																																																																																																																																																																																																																																																																								
		4	16.7	3.3	0.39	23.0																																																																																																																																																																																																																																																																																																																																																								
		5	20.1	3.4	0.41	23.0																																																																																																																																																																																																																																																																																																																																																								
		6	23.4	3.3	0.39	23.0																																																																																																																																																																																																																																																																																																																																																								
		7	26.7	3.3	0.39	23.0																																																																																																																																																																																																																																																																																																																																																								
		8	30.1	3.4	0.41	23.0																																																																																																																																																																																																																																																																																																																																																								
		9	33.4	3.3	0.39	23.0																																																																																																																																																																																																																																																																																																																																																								
10	36.6	3.2	0.38	30.0																																																																																																																																																																																																																																																																																																																																																										
3	207 (30.0 psi)	0	2.0	0.0	0.00		1.8																																																																																																																																																																																																																																																																																																																																																							
		1	5.4	3.4	0.41	30.0																																																																																																																																																																																																																																																																																																																																																								
		2	8.4	3.0	0.36	30.0																																																																																																																																																																																																																																																																																																																																																								
		3	11.5	3.1	0.37	30.0																																																																																																																																																																																																																																																																																																																																																								
		4	14.7	3.2	0.38	30.0																																																																																																																																																																																																																																																																																																																																																								
		5	17.8	3.1	0.37	30.0																																																																																																																																																																																																																																																																																																																																																								
		6	20.9	3.1	0.37	30.0																																																																																																																																																																																																																																																																																																																																																								
		7	24.2	3.3	0.39	30.0																																																																																																																																																																																																																																																																																																																																																								
		8	27.3	3.1	0.37	30.0																																																																																																																																																																																																																																																																																																																																																								
		9	30.3	3.0	0.36	30.0																																																																																																																																																																																																																																																																																																																																																								
10	33.5	3.2	0.38	30.0																																																																																																																																																																																																																																																																																																																																																										
4	152 (22.0 psi)	0	8.1	0.0	0.00		2.5																																																																																																																																																																																																																																																																																																																																																							
		1	11.2	3.1	0.37	22.0																																																																																																																																																																																																																																																																																																																																																								
		2	14.3	3.1	0.37	22.0																																																																																																																																																																																																																																																																																																																																																								
		3	17.5	3.2	0.38	22.0																																																																																																																																																																																																																																																																																																																																																								
		4	20.8	3.3	0.39	22.0																																																																																																																																																																																																																																																																																																																																																								
		5	23.8	3.0	0.36	22.0																																																																																																																																																																																																																																																																																																																																																								
		6	27.1	3.3	0.39	22.0																																																																																																																																																																																																																																																																																																																																																								
		7	30.3	3.2	0.38	22.0																																																																																																																																																																																																																																																																																																																																																								
		8	33.5	3.2	0.38	22.0																																																																																																																																																																																																																																																																																																																																																								
		9	36.7	3.2	0.38	22.0																																																																																																																																																																																																																																																																																																																																																								
10	39.9	3.2	0.38	22.0																																																																																																																																																																																																																																																																																																																																																										
5	103 (15.0 psi)	0	3.5	0.0	0.00		3.5																																																																																																																																																																																																																																																																																																																																																							
		1	6.4	2.9	0.35	15.0																																																																																																																																																																																																																																																																																																																																																								
		2	9.3	2.9	0.35	15.0																																																																																																																																																																																																																																																																																																																																																								
		3	12.2	2.9	0.35	15.0																																																																																																																																																																																																																																																																																																																																																								
		4	15.2	3.0	0.36	15.0																																																																																																																																																																																																																																																																																																																																																								
		5	18.3	3.1	0.37	15.0																																																																																																																																																																																																																																																																																																																																																								
		6	21.3	3.0	0.36	15.0																																																																																																																																																																																																																																																																																																																																																								
		7	24.4	3.1	0.37	15.0																																																																																																																																																																																																																																																																																																																																																								
		8	27.5	3.1	0.37	15.0																																																																																																																																																																																																																																																																																																																																																								
		9	30.6	3.1	0.37	15.0																																																																																																																																																																																																																																																																																																																																																								
10	33.8	3.2	0.38	15.0																																																																																																																																																																																																																																																																																																																																																										
<b>Calculations</b> Maximum testing pressure: $P_{max} = 25H$ (kPa) kPa in psi, multiplied by 0.14 psi in kPa, multiplied by 6.9 $Q = \Delta B / \Delta t$ $A = Q / Z_{bottom} - Z_{top}$ $Lu = (avg. A \times 1000) / P$ Lugeon Value used for calc Lu = 1.8 Corresponding pressure P (kPa) = 207				<b>Isotropic Hydraulic Conductivity:</b>  Equation (after Bliss and Ruston, 1984): $k = (Q / (2 \times \pi \times L \times h)) \times \ln(L / r)$  $k = 2.26E-05$ cm/s  Interpreted Lugeon pattern (after Houltsby, 1976, and Quinozes, 2010) <b>TURBULENT</b>																																																																																																																																																																																																																																																																																																																																																										
<b>Calculations by:</b> Amir Niazi				<b>Notes:</b>  																																																																																																																																																																																																																																																																																																																																																										
<b>Verified by:</b> Brad Trytten, P.Geo.																																																																																																																																																																																																																																																																																																																																																														

**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 8.84 m Z bottom = 10.67 m		<b>Depth to rock =</b> 3.80 m		<b>Interval Number:</b> 1			
		<b>Water Level:</b> depth (hw) = 0.15 m		<b>Project Number:</b> 11222385			
				<b>Test Hole:</b> MW7B			
				<b>Test Date/Time:</b> 1/24/21 8:50 AM			
				<b>Graphics</b>			
<b>Water Pressure Test</b>							
Drill hole size: HQ3							
Borehole diameter: D= 9.66 cm							
Packer type: SINGLE							
Drill rod diameter: d= - cm							
Test length: L= 1.83 m							
Height of gauge above ground: 0.74 m							
<b>Gravity head:</b> H0 = h1 + hw = 0.89 m							
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>	<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	41 (6.0 psi)	0	37986.0	0.0	0.00	6.0	509.7
		1	38023.0	37.0	20.23		
		2	38061.5	38.5	21.05		
		3	38100.0	38.5	21.05		
		4	38139.0	39.0	21.33		
		5	38177.5	38.5	21.05		
		6	38216.5	39.0	21.33		
		7	38255.0	38.5	21.05		
		8	38294.5	39.5	21.60		
		9	38333.5	39.0	21.33		
2	83 (12.0 psi)	0	38392.5	0.0	0.00	12.0	259.9
		1	38432.0	39.5	21.60		
		2	38471.0	39.0	21.33		
		3	38510.5	39.5	21.60		
		4	38550.5	40.0	21.87		
		5	38589.5	39.0	21.33		
		6	38628.5	39.0	21.33		
		7	38668.5	40.0	21.87		
		8	38709.0	40.5	22.15		
		9	38747.0	38.0	20.78		
3	110 (16.0 psi)	0	38852.5	0.0	0.00	16.0	164.3
		1	38891.5	39.0	21.33		
		2	38939.5	48.0	26.25		
		3	38967.5	28.0	15.31		
		4	39004.0	36.5	19.96		
		5	39041.0	37.0	20.23		
		6	39078.5	37.5	20.51		
		7	39116.0	37.5	20.51		
		8	39123.5	7.5	4.10		
		9	39129.0	5.5	3.01		
		10					
		11					
12							
4	83 (12.0 psi)	0	39310.0	0.0	0.00	12.0	245.3
		1	39340.0	30.0	16.40		
		2	39384.5	44.5	24.33		
		3	39422.0	37.5	20.51		
		4	39458.5	36.5	19.96		
		5	39445.0	-13.5	-7.38		
		6	39530.5	85.5	46.75		
		7	39567.5	37.0	20.23		
		8	39603.5	36.0	19.69		
		9	39640.5	37.0	20.23		
5	48 (7.0 psi)	0				7.0	-
		1					
		2					
		3					
		4					
		5					
		6					
		7					
		8					
		9					
10							
<b>Calculations by:</b> Amir Niazi				<b>Verified by:</b> Brad Trytten, P.Geo.			



**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 16.46 m Z bottom = 30.48 m		<b>Depth to rock =</b> 3.80 m		<b>Interval Number:</b> 2					
		<b>Water Level:</b> depth (hw) = 0.15 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> MW7B					
				<b>Test Date/Time:</b> 1/24/21 2:30 PM					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 14.02 m									
Height of gauge above ground: 0.74 m									
Gravity head: H0 = h1 + hw = 0.89 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	69 (10.0 psi)	0	39720.5			0.0	0.00		37.8
		1	39756.5			36.0	2.57	10.0	
		2	39829.5	73.0	5.21	10.0			
		3	39866.5	37.0	2.64	10.0			
		4	39903.0	36.5	2.60	10.0			
		5	39939.0	36.0	2.57	10.0			
		6	39977.0	38.0	2.71	10.0			
		7	40012.5	35.5	2.53	10.0			
		8	40049.0	36.5	2.60	10.0			
		9							
10									
2	103 (15.0 psi)	0	40119.5	0.0	0.00		25.3		
		1	40156.0	36.5	2.60	15.0			
		2	40192.5	36.5	2.60	15.0			
		3	40229.0	36.5	2.60	15.0			
		4	40265.5	36.5	2.60	15.0			
		5	40302.5	37.0	2.64	15.0			
		6	40339.5	37.0	2.64	15.0			
		7	40376.0	36.5	2.60	15.0			
		8	40412.5	36.5	2.60	15.0			
		9	40449.0	36.5	2.60	15.0			
10	40485.5	36.5	2.60	15.0					
3	138 (20.0 psi)	0	40575.5	0.0	0.00		19.0		
		1	40611.5	36.0	2.57	20.0			
		2	40648.0	36.5	2.60	20.0			
		3	40684.5	36.5	2.60	20.0			
		4	40721.0	36.5	2.60	20.0			
		5	40757.5	36.5	2.60	20.0			
		6	40795.5	38.0	2.71	20.0			
		7	40830.5	35.0	2.50	20.0			
		8	40867.5	37.0	2.64	20.0			
		9	40904.5	37.0	2.64	20.0			
10									
4	103 (15.0 psi)	0	40993.0	0.0	0.00		25.2		
		1	41029.5	36.5	2.60	15.0			
		2	41067.5	38.0	2.71	15.0			
		3	41103.5	36.0	2.57	15.0			
		4	41140.0	36.5	2.60	15.0			
		5	41176.5	36.5	2.60	15.0			
		6	41214.0	37.5	2.67	15.0			
		7	41250.5	36.5	2.60	15.0			
		8	41287.5	37.0	2.64	15.0			
		9	41323.5	36.0	2.57	15.0			
10									
5	69 (10.0 psi)	0	41405.5	0.0	0.00		38.2		
		1	41442.5	37.0	2.64	10.0			
		2	41479.5	37.0	2.64	10.0			
		3	41516.5	37.0	2.64	10.0			
		4	41553.0	36.5	2.60	10.0			
		5	41590.0	37.0	2.64	10.0			
		6	41627.5	37.5	2.67	10.0			
		7	41664.5	37.0	2.64	10.0			
		8	41701.0	36.5	2.60	10.0			
		9	41738.0	37.0	2.64	10.0			
10									
				<b>Calculations</b>					
				Maximum testing pressure: Pmax = 25H (kPa)					
				kPa in psi, multiplied by 0.14					
				psi in kPa, multiplied by 6.9					
				Q = del B / del t					
				A = Q / Zbottom - Ztop					
				Lu = (avg. A x 1000) / P					
				Lugeon Value used for calc Lu = 19.0					
				Corresponding pressure P (kPa) = 138					
				<b>Isotropic Hydraulic Conductivity:</b>					
				Equation (after Bliss and Ruston, 1984): k = (Q / (2 x pi x L x h)) x ln (L / r)					
				k = 2.62E-04 cm/s					
				Interpreted Lugeon pattern (after Houlby, 1976, and Quinozes, 2010) <b>TURBULENT</b>					
<b>Calculations by:</b> Amir Niazi				<b>Notes:</b>					
<b>Verified by:</b> Brad Trytten, P.Geo.									

**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 27.74 m Z bottom = 30.18 m		<b>Depth to rock =</b> 7.00 m		<b>Interval Number:</b> 1				
		<b>Water Level:</b> depth (hw) = 0.90 m		<b>Project Number:</b> 11222385				
				<b>Test Hole:</b> MW15B				
				<b>Test Date/Time:</b> 1/24/21 2:30 PM				
<b>Water Pressure Test</b>				<b>Graphics</b>				
Drill hole size: HQ3		Borehole diameter: D= 9.66 cm						
Packer type: SINGLE		Drill rod diameter: d= - cm						
Test length: L= 2.44 m		Height of gauge above ground: 1.02 m						
Gravity head: H0 = h1 + hw = 1.92 m								
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>	<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>	
1	97 (14.0 psi)	0 1 2 3 4 5 6 7 8 9 10	34041.7 34074.5 34118.0 34141.5 34175.0 34208.5 34241.5 34275.0 34308.0 34341.0	0.0 32.8 43.5 23.5 33.5 33.5 33.0 33.5 33.0 33.0	0.00 13.45 17.84 9.64 13.74 13.74 13.53 13.74 13.53 13.53	14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0	141.4	
2	145 (21.0 psi)	0 1 2 3 4 5 6 7 8 9 10	34418.0 34449.5 34482.0 34513.0 34545.0 34577.0 34608.0 34640.0 34672.0 34703.5	0.0 31.5 32.5 31.0 32.0 32.0 31.0 32.0 32.0 31.5	0.00 12.92 13.33 12.71 13.12 13.12 12.71 13.12 13.12 12.92	21.0 21.0 21.0 21.0 21.0 21.0 21.0 21.0 21.0 21.0	89.9	<b>Calculations</b> Maximum testing pressure: Pmax = 25H (kPa) kPa in psi, multiplied by 0.14  psi in kPa, multiplied by 6.9 Q = del B / del t A = Q / Zbottom - Ztop Lu = (avg. A x 1000) / P Lugeon Value used for calc Lu = 66.5 Corresponding pressure P (kPa) = 193
3	193 (28.0 psi)	0 1 2 3 4 5 6 7 8 9 10 11 12	34797.0 34825.5 34857.5 34889.0 34920.0 34952.0 34984.0 35015.5 35047.5 35079.5	0.0 28.5 32.0 31.5 31.0 32.0 32.0 31.5 32.0 32.0	0.00 11.69 13.12 12.92 12.71 13.12 13.12 12.92 13.12 13.12	28.0 28.0 28.0 28.0 28.0 28.0 28.0 28.0 28.0 28.0	66.5	<b>Isotropic Hydraulic Conductivity:</b>  Equation (after Bliss and Ruston, 1984): $k = (Q / (2 \times \pi \times L \times h)) \times \ln (L / r)$  <b>k = 6.16E-04 cm/s</b>  Interpreted Lugeon pattern (after Houltsby, 1976, and Quinozes, 2010) <b>TURBULENT</b>
4	145 (21.0 psi)	0 1 2 3 4 5 6 7 8 9 10	35161.0 35192.5 35225.0 35257.5 35289.0 35321.5 35354.0 35385.5 35417.5 35449.5	0.0 31.5 32.5 32.5 31.5 32.5 32.5 31.5 32.0 32.0	0.00 12.92 13.33 13.33 12.92 13.33 13.33 12.92 13.12 13.12	21.0 21.0 21.0 21.0 21.0 21.0 21.0 21.0 21.0 21.0	90.8	Notes:
5	97 (14.0 psi)	0 1 2 3 4 5 6 7 8 9 10	35532.5 35565.0 35598.0 35621.0 35663.5 35696.5 35729.5 35762.0 35795.0 35827.5	32.5 33.0 23.0 42.5 33.0 33.0 32.5 32.5 33.0 32.5	13.33 13.53 9.43 17.43 13.53 13.53 13.33 13.33 13.53 13.33	14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0	139.4	
<b>Calculations by:</b> Amir Niazi							<b>Verified by:</b> Brad Trytten, P.Geo.	



**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 9.45 m Z bottom = 30.18 m		<b>Depth to rock =</b> 7.00 m		<b>Interval Number:</b> 2					
		<b>Water Level:</b> depth (hw) = 0.90 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> MW15B					
				<b>Test Date/Time:</b> 1/24/21 2:30 PM					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3				<p align="center">Pressure (kPa)</p>					
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 20.73 m									
Height of gauge above ground: 0.80 m				<p align="center">Lugeon Value</p>					
Gravity head: H0 = h1 + hw = 1.70 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	34 (5.0 psi)	0	35899.0			0.0	0.00		45.8
		1	35941.5			42.5	2.05	5.0	
		2	35974.5	33.0	1.59	5.0			
		3	36007.5	33.0	1.59	5.0			
		4	36040.0	32.5	1.57	5.0			
		5	36073.0	33.0	1.59	5.0			
		6	36105.5	32.5	1.57	5.0			
		7	36138.0	32.5	1.57	5.0			
		8	36171.0	33.0	1.59	5.0			
		9	36203.5	32.5	1.57	6.0			
2	52 (7.5 psi)	0	36299.5	0.0	0.00		31.1		
		1	36332.5	33.0	1.59	7.5			
		2	36360.0	27.5	1.33	7.5			
		3	36397.5	37.5	1.81	7.5			
		4	36430.5	33.0	1.59	7.5			
		5	36462.4	31.9	1.54	7.5			
		6	36495.5	33.1	1.60	7.5			
		7	36528.0	32.5	1.57	7.5			
		8	36560.5	32.5	1.57	7.5			
		9	36593.5	33.0	1.59	7.5			
3	69 (10.0 psi)	0	36683.0	0.0	0.00		22.9		
		1	36715.5	32.5	1.57	10.0			
		2	36748.0	32.5	1.57	10.0			
		3	36780.5	32.5	1.57	10.0			
		4	36813.0	32.5	1.57	10.0			
		5							
		6	36905.5						
		7	36938.0	32.5	1.57	10.0			
		8	36970.0	32.0	1.54	10.0			
		9	37003.5	33.5	1.62	10.0			
10	37035.5	32.0	1.54	10.0					
4	52 (7.5 psi)	0	37121.5	0.0	0.00		30.6		
		1	37154.0	32.5	1.57	7.5			
		2	37186.5	32.5	1.57	7.5			
		3	37219.5	33.0	1.59	7.5			
		4	37252.5	33.0	1.59	7.5			
		5	37285.0	32.5	1.57	7.5			
		6	37317.5	32.5	1.57	7.5			
		7	37350.0	32.5	1.57	7.5			
		8	37383.0	33.0	1.59	7.5			
		9	37416.0	33.0	1.59	7.5			
5	34 (5.0 psi)	0	37503.0	0.0	0.00		46.0		
		1	37536.5	33.5	1.62	5.0			
		2	37569.0	32.5	1.57	5.0			
		3	37601.0	32.0	1.54	5.0			
		4	37634.5	33.5	1.62	5.0			
		5	37667.5	33.0	1.59	5.0			
		6	37700.5	33.0	1.59	5.0			
		7	37732.0	31.5	1.52	5.0			
		8	37766.0	34.0	1.64	5.0			
		9	37799.0	33.0	1.59	5.0			
				<p align="center">Avg. absorption (l/(min-m))</p>					
				<b>Calculations</b>					
				Maximum testing pressure: Pmax = 25H (kPa)					
				kPa in psi, multiplied by 0.14					
				psi in kPa, multiplied by 6.9					
				Q = del B / del t					
				A = Q / Zbottom - Ztop					
				Lu = (avg. A x 1000) / P					
				Lugeon Value used for calc Lu = 22.9					
				Corresponding pressure P (kPa) = 69					
				<b>Isotropic Hydraulic Conductivity:</b>					
				Equation (after Bliss and Ruston, 1984): k = (Q / (2 x pi x L x h)) x ln (L / r)					
				k = 2.89E-04 cm/s					
				Interpreted Lugeon pattern (after Houlby, 1976, and Quinozes, 2010) <b>TURBULENT</b>					
<b>Calculations by:</b> Amir Niazi				<b>Notes:</b>					
<b>Verified by:</b> Brad Trytten, P.Geo.									

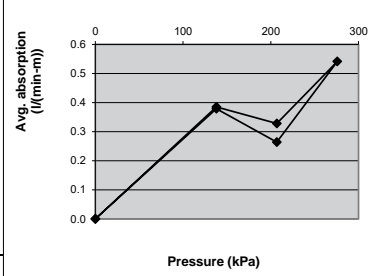
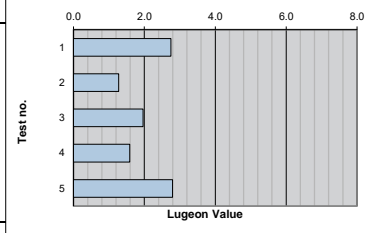
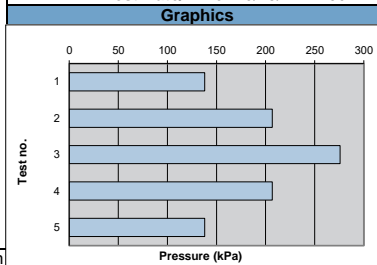
**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 140.60 m Z bottom = 143.82 m		<b>Depth to rock =</b> 7.50 m		<b>Interval Number:</b> 2					
		<b>Water Level:</b> depth (hw) = 0.75 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> BR21-271					
				<b>Test Date/Time:</b> 6/13/21 11:30 PM					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 3.22 m									
Height of gauge above ground: 0.35 m									
Gravity head: H0 = h1 + hw = 1.10 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	138 (20.0 psi)	0	2.0			0.0	0.00		2.7
		1	3.2			1.2	0.37	20.0	
		2	4.5	1.3	0.40	20.0			
		3	5.7	1.2	0.37	20.0			
		4	6.9	1.2	0.37	20.0			
		5	8.2	1.3	0.40	20.0			
		6	9.4	1.2	0.37	20.0			
		7	10.6	1.2	0.37	20.0			
		8	11.8	1.2	0.37	20.0			
		9	13.0	1.2	0.37	20.0			
2	207 (30.0 psi)	0	9.5	0.0	0.00		1.3		
		1	10.2	0.7	0.22	30.0			
		2	11.2	1.0	0.31	30.0			
		3	12.1	0.9	0.28	30.0			
		4	12.9	0.8	0.25	30.0			
		5	13.7	0.8	0.25	30.0			
		6	14.8	1.1	0.34	30.0			
		7	15.3	0.5	0.16	30.0			
		8	16.0	0.7	0.22	30.0			
		9	16.7	0.7	0.22	30.0			
		10	17.7	1.0	0.31	30.0			
		11	18.7	1.0	0.31	30.0			
		12	19.5	0.8	0.25	30.0			
		13	20.4	0.9	0.28	30.0			
3	276 (40.0 psi)	0	6.0	0.0	0.00		2.0		
		1	7.8	1.8	0.56	40.0			
		2	9.4	1.6	0.50	40.0			
		3	11.1	1.7	0.53	40.0			
		4	12.7	1.6	0.50	40.0			
		5	14.3	1.6	0.50	40.0			
		6	16.2	1.9	0.59	40.0			
		7	18.0	1.8	0.56	40.0			
		8	19.7	1.7	0.53	40.0			
		9	21.6	1.9	0.59	40.0			
		10	23.3	1.7	0.53	40.0			
		11	24.9	1.6	0.50	40.0			
		12	26.7	1.8	0.56	40.0			
		13	28.5	1.8	0.56	40.0			
4	207 (30.0 psi)	0	2.5	0.0	0.00		1.6		
		1	3.5	1.0	0.31	30.0			
		2	4.6	1.1	0.34	30.0			
		3	5.6	1.0	0.31	30.0			
		4	6.7	1.1	0.34	30.0			
		5	7.7	1.0	0.31	30.0			
		6	8.7	1.0	0.31	30.0			
		7	9.8	1.1	0.34	30.0			
		8	10.8	1.0	0.31	30.0			
		9	12.0	1.2	0.37	30.0			
		10	13.0	1.0	0.31	30.0			
5	138 (20.0 psi)	0	9.0	0.0	0.00		2.8		
		1	10.2	1.2	0.37	20.0			
		2	11.4	1.2	0.37	20.0			
		3	12.7	1.3	0.40	20.0			
		4	13.8	1.1	0.34	20.0			
		5	15.2	1.4	0.43	20.0			
		6	16.4	1.2	0.37	20.0			
		7	17.6	1.2	0.37	20.0			
		8	18.9	1.3	0.40	20.0			
		9	20.2	1.3	0.40	20.0			
		10	21.4	1.2	0.37	20.0			
		11	22.6	1.2	0.37	20.0			
		12	23.9	1.3	0.40	20.0			
<b>Calculations</b>									
				<b>Calculations</b>					
				Maximum testing pressure: Pmax = 25H (kPa) kPa in psi, multiplied by 0.14					
				psi in kPa, multiplied by 6.9					
				Q = del B / del t					
				A = Q / Zbottom - Ztop					
				Lu = (avg. A x 1000) / P					
				Lugeon Value used for calc Lu = 2.1					
				Corresponding pressure P (kPa) = 193.1					
				<b>Isotropic Hydraulic Conductivity:</b>					
				Equation (after Bliss and Ruston, 1984): $k = (Q / (2 \times \pi \times L \times h)) \times \ln (L / r)$					
				$k = 2.14E-05 \text{ cm/s}$					
				Interpreted Lugeon pattern (after Housby, 1976, and Quinozes, 2010) <b>LAMINAR</b>					
<b>Calculations by:</b> Amir Niazi				<b>Verified by:</b> Brad Trytten, P.Geo.					



**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 140.60 m Z bottom = 143.82 m		<b>Depth to rock =</b> 7.50 m <b>Water Level:</b> depth (hw) = 0.75 m			<b>Interval Number:</b> 2 <b>Project Number:</b> 11222385 <b>Test Hole:</b> BR21-271 <b>Test Date/Time:</b> 6/13/21 11:30 PM																																																		
<table border="1"> <tr> <th colspan="7">Water Pressure Test</th> </tr> <tr> <td>Drill hole size:</td> <td colspan="6">HQ3</td> </tr> <tr> <td>Borehole diameter:</td> <td>D=</td> <td colspan="5">9.60 cm</td> </tr> <tr> <td>Packer type:</td> <td colspan="6">SINGLE</td> </tr> <tr> <td>Drill rod diameter:</td> <td>d=</td> <td colspan="5">- cm</td> </tr> <tr> <td>Test length:</td> <td>L=</td> <td colspan="5">3.22 m</td> </tr> <tr> <td>Height of gauge above ground:</td> <td colspan="6">0.35 m</td> </tr> </table>							Water Pressure Test							Drill hole size:	HQ3						Borehole diameter:	D=	9.60 cm					Packer type:	SINGLE						Drill rod diameter:	d=	- cm					Test length:	L=	3.22 m					Height of gauge above ground:	0.35 m					
Water Pressure Test																																																							
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Test length:	L=	3.22 m																																																					
Height of gauge above ground:	0.35 m																																																						
<b>Gravity head:</b> H0 = h1 + hw = 1.10 m																																																							
Test no	Pressure P (kPa)	Time t (min)	Reading B (litre)	Flow Q (l/min)	Absorption A (l/min-m)	Pressure Gauge (psi)	Lugeon Value (Lu)																																																
1	138 (20.0 psi)	0	2.0	0.0	0.00		2.7																																																
		1	3.2	1.2	0.37	20.0																																																	
		2	4.5	1.3	0.40	20.0																																																	
		3	5.7	1.2	0.37	20.0																																																	
		4	6.9	1.2	0.37	20.0																																																	
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		8	11.8	1.2	0.37	20.0																																																	
		9	13.0	1.2	0.37	20.0																																																	
2	207 (30.0 psi)	0	9.5	0.0	0.00		1.3																																																
		1	10.2	0.7	0.22	30.0																																																	
		2	11.2	1.0	0.31	30.0																																																	
		3	12.1	0.9	0.28	30.0																																																	
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		13	20.4	0.9	0.28	30.0																																																	
3	276 (40.0 psi)	0	6.0	0.0	0.00		2.0																																																
		1	7.8	1.8	0.56	40.0																																																	
		2	9.4	1.6	0.50	40.0																																																	
		3	11.1	1.7	0.53	40.0																																																	
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		12	26.7	1.8	0.56	40.0																																																	
		13	28.5	1.8	0.56	40.0																																																	
4	207 (30.0 psi)	0	2.5	0.0	0.00		1.6																																																
		1	3.5	1.0	0.31	30.0																																																	
		2	4.6	1.1	0.34	30.0																																																	
		3	5.6	1.0	0.31	30.0																																																	
		4	6.7	1.1	0.34	30.0																																																	
		5	7.7	1.0	0.31	30.0																																																	
		6	8.7	1.0	0.31	30.0																																																	
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		10	13.0	1.0	0.31	30.0																																																	
5	138 (20.0 psi)	0	9.0	0.0	0.00		2.8																																																
		1	10.2	1.2	0.37	20.0																																																	
		2	11.4	1.2	0.37	20.0																																																	
		3	12.7	1.3	0.40	20.0																																																	
		4	13.8	1.1	0.34	20.0																																																	
		5	15.2	1.4	0.43	20.0																																																	
		6	16.4	1.2	0.37	20.0																																																	
		7	17.6	1.2	0.37	20.0																																																	
		8	18.9	1.3	0.40	20.0																																																	
		9	20.2	1.3	0.40	20.0																																																	
		10	21.4	1.2	0.37	20.0																																																	
		11	22.6	1.2	0.37	20.0																																																	
		12	23.9	1.3	0.40	20.0																																																	



Calculations	
Maximum testing pressure:	Pmax = 25H (kPa)
kPa in psi, multiplied by 0.14	
psi in kPa, multiplied by 6.9	
Q = del B / del t	
A = Q / Zbottom - Ztop	
Lu = (avg. A x 1000) / P	
Lugeon Value used for calc Lu =	2.1
Corresponding pressure P (kPa) =	193.1

**Isotropic Hydraulic Conductivity:**

Equation (after Bliss and Ruston, 1984):  
 $k = (Q / (2 \times \pi \times L \times h)) \times \ln (L / r)$

**k = 2.14E-05 cm/s**

Interpreted Lugeon pattern  
 (after Housby, 1976, and Quinozes, 2010) **LAMINAR**

Notes:



**Calculations by:** Amir Niazi **Verified by:** Brad Trytten, P.Geo.

**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 155.60 m Z bottom = 158.82 m		<b>Depth to rock =</b> 7.50 m		<b>Interval Number:</b> 3					
		<b>Water Level:</b> depth (hw) = 0.75 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> BR21-271					
				<b>Test Date/Time:</b> 6/13/21 7:44 PM					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 3.22 m									
Height of gauge above ground: 0.35 m									
Gravity head: H0 = h1 + hw = 1.10 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	138 (20.0 psi)	0	8.5			0.0	0.00		3.6
		1	10.2			1.7	0.53	20.0	
		2	11.7	1.5	0.47	20.0			
		3	13.4	1.7	0.53	20.0			
		4	14.9	1.5	0.47	20.0			
		5	16.5	1.6	0.50	20.0			
		6	18.1	1.6	0.50	20.0			
		7	19.7	1.6	0.50	20.0			
		8							
		9							
10									
2	207 (30.0 psi)	0	1.0	0.0	0.00		1.9		
		1	2.3	1.3	0.40	30.0			
		2	3.6	1.3	0.39	30.0			
		3	4.7	1.2	0.36	30.0			
		4	6.0	1.3	0.40	30.0			
		5	7.2	1.2	0.37	30.0			
		6	8.5	1.3	0.40	30.0			
		7	9.8	1.3	0.40	30.0			
		8	11.1	1.3	0.40	30.0			
		9	12.4	1.3	0.40	30.0			
10									
3	276 (40.0 psi)	0	5.5	0.0	0.00		0.9		
		1	6.3	0.8	0.25	40.0			
		2	7.0	0.7	0.22	40.0			
		3	7.7	0.7	0.22	40.0			
		4	8.6	0.9	0.28	40.0			
		5	9.5	0.9	0.28	40.0			
		6	10.3	0.8	-	40.0			
		7	11.1	0.8	0.25	40.0			
		8	11.9	0.8	0.25	40.0			
		9	12.7	0.8	0.25	40.0			
10									
4	207 (30.0 psi)	0	0.5	0.0	0.00		1.9		
		1	1.7	1.2	0.37	30.0			
		2	2.9	1.2	0.37	30.0			
		3	4.2	1.3	0.40	30.0			
		4	5.5	1.3	0.40	30.0			
		5	6.7	1.2	0.37	30.0			
		6	7.9	1.2	0.37	30.0			
		7	9.2	1.3	0.40	30.0			
		8	10.4	1.2	0.37	30.0			
		9	11.7	1.3	0.40	30.0			
10	13.0	1.3	0.40	30.0					
5	138 (20.0 psi)	0	6.5	0.0	0.00		3.2		
		1	8.1	1.6	0.50	20.0			
		2	9.6	1.5	0.47	20.0			
		3	11.0	1.4	0.43	20.0			
		4	12.4	1.4	0.43	20.0			
		5	13.8	1.4	0.43	20.0			
		6	15.3	1.5	0.47	20.0			
		7	16.7	1.4	0.43	20.0			
		8	18.1	1.4	0.43	20.0			
		9	19.5	1.4	0.43	20.0			
10	20.9	1.4	0.43	20.0					
<b>Calculations</b>				<p>Maximum testing pressure: Pmax = 25H (kPa) kPa in psi, multiplied by 0.14 psi in kPa, multiplied by 6.9 Q = del B / del t A = Q / Zbottom - Ztop Lu = (avg. A x 1000) / P Lugeon Value used for calc Lu = 0.9 Corresponding pressure P (kPa) = 276</p>					
<b>Isotropic Hydraulic Conductivity:</b>				<p>Equation (after Bliss and Ruston, 1984): k = (Q / (2 x pi x L x h)) x ln (L / r)  k = 9.61E-06 cm/s</p>					
<b>Interpreted Lugeon pattern</b>				<b>TURBULENT</b>					
<b>Notes:</b>									
<b>Calculations by:</b> Amir Niazi				<b>Verified by:</b> Brad Trytten, P.Geo.					



**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 185.60 m Z bottom = 188.82 m		<b>Depth to rock =</b> 7.50 m		<b>Interval Number:</b> 4					
		<b>Water Level:</b> depth (hw) = 0.75 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> BR21-271					
				<b>Test Date/Time:</b> 6/13/21 1:07 PM					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 3.22 m									
Height of gauge above ground: 0.34 m									
Gravity head: H0 = h1 + hw = 1.09 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	138 (20.0 psi)	0	8.0			0.0	0.00		6.0
		1	10.7			2.7	0.84	20.0	
		2	13.4	2.7	0.84	20.0			
		3	16.1	2.7	0.84	20.0			
		4	18.8	2.7	0.84	20.0			
		5	21.4	2.6	0.81	20.0			
		6	24.1	2.7	0.84	20.0			
		7	26.9	2.8	0.87	20.0			
		8	29.6	2.7	0.84	20.0			
		9	32.5	2.9	0.90	20.0			
10	35.3	2.8	0.87	20.0					
2	207 (30.0 psi)	0	2.0	0.0	0.00		4.2		
		1	4.7	2.7	0.84	30.0			
		2	7.7	3.0	0.93	30.0			
		3	10.5	2.8	0.87	30.0			
		4	13.2	2.7	0.84	30.0			
		5	16.0	2.8	0.87	30.0			
		6	18.8	2.8	0.87	30.0			
		7	21.3	2.5	0.78	30.0			
		8	24.1	2.8	0.87	30.0			
		9	26.8	2.7	0.84	30.0			
10	29.7	2.9	0.90	30.0					
3	276 (40.0 psi)	0	3.0	0.0	0.00		3.4		
		1	6.1	3.1	0.96	40.0			
		2	9.2	3.1	0.96	40.0			
		3	12.1	2.9	0.90	40.0			
		4	15.1	3.0	0.93	40.0			
		5	18.3	3.2	0.99	40.0			
		6	21.2	2.9	0.90	40.0			
		7	24.1	2.9	0.90	40.0			
		8	27.2	3.1	0.96	40.0			
		9	30.3	3.1	0.96	40.0			
10	33.1	2.8	0.87	40.0					
4	207 (30.0 psi)	0	1.0	0.0	0.00		4.5		
		1	4.1	3.1	0.96	30.0			
		2	7.0	2.9	0.90	30.0			
		3	10.1	3.1	0.96	30.0			
		4	13.1	3.0	0.93	30.0			
		5	16.0	2.9	0.90	30.0			
		6	19.0	3.0	0.93	30.0			
		7	21.9	2.9	0.90	30.0			
		8	24.8	2.9	0.90	30.0			
		9	27.8	3.0	0.93	30.0			
10	30.6	2.8	0.87	30.0					
5	138 (20.0 psi)	0	9.0	0.0	0.00		7.0		
		1	12.2	3.2	0.99	20.0			
		2	15.3	3.1	0.96	20.0			
		3	18.5	3.2	0.99	20.0			
		4	21.5	3.0	0.93	20.0			
		5	24.6	3.1	0.96	20.0			
		6	27.9	3.3	1.02	20.0			
		7	30.9	3.0	0.93	20.0			
		8	33.9	3.0	0.93	20.0			
		9	37.0	3.1	0.96	20.0			
10	39.9	2.9	0.90	20.0					
<b>Calculations</b>				Maximum testing pressure: $P_{max} = 25H$ (kPa) kPa in psi, multiplied by 0.14 psi in kPa, multiplied by 6.9 $Q = \Delta B / \Delta t$ $A = Q / Z_{bottom} - Z_{top}$ $Lu = (avg. A \times 1000) / P$ Lugeon Value used for calc Lu = 3.4 Corresponding pressure P (kPa) = 276					
<b>Isotropic Hydraulic Conductivity:</b>				Equation (after Bliss and Ruston, 1984): $k = (Q / (2 \times \pi \times L \times h)) \times \ln(L / r)$  $k = 3.54E-05 \text{ cm/s}$					
Interpreted Lugeon pattern (after Houltsby, 1976, and Quinozes, 2010)				<b>TURBULENT</b>					
Calculations by: Amir Niazi				Verified by: Brad Trytten, P.Geo.					

**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 224.60 m Z bottom = 227.82 m		<b>Depth to rock =</b> 7.50 m		<b>Interval Number:</b> 4					
		<b>Water Level:</b> depth (hw) = 0.75 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> BR21-271					
				<b>Test Date/Time:</b> 6/13/21 9:13 PM					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 3.22 m									
Height of gauge above ground: 0.34 m									
Gravity head: H0 = h1 + hw = 1.09 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	138 (20.0 psi)	0	4.0			0.0	0.00		5.0
		1	6.5			2.5	0.78	20.0	
		2	9.0	2.5	0.78	20.0			
		3	11.3	2.3	0.71	20.0			
		4	13.5	2.2	0.68	20.0			
		5	15.7	2.2	0.68	20.0			
		6	18.0	2.3	0.71	20.0			
		7	20.2	2.2	0.68	20.0			
		8	22.5	2.3	0.71	20.0			
		9	24.7	2.2	0.68	20.0			
10	27.0	2.3	0.71	20.0					
2	207 (30.0 psi)	0	0.0	0.0	0.00		3.5		
		1	2.4	2.4	0.75	30.0			
		2	4.8	2.4	0.75	30.0			
		3	7.2	2.4	0.75	30.0			
		4	9.5	2.3	0.71	30.0			
		5	11.8	2.3	0.71	30.0			
		6	14.3	2.5	0.78	30.0			
		7	16.7	2.4	0.75	30.0			
		8	19.0	2.3	0.71	30.0			
		9	21.3	2.3	0.71	30.0			
10	23.7	2.4	0.75	30.0					
3	276 (40.0 psi)	0	4.0	0.0	0.00		2.9		
		1	6.5	2.5	0.78	40.0			
		2	8.9	2.4	0.75	40.0			
		3	11.4	2.5	0.78	40.0			
		4	14.0	2.6	0.81	40.0			
		5	16.6	2.6	0.81	40.0			
		6	19.2	2.6	0.81	40.0			
		7	21.7	2.5	0.78	40.0			
		8	24.4	2.7	0.84	40.0			
		9	27.0	2.6	0.81	40.0			
10	29.6	2.6	0.81	40.0					
4	207 (30.0 psi)	0	5.0	0.0	0.00		3.6		
		1	7.6	2.6	0.81	30.0			
		2	9.8	2.2	0.68	30.0			
		3	12.1	2.3	0.71	30.0			
		4	14.6	2.5	0.78	30.0			
		5	17.0	2.4	0.75	30.0			
		6	19.3	2.3	0.71	30.0			
		7	21.7	2.4	0.75	30.0			
		8	24.2	2.5	0.78	30.0			
		9	26.6	2.4	0.75	30.0			
10	29.0	2.4	0.75	30.0					
5	138 (20.0 psi)	0	7.0	0.0	0.00		6.0		
		1	9.5	2.5	0.78	20.0			
		2	11.9	2.4	0.75	20.0			
		3	14.5	2.6	0.81	20.0			
		4	17.4	2.9	0.90	20.0			
		5	19.9	2.5	0.78	20.0			
		6	22.5	2.6	0.81	20.0			
		7	25.1	2.6	0.78	20.0			
		8	27.8	2.7	0.78	20.0			
		9	30.4	2.6	0.78	20.0			
10	33.0	2.6	0.78	20.0					

**Calculations**

Maximum testing pressure:  
 $P_{max} = 25H$  (kPa)  
 kPa in psi, multiplied by 0.14  
 psi in kPa, multiplied by 6.9  
 $Q = \Delta B / \Delta t$   
 $A = Q / Z_{bottom} - Z_{top}$   
 $Lu = (avg. A \times 1000) / P$   
 Lugeon Value used for calc Lu = 2.9  
 Corresponding pressure P (kPa) = 276

**Isotropic Hydraulic Conductivity:**

Equation (after Bliss and Ruston, 1984):  
 $k = (Q / (2 \times \pi \times L \times h)) \times \ln(L / r)$   
**k = 3.04E-05 cm/s**  
 Interpreted Lugeon pattern  
 (after Houltsby, 1976, and Quinozes, 2010) **TURBULENT**

Notes:



**Calculations by:** Amir Niazi **Verified by:** Brad Trytten, P.Geo.

**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 6.55 m Z bottom = 30.18 m		<b>Depth to rock =</b> 4.00 m		<b>Interval Number:</b> 1					
		<b>Water Level:</b> depth (hw) = 0.20 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> MW20B					
				<b>Test Date/Time:</b> 1/25/21 7:40 PM					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.66 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 23.62 m									
Height of gauge above ground: 0.76 m									
Gravity head: H0 = h1 + hw = 0.96 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1		0 1 2 3 4 5 6 7 8 9 10							
2	93 (13.5 psi)	0 1 2 3 4 5 6 7 8 9 10	4.5 5.9 7.1 8.3 9.6 10.9 12.2 13.6 15.3 16.6 17.9			0.0 1.4 1.2 1.2 1.3 1.3 1.4 1.7 1.3 1.3	0.00 0.06 0.05 0.05 0.06 0.06 0.06 0.07 0.06 0.06	13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5	0.6
3	124 (18.0 psi)	0 1 2 3 4 5 6 7 8 9 10	3.0 6.3 9.2 12.0 14.8 17.3 20.2 22.7 25.3 27.6 30.2	0.0 3.3 2.9 2.8 2.8 2.5 2.9 2.5 2.6 2.3 2.6	0.00 0.14 0.12 0.12 0.12 0.11 0.12 0.11 0.11 0.10 0.11	18.0 18.0 18.0 18.0 18.0 18.0 18.0 18.0 18.0 18.0	1.0		
4	93 (13.5 psi)	0 1 2 3 4 5 6 7 8 9 10	1.5 2.5 3.4 4.3 5.2 6.1	0.0 1.0 0.9 0.9 0.9	0.00 0.04 0.04 0.04 0.04	13.5 13.5 13.5 13.5	0.4		
5	62 (9.0 psi)	0 1 2 3 4 5 6 7 8 9 10	5.5 5.6 5.7 5.7	0.0 0.1 0.1 0.0	0.00 0.00 0.00	9.0 9.0 9.0	0.0		
				<b>Calculations</b>					
				Maximum testing pressure: Pmax = 25H (kPa)					
				kPa in psi, multiplied by 0.14					
				psi in kPa, multiplied by 6.9					
				Q = del B / del t					
				A = Q / Zbottom - Ztop					
				Lu = (avg. A x 1000) / P					
				Lugeon Value used for calc Lu = 0.4					
				Corresponding pressure P (kPa) = 93					
				<b>Isotropic Hydraulic Conductivity:</b>					
				Equation (after Bliss and Ruston, 1984): k = (Q / (2 x pi x L x h)) x ln (L / r)					
				k = 6.09E-06 cm/s					
				Interpreted Lugeon pattern (after Houlsby, 1976, and Quinozes, 2010) <b>DILATION</b>					
<b>Calculations by:</b> Amir Niazi				<b>Verified by:</b> Brad Trytten, P.Geo.					

**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 27.34 m Z bottom = 30.57 m		<b>Depth to rock =</b> 3.90 m		<b>Interval Number:</b> 1					
		<b>Water Level:</b> depth (hw) = 0.30 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> BR21-270					
				<b>Test Date/Time:</b> 6/7/21 2:40 AM					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 3.23 m									
Height of gauge above ground: 1.70 m									
Gravity head: H0 = h1 + hw = 2.00 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	83 (12.0 psi)	0	9.0			0.0	0.00		14.0
		1	12.9			3.9	1.21	12.0	
		2	16.6	3.7	1.15	12.0			
		3	20.4	3.8	1.18	12.0			
		4	24.1	3.7	1.15	12.0			
		5	27.8	3.7	1.15	12.0			
		6	31.6	3.8	1.18	12.0			
		7	35.4	3.8	1.18	12.0			
		8	39.3	3.9	1.21	12.0			
		9	43.0	3.7	1.15	12.0			
10	46.9	3.9	1.21	12.0					
2	124 (18.0 psi)	0	0.0	0.0	0.00		5.4		
		1	2.0	2.0	0.62	18.0			
		2	3.9	1.9	0.59	18.0			
		3	5.9	2.0	0.62	18.0			
		4	1.0	0.0	0.00	18.0			
		5	2.8	1.8	0.56	18.0			
		6	4.9	2.1	0.65	18.0			
		7	7.1	2.2	0.68	18.0			
		8	9.3	2.2	0.68	18.0			
		9	11.4	2.1	0.65	18.0			
10	13.5	2.1	0.65	18.0					
3	172 (25.0 psi)	0	9.0	0.0	0.00		3.2		
		1	10.9	1.9	0.59	25.0			
		2	12.7	1.8	0.56	25.0			
		3	14.6	1.9	0.59	25.0			
		4	16.4	1.8	0.56	25.0			
		5	18.3	1.9	0.59	25.0			
		6	19.9	1.6	0.50	25.0			
		7	21.7	1.8	0.56	25.0			
		8	23.5	1.8	0.56	25.0			
		9	25.3	1.8	0.56	25.0			
10	27.0	1.7	0.53	25.0					
4	124 (18.0 psi)	0	6.0	0.0	0.00		5.2		
		1	8.2	2.2	0.68	18.0			
		2	10.3	2.1	0.65	18.0			
		3	12.3	2.0	0.62	18.0			
		4	14.3	2.0	0.62	18.0			
		5	16.5	2.2	0.68	18.0			
		6	18.5	2.0	0.62	18.0			
		7	20.5	2.0	0.62	18.0			
		8	22.5	2.0	0.62	18.0			
		9	24.5	2.0	0.62	18.0			
10	26.6	2.1	0.65	18.0					
5	83 (12.0 psi)	0	8.0	0.0	0.00		7.2		
		1	9.9	1.9	0.59	12.0			
		2	11.9	2.0	0.62	12.0			
		3	13.8	1.9	0.59	12.0			
		4	15.8	2.0	0.62	12.0			
		5	17.7	1.9	0.59	12.0			
		6	19.5	1.8	0.56	12.0			
		7	21.4	1.9	0.59	12.0			
		8	23.3	1.9	0.59	12.0			
		9	25.3	2.0	0.62	12.0			
10	27.2	1.9	0.59	12.0					
<b>Calculations</b>									
Maximum testing pressure: Pmax = 25H (kPa) kPa in psi, multiplied by 0.14 psi in kPa, multiplied by 6.9				<b>Calculations</b>					
Q = del B / del t				Lugeon Value used for calc Lu = 3.2					
A = Q / Zbottom - Ztop				Corresponding pressure P (kPa) = 172					
Lu = (avg. A x 1000) / P				<b>Isotropic Hydraulic Conductivity:</b>					
Lugeon Value used for calc Lu = 3.2				Equation (after Bliss and Ruston, 1984): $k = (Q / (2 \times \pi \times L \times h)) \times \ln (L / r)$					
Corresponding pressure P (kPa) = 172				$k = 3.10E-05 \text{ cm/s}$					
				Interpreted Lugeon pattern (after Houlsby, 1976, and Quinozes, 2010) <b>TURBULENT</b>					
<b>Calculations by:</b> Amir Niazi				<b>Notes:</b>					
<b>Verified by:</b> Brad Trytten, P. Geo.									

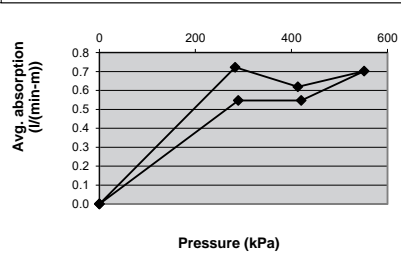


**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 96.37 m Z bottom = 99.57 m		<b>Depth to rock =</b> 3.90 m		<b>Interval Number:</b> 2					
		<b>Water Level:</b> depth (hw) = 0.30 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> BR21-270					
				<b>Test Date/Time:</b> 6/7/21 10:51 AM					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 3.20 m									
Height of gauge above ground: 0.72									
Gravity head: H0 = h1 + hw = 1.02 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	138 (20.0 psi)	0	8.0			0.0	0.00		9.1
		1	11.4			3.4	1.06	20.0	
		2	15.7	4.3	1.34	20.0			
		3	19.8	4.1	1.28	20.0			
		4	23.4	3.6	1.13	20.0			
		5	27.7	4.3	1.34	20.0			
		6	31.7	4.0	1.25	20.0			
		7	35.6	3.9	1.22	20.0			
		8	39.8	4.2	1.31	20.0			
		9	44.0	4.2	1.31	20.0			
10	48.3	4.3	1.34	20.0					
2	207 (30.0 psi)	0	4.0	0.0	0.00		4.9		
		1	7.5	3.5	1.09	30.0			
		2	10.3	2.8	0.88	30.0			
		3	14.2	3.9	1.22	30.0			
		4	17.4	3.2	1.00	30.0			
		5	20.6	3.2	1.00	30.0			
		6	23.8	3.2	1.00	30.0			
		7	27.2	3.4	1.06	30.0			
		8	30.4	3.2	1.00	30.0			
		9	33.6	3.2	1.00	30.0			
10	36.8	3.2	1.00	30.0					
3	283 (41.0 psi)	0	8.0	0.0	0.00		1.9		
		1	10.2	2.2	0.69	41.0			
		2	12.3	2.1	0.66	41.0			
		3	14.4	2.1	0.66	41.0			
		4	16.2	1.8	0.56	41.0			
		5	18.0	1.8	0.56	41.0			
		6	19.8	1.8	0.56	41.0			
		7	21.5	1.7	0.53	41.0			
		8	23.3	1.8	0.56	41.0			
		9	24.7	1.4	0.44	41.0			
10	26.5	1.8	0.56	41.0					
4	207 (30.0 psi)	0	5.0	0.0	0.00		2.8		
		1	7.2	2.2	0.69	30.0			
		2	9.1	1.9	0.59	30.0			
		3	10.8	1.7	0.53	30.0			
		4	12.7	1.9	0.59	30.0			
		5	14.7	2.0	0.63	30.0			
		6	16.7	2.0	0.63	30.0			
		7	18.7	2.0	0.63	30.0			
		8	20.7	2.0	0.63	30.0			
		9	22.7	2.0	0.63	30.0			
10	24.8	2.1	0.66	30.0					
5	138 (20.0 psi)	0	0.0	0.0	0.00		6.4		
		1	2.9	2.9	0.91	20.0			
		2	5.8	2.9	0.91	20.0			
		3	8.6	2.8	0.88	20.0			
		4	11.4	2.8	0.88	20.0			
		5	14.3	2.9	0.91	20.0			
		6	17.3	3.0	0.94	20.0			
		7	20.2	2.9	0.91	20.0			
		8	22.8	2.6	0.81	20.0			
		9	25.5	2.7	0.84	20.0			
10	28.0	2.5	0.78	20.0					
<b>Calculations</b>				<p>Maximum testing pressure: Pmax = 25H (kPa) kPa in psi, multiplied by 0.14 psi in kPa, multiplied by 6.9</p> <p>Q = del B / del t A = Q / Zbottom - Ztop Lu = (avg. A x 1000) / P Lugeon Value used for calc Lu = 1.9 Corresponding pressure P (kPa) = 283</p>					
<b>Isotropic Hydraulic Conductivity:</b>				<p>Equation (after Bliss and Ruston, 1984): k = (Q / (2 x pi x L x h)) x ln (L / r)</p> <p><b>k = 1.99E-05 cm/s</b></p> <p>Interpreted Lugeon pattern (after Houltsby, 1976, and Quinozes, 2010) <b>TURBULENT</b></p>					
<b>Calculations by:</b> Amir Niazi				<b>Notes:</b>					
<b>Verified by:</b> Amir Niazi				Brad Trytten, P. Geo.					

**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 125.74 m Z bottom = 128.97 m		<b>Depth to rock =</b> 3.90 m		<b>Interval Number:</b> 3					
		<b>Water Level:</b> depth (hw) = 0.30 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> BR21-270					
				<b>Test Date/Time:</b> 6/8/21 1:44 AM					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 3.23 m									
Height of gauge above ground: 0.50 m									
Gravity head: H0 = h1 + hw = 0.80 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	290 (42.0 psi)	0	8.5			0.0	0.00	42.0	1.9
		1	10.2			1.7	0.53		
		2	11.8	1.6	0.50				
		3	13.6	1.8	0.56				
		4	15.4	1.8	0.56				
		5	17.1	1.7	0.53				
		6	18.8	1.7	0.53				
		7	20.4	1.6	0.50				
		8	22.2	1.8	0.56				
		9	23.9	1.7	0.53				
10	25.6	1.7	0.53						
2	421 (61.0 psi)	0	6.5	0.0	0.00	61.0	1.3		
		1	8.3	1.8	0.56				
		2	10.1	1.8	0.56				
		3	11.9	1.8	0.56				
		4	13.8	1.9	0.59				
		5	15.7	1.9	0.59				
		6	17.4	1.7	0.53				
		7	19.3	1.9	0.59				
		8	21.0	1.7	0.53				
		9	22.9	1.9	0.59				
10	24.8	1.9	0.59						
3	552 (80.0 psi)	0	0.5	0.0	0.00	80.0	1.3		
		1	2.8	2.3	0.71				
		2	5.0	2.2	0.68				
		3	7.3	2.3	0.71				
		4	9.5	2.2	0.68				
		5	11.9	2.4	0.74				
		6	5.0	-	-				
		7	7.4	2.4	0.74				
		8	9.6	2.2	0.68				
		9	11.8	2.2	0.68				
10	14.2	2.4	0.74						
4	414 (60.0 psi)	0	1.0	0.0	0.00	60.0	1.5		
		1	3.0	2.0	0.62				
		2	5.0	2.0	0.62				
		3	7.0	2.0	0.62				
		4	9.0	2.0	0.62				
		5	0.0	0.0	0.00				
		6	0.0	0.0	0.00				
		7	0.0	0.0	0.00				
		8	0.0	0.0	0.00				
		9	0.0	0.0	0.00				
10	0.0	0.0	0.00						
5	283 (41.0 psi)	0	6.0	0.0	0.00	41.0	2.6		
		1	7.7	1.7	0.53				
		2	8.7	1.0	0.31				
		3	11.7	3.0	0.93				
		4	13.7	2.0	0.62				
		5	15.7	2.0	0.62				
		6	17.7	2.0	0.62				
		7	0.0	0.0	0.00				
		8	0.0	0.0	0.00				
		9	0.0	0.0	0.00				
10	0.0	0.0	0.00						



**Calculations**

Maximum testing pressure:  
 $P_{max} = 25H$  (kPa)  
 kPa in psi, multiplied by 0.14  
 psi in kPa, multiplied by 6.9  
 $Q = \text{del } B / \text{del } t$   
 $A = Q / Z_{bottom} - Z_{top}$   
 $Lu = (\text{avg. } A \times 1000) / P$   
 Lugeon Value used for calc Lu = 1.7  
 Corresponding pressure P (kPa) = 391.6

**Isotropic Hydraulic Conductivity:**

Equation (after Bliss and Ruston, 1984):  
 $k = (Q / (2 \times \pi \times L \times h)) \times \ln(L / r)$   
 $k = 1.82E-05 \text{ cm/s}$

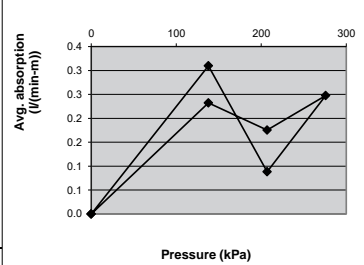
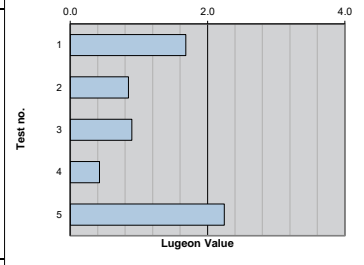
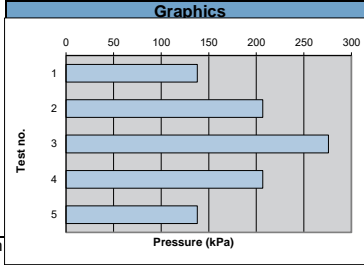
Interpreted Lugeon pattern  
 (after Houlby, 1976, and Quinozes, 2010) **LAMINAR**

Notes:

**Calculations by:** Amir Niazi **Verified by:** Brad Trytten, P.Geo.

**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 201.34 m Z bottom = 204.57 m		<b>Depth to rock =</b> 3.90 m		<b>Interval Number:</b> 4			
		<b>Water Level:</b> depth (hw) = 0.30 m		<b>Project Number:</b> 11222385			
				<b>Test Hole:</b> BR21-270			
				<b>Test Date/Time:</b> 6/8/21 1:44 AM			
				<b>Graphics</b>			
<b>Water Pressure Test</b>							
Drill hole size: HQ3 Borehole diameter: D= 9.60 cm Packer type: SINGLE Drill rod diameter: d= - cm Test length: L= 3.23 m Height of gauge above ground: 0.50 m							
Gravity head: $H_0 = h_1 + h_w = 0.80$ m							
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>
1	138 (20.0 psi)	0	3.0	0.0	0.00		1.7
		1	3.7	0.7	0.22	20.0	
		2	4.4	0.6	0.20	20.0	
		3	5.1	0.8	0.23	20.0	
		4	5.8	0.7	0.22	20.0	
		5	6.6	0.8	0.25	20.0	
		6	7.3	0.7	0.22	20.0	
		7	8.1	0.8	0.25	20.0	
		8	9.0	0.9	0.28	20.0	
		9	9.7	0.7	0.22	20.0	
		10	10.3	0.6	0.19	20.0	
		11	11.1	0.8	0.25	20.0	
12	11.9	0.8	0.25	20.0			
2	207 (30.0 psi)	0	7.0	0.0	0.00		0.8
		1	7.6	0.6	0.19	30.0	
		2	8.2	0.6	0.19	30.0	
		3	8.8	0.6	0.19	30.0	
		4	9.5	0.7	0.22	30.0	
		5	10.2	0.7	0.22	30.0	
		6	10.8	0.6	0.19	30.0	
		7	11.5	0.7	0.22	30.0	
		8	11.7	0.2	0.06	30.0	
		9	12.4	0.7	0.22	30.0	
		10	12.8	0.4	0.12	30.0	
		11	13.4	0.6	0.19	30.0	
		12	13.9	0.5	0.15	30.0	
13	14.4	0.5	0.15	30.0			
3	276 (40.0 psi)	0	1.0	0.0	0.00		0.9
		1	1.7	0.7	0.22	40.0	
		2	2.6	0.9	0.28	40.0	
		3	3.4	0.8	0.25	40.0	
		4	4.2	0.8	0.25	40.0	
		5	5.0	0.8	0.25	40.0	
		6	5.8	0.8	0.25	40.0	
		7					
		8					
		9					
10							
4	207 (30.0 psi)	0	7.1	0.0	0.00		0.4
		1	7.4	0.3	0.08	30.0	
		2	7.8	0.5	0.14	30.0	
		3	7.8	0.0	0.00	30.0	
		4	8.2	0.4	0.12	30.0	
		5	8.5	0.3	0.09	30.0	
		6	8.6	0.1	0.03	30.0	
		7	8.8	0.2	0.06	30.0	
		8	9.2	0.4	0.12	30.0	
		9	9.7	0.5	0.15	30.0	
		10	10.1	0.4	0.12	30.0	
		11	10.3	0.2	0.06	30.0	
		12	10.6	0.3	0.09	30.0	
		13	10.8	0.2	0.06	30.0	
		14	11.2	0.4	0.12	30.0	
15	11.5	0.3	0.09	30.0			
5	138 (20.0 psi)	0	8.5	0.0	0.00		2.2
		1	9.2	0.7	0.22	20.0	
		2	10.2	1.0	0.31	20.0	
		3	11.2	1.0	0.31	20.0	
		4	12.2	1.0	0.31	20.0	
		5	13.2	1.0	0.31	20.0	
		6	14.2	1.0	0.31	20.0	
		7					
		8					
		9					
10							
<b>Calculations by:</b> Amir Niazi				<b>Verified by:</b> Brad Trytten, P. Geo.			



**Calculations**

Maximum testing pressure:  
 $P_{max} = 25H$  (kPa)  
 kPa in psi, multiplied by 0.14  
 psi in kPa, multiplied by 6.9  
 $Q = \Delta B / \Delta t$   
 $A = Q / Z_{bottom} - Z_{top}$   
 $Lu = (avg. A \times 1000) / P$   
 Lugeon Value used for calc Lu = 0.9  
 Corresponding pressure P (kPa) = 207

**Isotropic Hydraulic Conductivity:**

Equation (after Bliss and Ruston, 1984):  
 $k = (Q / (2 \times \pi \times L \times h)) \times \ln(L / r)$

$k = 9.43E-06$  cm/s

Interpreted Lugeon pattern  
 (after Houlsby, 1976, and Quinozes, 2010) **LAMINAR**

Notes:



**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

Testing depth		Depth to rock = 4.72 m					Interval Number: 1	
Z top (H) = 18.31 m		Water Level:					Project Number: 11222385	
Z bottom = 21.09 m		depth (hw) = 1.22 m					Test Hole: MW21B	
							Test Date/Time: 11/26/21	
Water Pressure Test								Graphics
Drill hole size: HQ3								
Borehole diameter: D= 9.60 cm								
Packer type: SINGLE								
Drill rod diameter: d= - cm								
Test length: L= 2.78 m								
Height of gauge above ground: 0.72								
Gravity head:								
H0 = h1 + hw = 1.94 m								
Test no	Pressure P (kPa)	Time t (min)	Reading B (litre)	Flow Q (l/min)	Absorption A (l/min-m)	Pressure Gauge (psi)	Lugeon Value (Lu)	
1	69 (10.0 psi)	0 1 2 3 4 5 6 7 8 9 10	5.7 7.6 8.4 9.2 9.9 10.6 11.4 12.1 12.7 13.4 14.2	0.0 1.9 0.8 0.8 0.8 0.7 0.7 0.7 0.6 0.7	0.00 0.68 0.29 0.29 0.27 0.26 0.26 0.26 0.23 0.26	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	3.8	
2	103 (15.0 psi)	0 1 2 3 4 5 6 7 8 9 10	16.7 17.9 19.0 20.1 21.2 22.3 23.5 24.6 25.6 26.6 27.7	0.0 1.2 1.1 1.1 1.1 1.1 1.1 1.1 1.0 1.0 1.0	0.00 0.44 0.41 0.41 0.38 0.41 0.41 0.41 0.37 0.37 0.37	15.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0	3.8	
3	138 (20.0 psi)	0 1 2 3 4 5 6 7 8 9 10 11	30.3 32.0 33.6 35.1 36.5 38.0 39.5 41.0 42.5	0.0 1.7 1.6 1.5 1.5 1.5 1.5 1.5 1.6	0.00 0.61 0.57 0.53 0.53 0.53 0.53 0.53 0.56	20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0	3.9	
4	103 (15.0 psi)	0 1 2 3 4 5 6 7 8 9 10	44.3 45.2 46.2 47.2 48.3 49.3 50.3 51.3	0.0 0.9 0.9 1.1 1.0 1.0 1.0 1.0	0.00 0.34 0.34 0.38 0.37 0.37 0.37 0.37	15.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0	3.6	
5	69 (10.0 psi)	0 1 2 3 4 5 6 7 8 9 10	52.0 52.5 53.0 53.6 54.2 54.9 55.5 56.1 56.8	0.0 0.5 0.5 0.6 0.6 0.6 0.6 0.6	0.00 0.18 0.16 0.20 0.23 0.23 0.23 0.23	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	3.3	
<b>Calculations</b> Maximum testing pressure: Pmax = 25H (kPa) kPa in psi, multiplied by 0.14 psi in kPa, multiplied by 6.9 $Q = \Delta B / \Delta t$ $A = Q / Z_{bottom} - Z_{top}$ $Lu = (avg. A \times 1000) / P$ Lugeon Value used for calc Lu = 3.7 Corresponding pressure P (kPa) = 96.5								
<b>Isotropic Hydraulic Conductivity:</b>  Equation (after Bliss and Ruston, 1984): $k = (Q / (2 \times \pi \times L \times h)) \times \ln(L / r)$  $k = 3.23E-05 \text{ cm/s}$  Interpreted Lugeon pattern (after Hously, 1976, and Quinozes, 2010) <b>LAMINAR</b>								
Calculations by: Amir Niazi								Verified by: Brad Trytten, P.Geo.

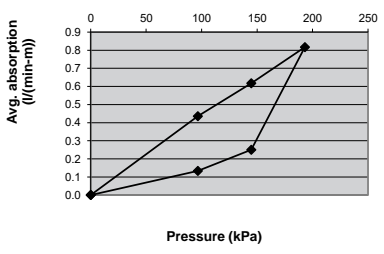
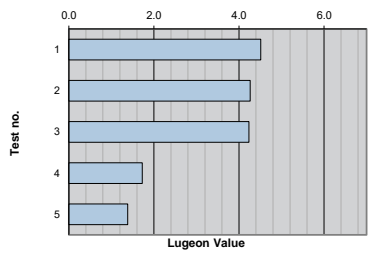
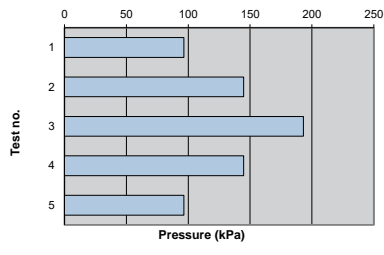


**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 7.82 m Z bottom = 10.60 m		<b>Depth to rock =</b> 4.72 m		<b>Interval Number:</b> 2					
		<b>Water Level:</b> depth (hw) = 1.22 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> MW21B					
				<b>Test Date/Time:</b> 11/26/21					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 2.78 m									
Height of gauge above ground: 0.72									
Gravity head: H0 = h1 + hw = 1.94 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	69 (10.0 psi)	0	20.8			0.0	0.00		1.4
		1	21.1			0.3	0.11	10.0	
		2	21.4	0.3	0.10	10.0			
		3	21.7	0.3	0.11	10.0			
		4	22.0	0.3	0.10	10.0			
		5	22.3	0.4	0.14	10.0			
		6	22.6	0.2	0.08	10.0			
		7	22.8	0.2	0.08	10.0			
		8	23.0	0.2	0.08	10.0			
		9	23.2	0.2	0.08	10.0			
		10							
2	103 (15.0 psi)	0	24.0	0.0	0.00		1.4		
		1	24.6	0.5	0.19	15.0			
		2	25.0	0.4	0.15	15.0			
		3	25.4	0.4	0.14	15.0			
		4	25.7	0.4	0.14	15.0			
		5	26.1	0.4	0.14	15.0			
		6	26.5	0.4	0.14	15.0			
		7	27.0	0.5	0.16	15.0			
		8	27.3	0.4	0.14	15.0			
		9	27.7	0.4	0.14	15.0			
		10	28.1	0.4	0.14	15.0			
3	138 (20.0 psi)	0	29.1	0.0	0.00		1.4		
		1	29.7	0.6	0.20	20.0			
		2	30.3	0.6	0.20	20.0			
		3	30.9	0.6	0.20	20.0			
		4	31.3	0.5	0.18	20.0			
		5	31.9	0.5	0.19	20.0			
		6	32.4	0.5	0.19	20.0			
		7	32.9	0.5	0.19	20.0			
		8	33.5	0.5	0.19	20.0			
		9							
		10							
		11							
4	103 (15.0 psi)	0	33.7	0.0	0.00		1.2		
		1	34.1	0.4	0.14	15.0			
		2	34.4	0.3	0.12	15.0			
		3	34.8	0.4	0.14	15.0			
		4	35.1	0.3	0.12	15.0			
		5	35.5	0.3	0.12	15.0			
		6	35.8	0.3	0.12	15.0			
		7	36.2	0.3	0.12	15.0			
		8							
		9							
		10							
5	69 (10.0 psi)	0	36.3	0.0	0.00		1.1		
		1	36.5	0.2	0.07	10.0			
		2	36.7	0.2	0.07	10.0			
		3	36.9	0.2	0.07	10.0			
		4	37.1	0.2	0.07	10.0			
		5	37.4	0.3	0.10	10.0			
		6	37.6	0.2	0.07	10.0			
		7	37.8	0.3	0.10	10.0			
		8	38.0	0.2	0.08	10.0			
		9	38.2	0.2	0.07	10.0			
		10	38.4	0.2	0.07	10.0			
<b>Calculations by:</b> Amir Niazi				<b>Calculations</b>					
				Maximum testing pressure: Pmax = 25H (kPa)					
				kPa in psi, multiplied by 0.14					
				psi in kPa, multiplied by 6.9					
				Q = del B / del t					
				A = Q / Zbottom - Ztop					
				Lu = (avg. A x 1000) / P					
				Lugeon Value used for calc Lu = 1.3					
				Corresponding pressure P (kPa) = 96.5					
				<b>Isotropic Hydraulic Conductivity:</b>					
				Equation (after Bliss and Ruston, 1984): $k = (Q / (2 \times \pi \times L \times h)) \times \ln (L / r)$					
				<b>k = 1.15E-05 cm/s</b>					
				Interpreted Lugeon pattern (after Hously, 1976, and Quinozes, 2010) <b>LAMINAR</b>					
				Notes:					
<b>Verified by:</b> Amir Niazi				<b>Brad Trytten, P.Geo.</b>					

**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 26.34 m Z bottom = 29.12 m		<b>Depth to rock =</b> 11.73 m			<b>Interval Number:</b> 1		
		<b>Water Level:</b> depth (hw) = 2.10 m			<b>Project Number:</b> 11222385		
					<b>Test Hole:</b> MW23B		
					<b>Test Date/Time:</b> 12/01/21		
<b>Graphics</b>							
<b>Water Pressure Test</b>							
Drill hole size: HQ3							
Borehole diameter: D= 9.60 cm							
Packer type: SINGLE							
Drill rod diameter: d= - cm							
Test length: L= 2.78 m							
Height of gauge above ground: 0.82							
<b>Gravity head:</b> H0 = h1 + hw = 2.92 m							
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>	<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	97 (14.0 psi)	0	13.2	0.0	0.00		4.5
		1	15.7	2.5	0.90	14.0	
		2	17.4	1.7	0.60	14.0	
		3	18.7	1.3	0.48	14.0	
		4	20.0	1.2	0.45	14.0	
		5	21.2	1.2	0.44	14.0	
		6	22.4	1.2	0.44	14.0	
		7	23.5	1.1	0.38	14.0	
		8	24.5	1.1	0.38	14.0	
		9	25.6	1.1	0.38	14.0	
10	26.6	1.1	0.38	14.0			
2	145 (21.0 psi)	0	28.4	0.0	0.00		4.3
		1	30.5	2.2	0.78	21.0	
		2	32.6	2.0	0.72	21.0	
		3	34.6	2.1	0.75	21.0	
		4	36.3	1.7	0.61	21.0	
		5	38.0	1.6	0.59	21.0	
		6	39.6	1.6	0.59	21.0	
		7	41.2	1.6	0.59	21.0	
		8	42.9	1.6	0.59	21.0	
		9					
10							
3	193 (28.0 psi)	0	45.4	0.0	0.00		4.2
		1	48.1	2.7	0.97	28.0	
		2	50.7	2.6	0.94	28.0	
		3	53.0	2.3	0.82	28.0	
		4	55.3	2.3	0.82	28.0	
		5	57.5	2.3	0.82	28.0	
		6	59.8	2.3	0.82	28.0	
		7					
		8					
		9					
		10					
11							
4	145 (21.0 psi)	0	60.9	0.0	0.00		1.7
		1	62.3	1.3	0.48	21.0	
		2	63.4	1.1	0.41	21.0	
		3	64.3	0.9	0.31	21.0	
		4	64.8	0.6	0.20	21.0	
		5	65.5	0.6	0.23	21.0	
		6	66.1	0.6	0.20	21.0	
		7	66.6	0.6	0.20	21.0	
		8	67.2	0.6	0.20	21.0	
		9					
10							
5	97 (14.0 psi)	0	67.6	0.0	0.00		1.4
		1	67.8	0.3	0.10	14.0	
		2	68.2	0.3	0.12	14.0	
		3	68.6	0.4	0.14	14.0	
		4	68.9	0.3	0.12	14.0	
		5	69.3	0.4	0.14	14.0	
		6	69.7	0.4	0.14	14.0	
		7	70.0	0.4	0.14	14.0	
		8					
		9					
10							
<b>Calculations by:</b> Amir Niazi				<b>Verified by:</b> Brad Trytten, P.Geo.			



**Calculations**

Maximum testing pressure:  
Pmax = 25H (kPa)

kPa in psi, multiplied by 0.14

psi in kPa, multiplied by 6.9

$Q = \Delta B / \Delta t$

$A = Q / Z_{bottom} - Z_{top}$

$Lu = (avg. A \times 1000) / P$

Lugeon Value used for calc Lu = 1.4

Corresponding pressure P (kPa) = 96.5

**Isotropic Hydraulic Conductivity:**

Equation (after Bliss and Ruston, 1984):  
 $k = (Q / (2 \times \pi \times L \times h)) \times \ln(L / r)$

**k = 1.12E-05 cm/s**

Interpreted Lugeon pattern  
(after Housley, 1976, and Quinozes, 2010) **VOID FILLING**

Notes:



**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

Testing depth		Depth to rock = 11.73 m					Interval Number: 2	
Z top (H) = 15.32 m		Water Level:					Project Number: 11222385	
Z bottom = 18.10 m		depth (hw) = 2.10 m					Test Hole: MW23B	
							Test Date/Time: 12/01/21	
Water Pressure Test								Graphics
Drill hole size: HQ3								
Borehole diameter: D= 9.60 cm								
Packer type: SINGLE								
Drill rod diameter: d= - cm								
Test length: L= 2.78 m								
Height of gauge above ground: 0.82								
Gravity head: H0 = h1 + hw = 2.92 m								
Test no	Pressure P (kPa)	Time t (min)	Reading B (litre)	Flow Q (l/min)	Absorption A (l/min-m)	Pressure Gauge (psi)	Lugeon Value (Lu)	
1	55 (8.0 psi)	0	32.6	0.0	0.00		1.8	
		1	32.7	0.2	0.07	8.0		
		2	32.9	0.2	0.07	8.0		
		3	33.3	0.4	0.14	8.0		
		4	33.6	0.3	0.11	8.0		
		5	33.9	0.3	0.10	8.0		
		6	34.1	0.2	0.07	8.0		
		7	34.3	0.2	0.08	8.0		
		8	34.5	0.2	0.08	8.0		
		9	34.8	0.2	0.08	8.0		
10	35.0	0.2	0.08	8.0				
2	83 (12.0 psi)	0	36.0	0.0	0.00		1.7	
		1	36.3	0.4	0.14	12.0		
		2	36.7	0.4	0.14	12.0		
		3	37.1	0.4	0.14	12.0		
		4	37.6	0.5	0.16	12.0		
		5	37.9	0.3	0.12	12.0		
		6	38.3	0.4	0.14	12.0		
		7	38.6	0.4	0.14	12.0		
		8	39.0	0.4	0.14	12.0		
		9	39.4	0.4	0.14	12.0		
10								
3	110 (16.0 psi)	0	40.5	0.0	0.00		1.7	
		1	41.1	0.6	0.20	16.0		
		2	41.6	0.5	0.18	16.0		
		3	42.0	0.5	0.16	16.0		
		4	42.4	0.4	0.14	16.0		
		5	43.0	0.6	0.20	16.0		
		6	43.5	0.5	0.18	16.0		
		7	43.9	0.5	0.16	16.0		
		8	44.3	0.4	0.14	16.0		
		9	44.8	0.5	0.18	16.0		
		10	45.2	0.5	0.16	16.0		
11								
4	83 (12.0 psi)	0	45.4	0.0	0.00		1.5	
		1	45.5	0.1	0.04	12.0		
		2	46.0	0.5	0.16	12.0		
		3	46.3	0.3	0.10	12.0		
		4	46.6	0.4	0.14	12.0		
		5	47.0	0.4	0.14	12.0		
		6	47.3	0.3	0.11	12.0		
		7	47.7	0.4	0.14	12.0		
		8	48.0	0.3	0.11	12.0		
		9	48.3	0.3	0.11	12.0		
10	48.6	0.3	0.11	12.0				
5	55 (8.0 psi)	0	48.6	0.0	0.00		0.0	
		1	48.6	0.0	0.00	8.0		
		2	48.6	0.0	0.00	8.0		
		3	48.6	0.0	0.00	8.0		
		4						
		5						
		6						
		7						
		8						
		9						
10								
<b>Calculations</b>								
Maximum testing pressure: Pmax = 25H (kPa)								
kPa in psi, multiplied by 0.14								
psi in kPa, multiplied by 6.9								
Q = del B / del t								
A = Q / Zbottom - Ztop								
Lu = (avg. A x 1000) / P								
Lugeon Value used for calc Lu = 1.7								
Corresponding pressure P (kPa) = 82.7								
<b>Isotropic Hydraulic Conductivity:</b>								
Equation (after Bliss and Ruston, 1984): k = (Q / (2 x pi x L x h)) x ln (L / r)								
k = 1.30E-05 cm/s								
Interpreted Lugeon pattern (after Hously, 1976, and Quinozes, 2010) LAMINAR								
Notes:								
Calculations by: Amir Niazi								
Verified by: Brad Trytten, P.Geo.								

**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 22.66 m Z bottom = 25.44 m		<b>Depth to rock =</b> 2.48 m		<b>Interval Number:</b> 1					
		<b>Water Level:</b> depth (hw) = 2.10 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> MW26B					
				<b>Test Date/Time:</b> 10/02/21					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 2.78 m									
Height of gauge above ground: 0.80									
Gravity head: H0 = h1 + hw = 2.90 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	152 (22.0 psi)	0	112.0			0.0	0.00		0.8
		1	112.2			0.2	0.07	22.0	
		2	112.4	0.2	0.07	22.0			
		3	112.8	0.4	0.14	22.0			
		4	113.2	0.4	0.14	22.0			
		5	113.5	0.3	0.12	22.0			
		6	113.8	0.2	0.08	22.0			
		7	114.1	0.4	0.14	22.0			
		8	114.5	0.4	0.14	22.0			
		9	114.9	0.4	0.14	22.0			
		10	115.3	0.4	0.14	22.0			
2	193 (28.0 psi)	0	118.1	0.0	0.00		0.3		
		1	118.3	0.2	0.07	28.0			
		2	118.5	0.2	0.07	28.0			
		3	118.7	0.2	0.07	28.0			
		4	118.9	0.2	0.07	28.0			
		5	118.9	0.1	0.03	28.0			
		6	119.1	0.1	0.04	28.0			
		7	119.2	0.1	0.04	28.0			
		8	119.2	0.1	0.03	28.0			
		9	119.3	0.1	0.03	28.0			
		10	119.4	0.1	0.04	28.0			
3	234 (34.0 psi)	0	122.8	0.0	0.00		0.9		
		1	123.2	0.4	0.14	34.0			
		2	123.8	0.6	0.20	34.0			
		3	124.4	0.6	0.20	34.0			
		4	124.9	0.6	0.20	34.0			
		5	125.5	0.6	0.20	34.0			
		6	126.1	0.6	0.20	34.0			
		7	126.6	0.6	0.20	34.0			
		8	127.2	0.6	0.20	34.0			
		9	127.8	0.6	0.20	34.0			
		10	128.1	0.4	0.14	34.0			
4	193 (28.0 psi)	0	14.6	0.0	0.00		1.2		
		1	14.8	0.2	0.07	28.0			
		2	15.0	0.2	0.07	28.0			
		3	15.5	0.6	0.20	28.0			
		4	16.1	0.6	0.20	28.0			
		5	16.7	0.6	0.20	28.0			
		6	17.4	0.8	0.27	28.0			
		7	18.2	0.8	0.27	28.0			
		8	18.9	0.7	0.25	28.0			
		9	19.6	0.8	0.27	28.0			
		10	20.4	0.8	0.27	28.0			
5	152 (22.0 psi)	0	20.0	0.0	0.00		0.9		
		1	20.1	0.1	0.03	22.0			
		2	20.1	0.1	0.03	22.0			
		3	20.2	0.1	0.03	22.0			
		4	20.4	0.2	0.05	22.0			
		5	20.7	0.4	0.14	22.0			
		6	21.6	0.8	0.30	22.0			
		7	22.0	0.4	0.14	22.0			
		8	22.4	0.5	0.16	22.0			
		9	22.9	0.5	0.16	22.0			
		10	23.3	0.5	0.16	22.0			
<b>Calculations by:</b> Amir Niazi				<b>Calculations</b>					
				Maximum testing pressure: Pmax = 25H (kPa)					
				kPa in psi, multiplied by 0.14					
				psi in kPa, multiplied by 6.9					
				Q = del B / del t					
				A = Q / Zbottom - Ztop					
				Lu = (avg. A x 1000) / P					
				Lugeon Value used for calc Lu = 1					
				Corresponding pressure P (kPa) = 185					
				<b>Isotropic Hydraulic Conductivity:</b>					
				Equation (after Bliss and Ruston, 1984): k = (Q / (2 x pi x L x h)) x ln (L / r)					
				<b>k = 7.37E-06 cm/s</b>					
				Interpreted Lugeon pattern (after Hously, 1976, and Quinozes, 2010) <b>LAMINAR</b>					
				Notes:					
<b>Verified by:</b> Brad Trytten, P.Geo.									



**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 16.66 m Z bottom = 19.44 m		<b>Depth to rock =</b> 2.48 m		<b>Interval Number:</b> 2						
		<b>Water Level:</b> depth (hw) = 2.10 m		<b>Project Number:</b> 11222385						
				<b>Test Hole:</b> MW26B						
				<b>Test Date/Time:</b> 10/02/21						
<b>Water Pressure Test</b>				<b>Graphics</b>						
Drill hole size: HQ3										
Borehole diameter: D= 9.60 cm										
Packer type: SINGLE										
Drill rod diameter: d= - cm										
Test length: L= 2.78 m										
Height of gauge above ground: 0.80										
Gravity head: H0 = h1 + hw = 2.90 m										
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>	
1	124 (18.0 psi)	0	11.2			0.0	0.00	18.0	0.4	
		1	11.4			0.2	0.07			
		2	11.5	0.2	0.07					
		3	11.7	0.1	0.04					
		4	11.8	0.2	0.05					
		5	11.9	0.1	0.04					
		6	12.1	0.2	0.07					
		7	12.3	0.2	0.07					
		8	12.5	0.2	0.07					
		9	12.5	0.0	0.01					
10	12.6	0.1	0.03							
2	152 (22.0 psi)	0	13.4	0.0	0.00	22.0	0.4			
		1	13.6	0.2	0.07					
		2	13.7	0.2	0.05					
		3	13.8	0.1	0.04					
		4	14.0	0.2	0.07					
		5	14.2	0.2	0.05					
		6	14.3	0.2	0.05					
		7	14.6	0.3	0.10					
		8	14.8	0.2	0.07					
		9	14.9	0.1	0.04					
10	15.0	0.2	0.05							
3	179 (26.0 psi)	0	15.5	0.0	0.00	26.0	0.2			
		1	15.6	0.0	0.01					
		2	15.6	0.0	0.01					
		3	15.7	0.1	0.04					
		4	15.8	0.1	0.04					
		5	15.9	0.1	0.03					
		6	16.0	0.1	0.03					
		7	16.1	0.1	0.04					
		8	16.2	0.1	0.04					
		9	16.3	0.1	0.03					
10	16.4	0.1	0.03							
4	152 (22.0 psi)	0	16.4	0.0	0.00	22.0	0.2			
		1	16.4	0.0	0.01					
		2	16.6	0.2	0.07					
		3	16.6	0.0	0.00					
		4	16.6	0.0	0.00					
		5	16.6	0.0	0.00					
		6								
		7								
		8								
		9								
10										
5	124 (18.0 psi)	0	16.7	0.0	0.00	18.0	0.0			
		1	16.7	0.0	0.00					
		2	16.7	0.0	0.00					
		3	16.7	0.0	0.00					
		4	16.7	0.0	0.00					
		5								
		6								
		7								
		8								
		9								
10										
<b>Calculations</b>										
Maximum testing pressure: Pmax = 25H (kPa)				<b>Calculations</b> Maximum testing pressure: Pmax = 25H (kPa) kPa in psi, multiplied by 0.14 psi in kPa, multiplied by 6.9 Q = del B / del t A = Q / Zbottom - Ztop Lu = (avg. A x 1000) / P Lugeon Value used for calc Lu = 0.2 Corresponding pressure P (kPa) = 179						
				<b>Isotropic Hydraulic Conductivity:</b>						
				Equation (after Bliss and Ruston, 1984): $k = (Q / (2 \times \pi \times L \times h)) \times \ln (L / r)$  $k = 1.72E-06 \text{ cm/s}$						
				Interpreted Lugeon pattern (after Hously, 1976, and Quinozes, 2010) <b>VOID FILLING</b>						
<b>Calculations by:</b> Amir Niazi				<b>Notes:</b>						
<b>Verified by:</b> Brad Trytten, P.Geo.										

**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

Testing depth		Depth to rock = 2.50 m		Interval Number: 1					
Z top (H) = 53.40 m		Water Level:		Project Number: 11222385					
Z bottom = 56.62 m		depth (hw) = 5.70 m		Test Hole: BR21-273					
				Test Date/Time: 6/25/21 2:17 PM					
Water Pressure Test				Graphics					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 3.22 m									
Height of gauge above ground: 0.50 m									
Gravity head: H0 = h1 + hw = 6.20 m									
Test no	Pressure P (kPa)	Time t (min)	Reading B (litre)			Flow Q (l/min)	Absorption A (l/min-m)	Pressure Gauge (psi)	Lugeon Value (Lu)
1	138 (20.0 psi)	0	7.0			0.0	0.00		6.5
		1	10.1			3.1	0.96	20.0	
		2	12.9	2.8	0.87	20.0			
		3	15.8	2.9	0.90	20.0			
		4	18.5	2.7	0.84	20.0			
		5	21.3	2.8	0.87	20.0			
		6	24.6	3.3	1.02	20.0			
		7	27.5	2.9	0.90	20.0			
		8	30.0	2.5	0.78	20.0			
		9	32.8	2.8	0.87	20.0			
		10	35.6	2.8	0.87	20.0			
		11	38.7	3.1	0.96	20.0			
		12	41.7	3.0	0.93	20.0			
13	44.8	3.1	0.96	20.0					
2	207 (30.0 psi)	0	1.0	0.0	0.00		6.1		
		1	3.5	2.5	0.78	30.0			
		2	6.1	2.6	0.81	30.0			
		3	8.5	2.4	0.75	30.0			
		4	11.1	2.6	0.81	30.0			
		5	13.6	2.5	0.78	30.0			
		6	15.7	2.1	0.65	30.0			
		7	27.9	12.2	3.79	30.0			
		8	30.3	2.4	0.75	30.0			
		9	32.7	2.4	0.75	30.0			
		10	34.9	2.2	0.68	30.0			
11	37.3	2.4	0.75	30.0					
3	276 (40.0 psi)	0	0.0	0.0	0.00		2.7		
		1	2.3	2.3	0.71	40.0			
		2	4.8	2.5	0.78	40.0			
		3	7.2	2.4	0.75	40.0			
		4	9.6	2.4	0.75	40.0			
		5	12.0	2.4	0.75	40.0			
		6							
		7							
		8							
		9							
10									
4	207 (30.0 psi)	0	7.5	0.0	0.00		3.9		
		1	10.2	2.7	0.84	30.0			
		2	12.8	2.6	0.81	30.0			
		3	15.4	2.6	0.81	30.0			
		4	18.0	2.6	0.81	30.0			
		5							
		6							
		7							
		8							
		9							
		10							
		11							
12									
5	138 (20.0 psi)	0	7.0	0.0	0.00		6.2		
		1	9.7	2.7	0.84	20.0			
		2	12.5	2.8	0.87	20.0			
		3	15.2	2.7	0.84	20.0			
		4	17.9	2.7	0.84	20.0			
		5	20.7	2.8	0.87	20.0			
		6	23.5	2.8	0.87	20.0			
		7	26.3	2.8	0.87	20.0			
		8	29.1	2.8	0.87	20.0			
		9							
		10							
Calculations				Isotropic Hydraulic Conductivity:					
Maximum testing pressure: Pmax = 25H (kPa)				k = (Q / (2 x π x L x h)) x ln (L / r)					
kPa in psi, multiplied by 0.14				k = 2.44E-05 cm/s					
psi in kPa, multiplied by 6.9				Interpreted Lugeon pattern (after Houltsby, 1976, and Quinozes, 2010) <b>TURBULENT</b>					
Q = del B / del t				Notes:					
A = Q / Zbottom - Ztop									
Lu = (avg. A x 1000) / P									
Lugeon Value used for calc Lu = 2.7				Verified by: Brad Trytten, P.Geo.					
Corresponding pressure P (kPa) = 276									

**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 149.40 m Z bottom = 152.62 m		<b>Depth to rock =</b> 2.50 m		<b>Interval Number:</b> 2					
		<b>Water Level:</b> depth (hw) = 5.70 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> BR21-273					
				<b>Test Date/Time:</b> 6/25/21 8:30 AM					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 3.22 m									
Height of gauge above ground: 0.50 m									
Gravity head: H0 = h1 + hw = 6.20 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	138 (20.0 psi)	0	1.0			0.0	0.00	20.0	4.6
		1	3.0			2.0	0.62		
		2	5.1	2.1	0.65				
		3	7.2	2.1	0.65				
		4	9.2	2.0	0.62				
		5	11.2	2.0	0.62				
		6	13.3	2.1	0.65				
		7	15.3	2.0	0.62				
		8	17.4	2.1	0.65				
		9	19.4	2.0	0.62				
10	21.2	1.8	0.56						
2	207 (30.0 psi)	0	6.5	0.0	0.00	30.0	3.7		
		1	8.9	2.4	0.75				
		2	11.3	2.4	0.75				
		3	13.7	2.4	0.75				
		4	16.3	2.6	0.81				
		5	18.6	2.3	0.71				
		6	20.6	2.0	0.62				
		7	23.3	2.7	0.84				
		8	26.0	2.7	0.84				
		9	28.4	2.4	0.75				
10	30.7	2.3	0.71						
3	276 (40.0 psi)	0	7.0	0.0	0.00	40.0	2.6		
		1	9.3	2.3	0.71				
		2	11.5	2.2	0.68				
		3	13.9	2.4	0.75				
		4	16.3	2.4	0.75				
		5	18.5	2.2	0.68				
		6	20.8	2.3	0.71				
		7	23.2	2.4	0.75				
		8	25.6	2.4	0.75				
		9	27.7	2.1	0.65				
		10	30.0	2.3	0.71				
11	32.2	2.2	0.68						
4	207 (30.0 psi)	0	8.0	0.0	0.00	30.0	3.5		
		1	10.3	2.3	0.71				
		2	12.6	2.3	0.71				
		3	14.9	2.3	0.71				
		4	17.2	2.3	0.71				
		5							
		6							
		7							
		8							
		9							
10									
5	138 (20.0 psi)	0	7.0	0.0	0.00	20.0	4.7		
		1	8.9	1.9	0.59				
		2	11.0	2.1	0.65				
		3	12.7	1.7	0.53				
		4	15.0	2.3	0.71				
		5	17.4	2.4	0.75				
		6	19.4	2.0	0.62				
		7	21.5	2.1	0.65				
		8	23.6	2.1	0.65				
		9	25.8	2.2	0.68				
10	27.9	2.1	0.65						
<b>Calculations</b>									
Maximum testing pressure: Pmax = 25H (kPa)				<b>Calculations</b> Maximum testing pressure: Pmax = 25H (kPa) kPa in psi, multiplied by 0.14 psi in kPa, multiplied by 6.9					
Q = del B / del t				Q = del B / del t A = Q / Zbottom - Ztop Lu = (avg. A x 1000) / P Lugeon Value used for calc Lu = 2.6 Corresponding pressure P (kPa) = 276					
Lu = (avg. A x 1000) / P				<b>Isotropic Hydraulic Conductivity:</b>  Equation (after Bliss and Ruston, 1984): $k = (Q / (2 \times \pi \times L \times h)) \times \ln (L / r)$  <b>k = 2.34E-05 cm/s</b>					
Lugeon Value used for calc Lu = 2.6				Interpreted Lugeon pattern (after Houlsby, 1976, and Quinozes, 2010) <b>TURBULENT</b>					
Corresponding pressure P (kPa) = 276				Notes:					
<b>Calculations by:</b> Amir Niazi				<b>Verified by:</b> Brad Trytten, P.Geo.					



**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 218.40 m Z bottom = 221.62 m		<b>Depth to rock =</b> 2.50 m		<b>Interval Number:</b> 4					
		<b>Water Level:</b> depth (hw) = 5.70 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> BR21-273					
				<b>Test Date/Time:</b> 6/24/21 2:11 PM					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 3.22 m									
Height of gauge above ground: 0.50 m									
Gravity head: H0 = h1 + hw = 6.20 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	138 (20.0 psi)	0	1.0			0.0	0.00	20.0	4.5
		1	3.0			2.0	0.62		
		2	4.9	1.9	0.59				
		3	6.8	1.9	0.59				
		4	8.7	1.9	0.59				
		5	10.8	2.1	0.65				
		6	12.7	1.9	0.59				
		7	14.8	2.1	0.65				
		8	16.8	2.0	0.62				
		9	18.9	2.1	0.65				
10	21.0	2.1	0.65						
2	207 (30.0 psi)	0	0.0	0.0	0.00	30.0	2.7		
		1	1.8	1.8	0.56				
		2	3.8	2.0	0.62				
		3	5.7	1.9	0.59				
		4	7.3	1.6	0.50				
		5	8.9	1.6	0.50				
		6	10.8	1.9	0.59				
		7	12.6	1.8	0.56				
		8	14.4	1.8	0.56				
		9	16.3	1.9	0.59				
10	18.1	1.8	0.56						
3	276 (40.0 psi)	0	8.0	0.0	0.00	40.0	2.8		
		1	10.4	2.4	0.75				
		2	12.9	2.5	0.78				
		3	15.3	2.4	0.75				
		4	17.8	2.5	0.78				
		5	20.4	2.6	0.81				
		6	22.9	2.5	0.78				
		7	25.5	2.6	0.81				
		8	27.8	2.3	0.71				
		9	30.4	2.6	0.81				
10	33.0	2.6	0.81						
4	207 (30.0 psi)	0	1.5	0.0	0.00	30.0	3.3		
		1	3.7	2.2	0.68				
		2	5.7	2.0	0.62				
		3	7.9	2.2	0.68				
		4	10.2	2.3	0.71				
		5	12.3	2.1	0.65				
		6	14.5	2.2	0.68				
		7	16.7	2.2	0.68				
		8	18.9	2.2	0.68				
		9							
10									
5	138 (20.0 psi)	0	7.0	0.0	0.00	20.0	4.3		
		1	8.6	1.6	0.50				
		2	10.3	1.7	0.53				
		3	12.3	2.0	0.62				
		4	14.0	1.7	0.53				
		5	16.0	2.0	0.62				
		6	17.9	1.9	0.59				
		7	19.8	1.9	0.59				
		8	21.7	1.9	0.59				

**Calculations**

Maximum testing pressure:  
Pmax = 25H (kPa)  
kPa in psi, multiplied by 0.14  
psi in kPa, multiplied by 6.9  
Q = del B / del t  
A = Q / Zbottom - Ztop  
Lu = (avg. A x 1000) / P  
Lugeon Value used for calc Lu = 2.7  
Corresponding pressure P (kPa) = 207

**Isotropic Hydraulic Conductivity:**

Equation (after Bliss and Ruston, 1984):  
k = (Q / (2 x pi x L x h)) x ln (L / r)

**k = 2.26E-05 cm/s**

Interpreted Lugeon pattern (after Houltsby, 1976, and Quinozes, 2010) **TURBULENT**

Notes:

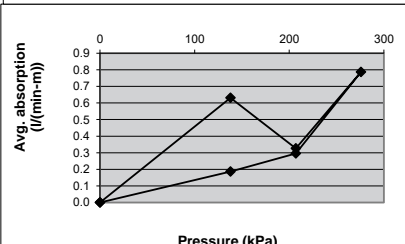
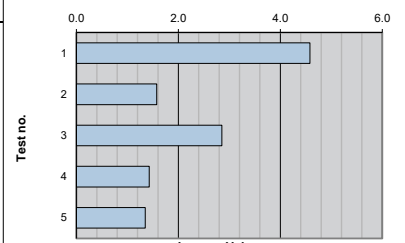
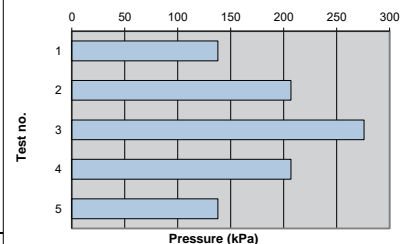


**Calculations by:** Amir Niazi **Verified by:** Brad Trytten, P.Geo.

**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 194.40 m Z bottom = 197.62 m		<b>Depth to rock</b> = 2.50 m		<b>Interval Number:</b> 3					
		<b>Water Level:</b> depth (hw) = 5.70 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> BR21-273					
				<b>Test Date/Time:</b> 6/25/21 12:40 AM					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 3.22 m									
Height of gauge above ground: 0.47 m									
Gravity head: H0 = h1 + hw = 6.17 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	138 (20.0 psi)	0 1 2 3 4 5 6 7 8 9 10	7.0 9.1 11.1 13.2 15.2 17.2 19.2 21.1 22.8 24.6 26.4			0.0 2.1 2.0 2.1 2.0 2.0 1.9 1.7 1.8 1.8	0.00 0.65 0.62 0.65 0.62 0.62 0.59 0.53 0.56 0.56	20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0	4.6
2	207 (30.0 psi)	0 1 2 3 4 5 6 7 8 9 10	3.0 4.1 5.4 6.4 7.4 8.5 9.6 10.6 11.7 12.8 13.9			0.0 1.1 1.3 1.0 1.0 1.1 1.0 1.1 1.1 1.1	0.00 0.34 0.40 0.31 0.31 0.34 0.34 0.31 0.34 0.34	30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0	1.6
3	276 (40.0 psi)	0 1 2 3 4 5 6 7 8 9 10	3.0 5.7 8.3 10.8 13.3 15.9 18.4 20.9 23.4 25.8 28.3	0.0 2.7 2.6 2.5 2.5 2.6 2.5 2.5 2.5 2.4 2.5	0.00 0.84 0.81 0.78 0.78 0.81 0.78 0.78 0.78 0.75 0.78	40.0 40.0 40.0 40.0 40.0 40.0 40.0 40.0 40.0 40.0	2.9		
4	207 (30.0 psi)	0 1 2 3 4 5 6 7 8 9 10	1.0 1.5 2.4 3.2 4.2 5.3 6.4 7.5 8.6 9.8 11.2	0.0 0.5 0.9 0.8 1.0 1.1 1.1 1.1 1.1 1.2 1.4	0.00 0.16 0.28 0.25 0.31 0.34 0.34 0.34 0.34 0.37 0.43	30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0	1.4		
5	138 (20.0 psi)	0 1 2 3 4 5 6 7 8 9 10 11	0.0 0.5 1.0 1.7 2.4 2.9 3.6 4.2 4.7 5.2 5.9 6.7	0.0 0.5 0.5 0.7 0.7 0.5 0.7 0.6 0.5 0.5 0.7 0.8	0.00 0.16 0.16 0.22 0.22 0.16 0.22 0.19 0.16 0.16 0.22 0.25	20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0	1.4		
<b>Calculations by:</b> Amir Niazi				<b>Verified by:</b> Brad Trytten, P.Geo.					

**Graphics**



**Calculations**

Maximum testing pressure:  
Pmax = 25H (kPa)  
kPa in psi, multiplied by 0.14  
psi in kPa, multiplied by 6.9  
Q = del B / del t  
A = Q / Zbottom - Ztop  
Lu = (avg. A x 1000) / P  
Lugeon Value used for calc Lu = 1.4  
Corresponding pressure P (kPa) = 138

**Isotropic Hydraulic Conductivity:**

Equation (after Bliss and Ruston, 1984):  
k = (Q / (2 x pi x L x h)) x ln (L / r)  
  
**k = 1.02E-05 cm/s**

Interpreted Lugeon pattern  
(after Houlsby, 1976, and Quinozes, 2010) **VOID FILLING**

Notes:



**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 101.30 m Z bottom = 104.52 m		<b>Depth to rock =</b> 2.40 m		<b>Interval Number:</b> 1				
		<b>Water Level:</b> depth (hw) = 11.90 m		<b>Project Number:</b> 11222385				
				<b>Test Hole:</b> BR21-272				
				<b>Test Date/Time:</b> 6/19/21 3:02 AM				
<b>Water Pressure Test</b>				<b>Graphics</b>				
Drill hole size: HQ3		Borehole diameter: D= 9.60 cm						
Packer type: SINGLE		Drill rod diameter: d= - cm						
Test length: L= 3.22 m		Height of gauge above ground: 0.40 m						
Gravity head: H0 = h1 + hw = 12.30 m								
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>	<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>	
1	138 (20.0 psi)	0	7.0	0.0	0.00		4.8	
		1	8.9	1.9	0.59	20.0		
		2	11.0	2.1	0.65	20.0		
		3	13.1	2.1	0.65	20.0		
		4	15.3	2.2	0.68	20.0		
		5	17.4	2.1	0.65	20.0		
		6	19.5	2.1	0.65	20.0		
		7	21.5	2.0	0.62	20.0		
		8	23.7	2.2	0.68	20.0		
		9	25.9	2.2	0.68	20.0		
		10	28.2	2.3	0.71	20.0		
2	207 (30.0 psi)	0	5.0	0.0	0.00		2.8	
		1	6.8	1.8	0.56	30.0		
		2	8.7	1.9	0.59	30.0		
		3	10.5	1.8	0.56	30.0		
		4	12.3	1.8	0.56	30.0		
		5	14.2	1.9	0.59	30.0		
		6	16.1	1.9	0.59	30.0		
		7	18.0	1.9	0.59	30.0		
		8	19.9	1.9	0.59	30.0		
		9						
		10						
3	276 (40.0 psi)	0	8.0	0.0	0.00		2.4	<b>Calculations</b> Maximum testing pressure: Pmax = 25H (kPa) kPa in psi, multiplied by 0.14 psi in kPa, multiplied by 6.9 Q = del B / del t A = Q / Zbottom - Ztop Lu = (avg. A x 1000) / P Lugeon Value used for calc Lu = 2.8 Corresponding pressure P (kPa) = 193
		1	10.1	2.1	0.65	40.0		
		2	12.5	2.4	0.75	40.0		
		3	14.6	2.1	0.65	40.0		
		4	16.5	1.9	0.59	40.0		
		5	18.6	2.1	0.65	40.0		
		6	20.8	2.2	0.68	40.0		
		7	23.0	2.2	0.68	40.0		
		8	25.2	2.2	0.68	40.0		
		9	27.2	2.0	0.62	40.0		
		10	29.4	2.2	0.68	40.0		
4	207 (30.0 psi)	0	0.0	0.0	0.00		3.7	<b>Isotropic Hydraulic Conductivity:</b>  Equation (after Bliss and Ruston, 1984): $k = (Q / (2 \times \pi \times L \times h)) \times \ln (L / r)$  <b>k = 1.88E-05 cm/s</b>  Interpreted Lugeon pattern (after Houltsby, 1976, and Quinozes, 2010) <b>LAMINAR</b>
		1	2.7	2.7	0.84	30.0		
		2	5.3	2.6	0.81	30.0		
		3	8.0	2.7	0.84	30.0		
		4	10.6	2.6	0.81	30.0		
		5	13.0	2.4	0.75	30.0		
		6	15.4	2.4	0.75	30.0		
		7	17.3	1.9	0.59	30.0		
		8	19.0	1.7	0.53	30.0		
		9	21.3	2.3	0.71	30.0		
		10	23.4	2.1	0.65	30.0		
		11	25.4	2.0	0.62	30.0		
		12	27.4	2.0	0.62	30.0		
5	138 (20.0 psi)	0	0.0	0.0	0.00		3.2	Notes:          
		1	1.5	1.5	0.47	20.0		
		2	3.0	1.5	0.47	20.0		
		3	4.3	1.3	0.40	20.0		
		4	5.6	1.3	0.40	20.0		
		5	7.0	1.4	0.43	20.0		
		6	8.4	1.4	0.43	20.0		
		7	9.8	1.4	0.43	20.0		
		8	11.2	1.4	0.43	20.0		
		9	12.5	1.3	0.40	20.0		
		10	13.8	1.3	0.40	20.0		
<b>Calculations by:</b> Amir Niazi							<b>Verified by:</b> Brad Trytten, P.Geo.	

**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 116.30 m Z bottom = 119.52 m		<b>Depth to rock =</b> 2.40 m		<b>Interval Number:</b> 2					
		<b>Water Level:</b> depth (hw) = 11.90 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> BR21-272					
				<b>Test Date/Time:</b> 6/19/21 3:44 PM					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 3.22 m									
Height of gauge above ground: 0.40 m									
Gravity head: H0 = h1 + hw = 12.30 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	138 (20.0 psi)	0	5.5			0.0	0.00		6.4
		1	8.4			2.9	0.90		
		2	11.1	2.7	0.84	20.0			
		3	13.8	2.7	0.84	20.0			
		4	16.7	2.9	0.90	20.0			
		5	19.5	2.8	0.87	20.0			
		6	22.4	2.9	0.90	20.0			
		7	25.4	3.0	0.93	20.0			
		8	28.4	3.0	0.93	20.0			
		9	31.4	3.0	0.93	20.0			
2	207 (30.0 psi)	0	6.0	0.0	0.00		4.6		
		1	9.2	3.2	0.99	30.0			
		2	12.3	3.1	0.96	30.0			
		3	15.3	3.0	0.93	30.0			
		4	18.4	3.1	0.96	30.0			
		5	21.5	3.1	0.96	30.0			
		6	24.6	3.1	0.96	30.0			
		7							
		8							
		9							
3	276 (40.0 psi)	0	8.5	0.0	0.00		3.2		
		1	11.3	2.8	0.87	40.0			
		2	14.2	2.9	0.90	40.0			
		3	17.1	2.9	0.90	40.0			
		4	19.8	2.7	0.84	40.0			
		5	22.6	2.8	0.87	40.0			
		6	25.4	2.8	0.87	40.0			
		7	28.2	2.8	0.87	40.0			
		8							
		9							
4	207 (30.0 psi)	0	3.0	0.0	0.00		4.8		
		1	6.0	3.0	0.93	30.0			
		2	9.2	3.2	0.99	30.0			
		3	12.4	3.2	0.99	30.0			
		4	15.7	3.3	1.02	30.0			
		5	19.0	3.3	1.02	30.0			
		6	22.1	3.1	0.96	30.0			
		7	25.2	3.1	0.96	30.0			
		8	28.5	3.3	1.02	30.0			
		9	31.7	3.2	0.99	30.0			
10	34.9	3.2	0.99	30.0					
5	138 (20.0 psi)	0	7.1	0.0	0.00		7.2		
		1	10.3	3.2	0.99	20.0			
		2	13.5	3.2	0.99	20.0			
		3	16.7	3.2	0.99	20.0			
		4	19.9	3.2	0.99	20.0			
		5							
		6							
		7							
		8							
		9							
10									
				<b>Calculations</b>					
				Maximum testing pressure: Pmax = 25H (kPa)					
				kPa in psi, multiplied by 0.14					
				psi in kPa, multiplied by 6.9					
				Q = del B / del t					
				A = Q / Zbottom - Ztop					
				Lu = (avg. A x 1000) / P					
				Lugeon Value used for calc Lu = 3.2					
				Corresponding pressure P (kPa) = 276					
				<b>Isotropic Hydraulic Conductivity:</b>					
				Equation (after Bliss and Ruston, 1984): k = (Q / (2 x pi x L x h)) x ln (L / r)					
				<b>k = 2.39E-05 cm/s</b>					
				Interpreted Lugeon pattern (after Houlby, 1976, and Quinozes, 2010) <b>TURBULENT</b>					
<b>Calculations by:</b> Amir Niazi				<b>Notes:</b>					
						<b>Verified by:</b> Brad Trytten, P.Geo.			

**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 167.30 m Z bottom = 170.52 m		<b>Depth to rock =</b> 2.40 m		<b>Interval Number:</b> 3					
		<b>Water Level:</b> depth (hw) = 11.90 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> BR21-272					
				<b>Test Date/Time:</b> 6/19/21 12:41 PM					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 3.22 m									
Height of gauge above ground: 0.40 m									
Gravity head: H0 = h1 + hw = 12.30 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	138 (20.0 psi)	0	5.0			0.0	0.00	20.0	12.4
		1	10.7			5.7	1.77		
		2	16.3	5.6	1.74				
		3	21.9	5.6	1.74				
		4	27.4	5.5	1.71				
		5	32.8	5.4	1.68				
		6	38.0	5.2	1.61				
		7	43.2	5.2	1.61				
		8	48.3	5.1	1.58				
		9	53.4	5.1	1.58				
10	58.5	5.1	1.58						
2	207 (30.0 psi)	0	6.0	0.0	0.00	30.0	3.9		
		1	8.9	2.9	0.90				
		2	11.6	2.7	0.84				
		3	14.2	2.6	0.81				
		4	17.0	2.8	0.87				
		5	19.6	2.6	0.81				
		6	22.1	2.5	0.78				
		7	24.6	2.5	0.78				
		8	27.1	2.5	0.78				
		9							
10									
3	276 (40.0 psi)	0	4.0	0.0	0.00	40.0	2.6		
		1	6.5	2.5	0.78				
		2	8.9	2.4	0.75				
		3	11.2	2.3	0.71				
		4	13.4	2.2	0.68				
		5	15.6	2.2	0.68				
		6	18.2	2.6	0.81				
		7	20.6	2.4	0.75				
		8	22.9	2.3	0.71				
		9	25.2	2.3	0.71				
10	27.6	2.4	0.75						
4	207 (30.0 psi)	0	5.0	0.0	0.00	30.0	3.9		
		1	7.7	2.7	0.84				
		2	10.3	2.6	0.81				
		3	12.8	2.5	0.78				
		4	15.3	2.5	0.78				
		5	17.2	1.9	0.59				
		6	20.9	3.7	1.15				
		7	23.5	2.6	0.81				
		8	26.3	2.8	0.87				
		9	29.0	2.7	0.84				
10	31.8	2.8	0.87						
5	138 (20.0 psi)	0	3.5	0.0	0.00	20.0	5.8		
		1	6.1	2.6	0.81				
		2	8.8	2.7	0.84				
		3	11.4	2.6	0.81				
		4	13.9	2.5	0.78				
		5	16.5	2.6	0.81				
		6	19.2	2.7	0.84				
		7	22.0	2.8	0.87				
		8	24.4	2.4	0.75				
		9	27.1	2.7	0.84				
10	29.8	2.7	0.84						

**Calculations**

Maximum testing pressure:  
 $P_{max} = 25H$  (kPa)  
 kPa in psi, multiplied by 0.14  
 psi in kPa, multiplied by 6.9  
 $Q = \Delta B / \Delta t$   
 $A = Q / Z_{bottom} - Z_{top}$   
 $Lu = (avg. A \times 1000) / P$   
 Lugeon Value used for calc Lu = 2.6  
 Corresponding pressure P (kPa) = 276

**Isotropic Hydraulic Conductivity:**

Equation (after Bliss and Ruston, 1984):  
 $k = (Q / (2 \times \pi \times L \times h)) \times \ln(L / r)$   
**k = 1.99E-05 cm/s**

Interpreted Lugeon pattern  
 (after Houltsby, 1976, and Quinozes, 2010) **TURBULENT**

Notes:

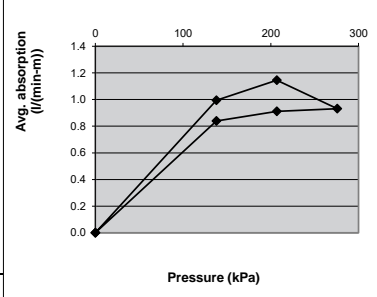
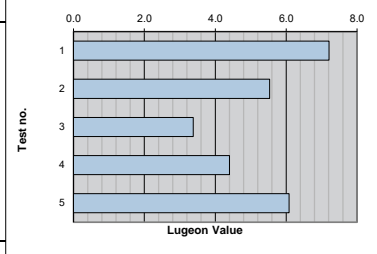
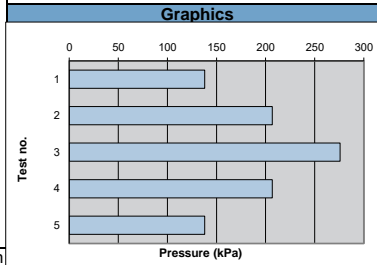


**Calculations by:** Amir Niazi **Verified by:** Brad Trytten, P. Geo.



**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 194.30 m Z bottom = 197.52 m		<b>Depth to rock =</b> 2.40 m		<b>Interval Number:</b> 4					
		<b>Water Level:</b> depth (hw) = 11.90 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> BR21-272					
				<b>Test Date/Time:</b> 6/19/21 9:06 AM					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 3.22 m									
Height of gauge above ground: 0.40 m									
Gravity head: H0 = h1 + hw = 12.30 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	138 (20.0 psi)	0 1 2 3 4 5 6 7 8 9 10	1.0 4.2 7.4 10.6 13.8			0.0 3.2 3.2 3.2 3.2	0.00 0.99 0.99 0.99 0.99	20.0 20.0 20.0 20.0	7.2
2	207 (30.0 psi)	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14	9.0 13.3 17.3 21.0 24.8 28.8 32.5 36.3 39.7 43.3 46.8 50.4 53.8 57.3 60.6			0.0 4.3 4.0 3.7 3.8 4.0 3.7 3.8 3.4 3.6 3.5 3.6 3.4 3.5 3.3	0.00 1.34 1.24 1.15 1.18 1.24 1.15 1.18 1.06 1.12 1.09 1.12 1.06 1.09 1.02	30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0	5.5
3	276 (40.0 psi)	0 1 2 3 4 5 6 7 8 9 10	3.0 6.1 9.2 12.1 15.1 18.3 21.2 24.1 27.2 30.3 33.1	0.0 3.1 3.1 2.9 3.0 3.2 2.9 2.9 3.1 3.1 2.8	0.00 0.96 0.96 0.90 0.93 0.99 0.90 0.90 0.96 0.96 0.87	40.0 40.0 40.0 40.0 40.0 40.0 40.0 40.0 40.0 40.0 40.0	3.4		
4	207 (30.0 psi)	0 1 2 3 4 5 6 7 8 9 10	4.0 6.5 9.3 12.2 15.1 18.1 21.0 24.0 26.9 29.8	0.0 2.5 2.8 2.9 2.9 3.0 2.9 3.0 2.9 2.9	0.00 0.78 0.87 0.90 0.90 0.93 0.90 0.90 0.90 0.90	30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0	4.4		
5	138 (20.0 psi)	0 1 2 3 4 5 6 7 8 9 10 11 12 13	0.0 2.2 4.5 7.3 10.1 12.8 15.4 18.2 20.7 23.3 26.3 29.0 31.8 34.6	0.0 2.2 2.3 2.8 2.8 2.7 2.6 2.8 2.5 2.6 3.0 2.7 2.8 2.8	0.00 0.68 0.71 0.87 0.87 0.84 0.81 0.87 0.78 0.81 0.93 0.84 0.87 0.87	20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0	6.1		
<b>Calculations by:</b> Amir Niazi				<b>Verified by :</b> Brad Trytten, P.Geo.					



**Calculations**

Maximum testing pressure:  
Pmax = 25H (kPa)

kPa in psi, multiplied by 0.14  
psi in kPa, multiplied by 6.9

Q =  $\Delta B / \Delta t$

A = Q / Zbottom - Ztop

Lu = (avg. A x 1000) / P

Lugeon Value used for calc Lu = 3.4

Corresponding pressure P (kPa) = 276

**Isotropic Hydraulic Conductivity:**

Equation (after Bliss and Ruston, 1984):  
 $k = (Q / (2 \times \pi \times L \times h)) \times \ln(L / r)$

**k = 2.56E-05 cm/s**

Interpreted Lugeon pattern (after Houlby, 1976, and Quinozes, 2010) **TURBULENT**

Notes:




**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 224.30 m Z bottom = 227.52 m		<b>Depth to rock =</b> 2.40 m		<b>Interval Number:</b> 4					
		<b>Water Level:</b> depth (hw) = 11.90 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> BR21-272					
				<b>Test Date/Time:</b> 6/18/21 3:20 AM					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 3.22 m									
Height of gauge above ground: 2.81 m									
Gravity head: H0 = h1 + hw = 14.71 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	138 (20.0 psi)	0	3.0			0.0	0.00	20.0	2.7
		1	4.8			1.8	0.56	20.0	
		2	6.5	1.7	0.53	20.0			
		3	7.8	1.3	0.40	20.0			
		4	9.2	1.4	0.43	20.0			
		5	10.4	1.2	0.37	20.0			
		6	11.5	1.1	0.34	20.0			
		7	12.6	1.1	0.34	20.0			
		8	13.8	1.2	0.37	20.0			
		9	15.0	1.2	0.37	20.0			
		10	16.4	1.4	0.43	20.0			
		11	17.3	0.9	0.28	20.0			
2	207 (30.0 psi)	0	4.0	0.0	0.00	30.0	1.1		
		1	4.8	0.8	0.25	30.0			
		2	5.6	0.8	0.25	30.0			
		3	6.1	0.5	0.16	30.0			
		4	7.0	0.9	0.28	30.0			
		5	7.7	0.7	0.22	30.0			
		6	8.4	0.7	0.22	30.0			
		7	8.8	0.4	0.12	30.0			
		8	9.6	0.8	0.25	30.0			
		9	10.3	0.7	0.22	30.0			
		10	10.8	0.5	0.16	30.0			
		11	11.2	0.4	0.12	30.0			
3	276 (40.0 psi)	0	4.0	0.0	0.00	40.0	1.0		
		1	4.5	0.5	0.16	40.0			
		2	5.4	0.9	0.28	40.0			
		3	6.3	0.9	0.28	40.0			
		4	7.0	0.7	0.22	40.0			
		5	7.7	0.7	0.22	40.0			
		6	8.7	1.0	0.31	40.0			
		7	9.4	0.7	0.22	40.0			
		8	10.5	1.1	0.34	40.0			
		9	11.5	1.0	0.31	40.0			
		10	12.3	0.8	0.25	40.0			
		11	13.2	0.9	0.28	40.0			
		12	14.1	0.9	0.28	40.0			
4	207 (30.0 psi)	0	7.0	0.0	0.00	30.0	1.0		
		1	7.8	0.8	0.25	30.0			
		2	8.5	0.7	0.22	30.0			
		3	9.2	0.7	0.22	30.0			
		4	9.7	0.5	0.16	30.0			
		5	10.2	0.5	0.16	30.0			
		6	10.9	0.7	0.22	30.0			
		7	11.6	0.7	0.22	30.0			
		8	12.5	0.9	0.28	30.0			
		9	13.1	0.6	0.19	30.0			
		10	14.0	0.9	0.28	30.0			
5	138 (20.0 psi)	0	5.0	0.0	0.00	20.0	2.9		
		1	6.3	1.3	0.40	20.0			
		2	7.5	1.2	0.37	20.0			
		3	8.8	1.3	0.40	20.0			
		4	10.1	1.3	0.40	20.0			
		5	11.4	1.3	0.40	20.0			
		6	12.7	1.3	0.40	20.0			
		7	13.7	1.0	0.78	20.0			
		8	15.1	1.4	0.78	20.0			
		9	16.3	1.2	0.78	20.0			
		10	17.5	1.2	0.78	20.0			
<b>Calculations</b>				<b>Calculations</b>					
Maximum testing pressure: Pmax = 25H (kPa) kPa in psi, multiplied by 0.14				psi in kPa, multiplied by 6.9					
Q = del B / del t				Lu = (avg. A x 1000) / P					
A = Q / Zbottom - Ztop				Lugeon Value used for calc Lu = 1.7					
Lu = (avg. A x 1000) / P				Corresponding pressure P (kPa) = 193					
<b>Isotropic Hydraulic Conductivity:</b>				<b>Isotropic Hydraulic Conductivity:</b>					
Equation (after Bliss and Ruston, 1984): k = (Q / (2 x pi x L x h)) x ln (L / r)				k = 1.09E-05 cm/s					
Interpreted Lugeon pattern (after Housby, 1976, and Quinozes, 2010)				LAMINAR					
Notes:				Notes:					
<b>Calculations by:</b> Amir Niazi				<b>Verified by:</b> Brad Trytten, P.Geo.					




**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 21.11 m Z bottom = 23.39 m		<b>Depth to rock =</b> 4.98 m		<b>Interval Number:</b> 1					
		<b>Water Level:</b> depth (hw) = 5.46 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> MW42B					
				<b>Test Date/Time:</b> 10/07/21					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 2.28 m									
Height of gauge above ground: 2.75									
Gravity head: H0 = h1 + hw = 8.21 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	172 (25.0 psi)	0	26.9			0.0	0.00	25.0	0.8
		1	28.2			1.3	0.58	25.0	
		2	28.7	0.5	0.22	25.0			
		3	29.1	0.4	0.17	25.0			
		4	29.5	0.4	0.17	25.0			
		5	29.7	0.3	0.12	25.0			
		6	30.0	0.3	0.12	25.0			
		7	30.3	0.3	0.13	25.0			
		8	30.5	0.3	0.12	25.0			
		9	30.8	0.2	0.10	25.0			
		10	31.0	0.3	0.12	25.0			
2	276 (40.0 psi)	0	32.9	0.0	0.00	40.0	1.0		
		1	33.5	0.6	0.25	40.0			
		2	34.4	0.9	0.38	40.0			
		3	35.0	0.6	0.28	40.0			
		4	35.6	0.6	0.25	40.0			
		5	36.3	0.7	0.30	40.0			
		6	36.7	0.5	0.20	40.0			
		7	37.5	0.8	0.33	40.0			
		8	38.0	0.6	0.25	40.0			
		9	38.6	0.6	0.27	40.0			
		10	39.3	0.6	0.28	40.0			
3	345 (50.0 psi)	0	50.5	0.0	0.00	50.0	1.1		
		1	51.5	0.9	0.42	50.0			
		2	52.5	1.1	0.46	50.0			
		3	53.6	1.0	0.45	50.0			
		4	54.2	0.6	0.28	50.0			
		5	55.1	0.9	0.38	50.0			
		6	55.9	0.9	0.38	50.0			
		7	56.7	0.8	0.35	50.0			
		8	57.3	0.6	0.27	50.0			
		9	58.0	0.6	0.27	50.0			
		10	58.7	0.8	0.33	50.0			
4	276 (40.0 psi)	0	59.1	0.0	0.00	40.0	0.9		
		1	59.7	0.7	0.30	40.0			
		2	60.3	0.5	0.23	40.0			
		3	60.9	0.6	0.27	40.0			
		4	61.3	0.5	0.20	40.0			
		5	61.9	0.6	0.25	40.0			
		6	62.5	0.6	0.25	40.0			
		7	63.0	0.6	0.25	40.0			
		8	63.6	0.6	0.25	40.0			
		9							
		10							
5	172 (25.0 psi)	0	63.6	0.0	0.00	25.0	0.6		
		1	63.6	0.0	0.02	25.0			
		2	63.7	0.1	0.05	25.0			
		3	64.0	0.2	0.10	25.0			
		4	64.2	0.3	0.12	25.0			
		5	64.5	0.2	0.10	25.0			
		6	64.7	0.2	0.10	25.0			
		7	64.9	0.2	0.10	25.0			
		8	65.1	0.2	0.10	25.0			
		9							
		10							
<b>Calculations by:</b> Amir Niazi				<b>Verified by:</b> Brad Trytten, P.Geo.					
				<b>Calculations</b> Maximum testing pressure: Pmax = 25H (kPa) kPa in psi, multiplied by 0.14 psi in kPa, multiplied by 6.9 $Q = \Delta B / \Delta t$ $A = Q / (Z_{bottom} - Z_{top})$ $Lu = (avg. A \times 1000) / P$ Lugeon Value used for calc Lu = 1 Corresponding pressure P (kPa) = 248					
				<b>Isotropic Hydraulic Conductivity:</b>  Equation (after Bliss and Ruston, 1984): $k = (Q / (2 \times \pi \times L \times h)) \times \ln(L / r)$  $k = 6.66E-06 \text{ cm/s}$  Interpreted Lugeon pattern (after Hously, 1976, and Quinozes, 2010) <b>LAMINAR</b>					
				Notes:  					



**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 19.50 m Z bottom = 22.30 m		<b>Depth to rock =</b> 1.78 m		<b>Interval Number:</b> 1					
		<b>Water Level:</b> depth (hw) = 0.43 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> MW46B					
				<b>Test Date/Time:</b> 10/04/21					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 2.80 m									
Height of gauge above ground: 0.78									
Gravity head: H0 = h1 + hw = 1.21 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	138 (20.0 psi)	0	20.1			0.0	0.00	20.0	0.9
		1	20.4			0.4	0.14	20.0	
		2	20.7	0.3	0.11	20.0			
		3	21.2	0.5	0.16	20.0			
		4	21.4	0.2	0.07	20.0			
		5	21.7	0.3	0.09	20.0			
		6	22.0	0.4	0.14	20.0			
		7	22.4	0.4	0.14	20.0			
		8	22.8	0.4	0.14	20.0			
		9	23.2	0.4	0.14	20.0			
		10	23.5	0.4	0.14	20.0			
2	159 (23.0 psi)	0	24.6	0.0	0.00	23.0	0.7		
		1	25.0	0.4	0.14	23.0			
		2	25.4	0.4	0.14	23.0			
		3	25.7	0.4	0.14	23.0			
		4	25.9	0.2	0.07	23.0			
		5	26.2	0.3	0.09	23.0			
		6	26.5	0.3	0.11	23.0			
		7	26.9	0.4	0.14	23.0			
		8	27.1	0.2	0.07	23.0			
		9	27.4	0.4	0.14	23.0			
		10	27.8	0.4	0.14	23.0			
3	179 (26.0 psi)	0	28.4	0.0	0.00	26.0	0.6		
		1	28.8	0.5	0.16	26.0			
		2	29.2	0.4	0.14	26.0			
		3	29.6	0.4	0.14	26.0			
		4	30.0	0.4	0.14	26.0			
		5	30.3	0.3	0.11	26.0			
		6	30.6	0.3	0.11	26.0			
		7	30.9	0.3	0.09	26.0			
		8	31.1	0.3	0.09	26.0			
		9	31.4	0.3	0.11	26.0			
		10	31.7	0.3	0.11	26.0			
4	159 (23.0 psi)	0	31.9	0.0	0.00	23.0	0.4		
		1	32.0	0.1	0.04	23.0			
		2	32.2	0.2	0.07	23.0			
		3	32.4	0.2	0.07	23.0			
		4	32.6	0.2	0.07	23.0			
		5	32.7	0.2	0.07	23.0			
		6	32.9	0.2	0.07	23.0			
		7	33.1	0.2	0.07	23.0			
		8							
		9							
		10							
5	138 (20.0 psi)	0	33.1	0.0	0.00	20.0	0.1		
		1	33.2	0.0	0.01	20.0			
		2	33.2	0.0	0.01	20.0			
		3	33.2	0.0	0.00	20.0			
		4	33.2	0.0	0.00	20.0			
		5	33.2	0.0	0.00	20.0			
		6	33.2	0.0	0.01	20.0			
		7	33.3	0.1	0.03	20.0			
		8	33.5	0.2	0.07	20.0			
		9	33.7			20.0			
		10	33.9			20.0			
<b>Calculations by:</b> Amir Niazi				<b>Verified by:</b> Brad Trytten, P.Geo.					
				<b>Calculations</b> Maximum testing pressure: Pmax = 25H (kPa) kPa in psi, multiplied by 0.14 psi in kPa, multiplied by 6.9 Q = del B / del t A = Q / Zbottom - Ztop Lu = (avg. A x 1000) / P Lugeon Value used for calc Lu = 0.1 Corresponding pressure P (kPa) = 138 <b>Isotropic Hydraulic Conductivity:</b> Equation (after Bliss and Ruston, 1984): $k = (Q / (2 \times \pi \times L \times h)) \times \ln (L / r)$ <b>k = 5.70E-07 cm/s</b> Interpreted Lugeon pattern (after Housby, 1976, and Quinozes, 2010) <b>VOID FILLING</b> Notes: 					

**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 29.60 m Z bottom = 32.82 m		<b>Depth to rock =</b> 2.60 m		<b>Interval Number:</b> 1					
		<b>Water Level:</b> depth (hw) = 2.90 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> BR21-274 MW46C					
				<b>Test Date/Time:</b> 6/29/21 5:33 PM					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3		Borehole diameter: D= 9.60 cm							
Packer type: SINGLE		Drill rod diameter: d= - cm							
Test length: L= 3.22 m		Height of gauge above ground: 0.40 m							
Gravity head: H0 = h1 + hw = 3.30 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>	<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>		
1	110 (16.0 psi)	0	1.0	0.0	0.00		6.1		
		1	3.3	2.3	0.71	16.0			
		2	5.8	2.5	0.78	16.0			
		3	8.2	2.4	0.75	16.0			
		4	10.3	2.1	0.65	16.0			
		5	12.7	2.4	0.75	16.0			
		6	14.7	2.0	0.62	16.0			
		7	16.9	2.2	0.68	16.0			
		8	19.2	2.3	0.71	16.0			
		9	21.3	2.1	0.65	16.0			
2	165 (24.0 psi)	0	8.5	0.0	0.00		5.3		
		1	10.8	2.3	0.71	24.0			
		2	13.4	2.6	0.81	24.0			
		3	16.3	2.9	0.90	24.0			
		4	19.1	2.8	0.87	24.0			
		5	21.8	2.7	0.84	24.0			
		6	24.7	2.9	0.90	24.0			
		7	27.5	2.8	0.87	24.0			
		8	30.3	2.8	0.87	24.0			
		9	33.1	2.8	0.87	24.0			
3	221 (32.0 psi)	0	1.5	0.0	0.00		4.4		
		1	4.7	3.2	0.99	32.0			
		2	8.0	3.3	1.02	32.0			
		3	11.0	3.0	0.93	32.0			
		4	14.1	3.1	0.96	32.0			
		5	17.3	3.2	0.99	32.0			
		6	20.4	3.1	0.96	32.0			
		7	23.6	3.2	0.99	32.0			
		8	26.7	3.1	0.96	32.0			
		9	29.9	3.2	0.99	32.0			
4	165 (24.0 psi)	0	3.5	0.0	0.00		5.6		
		1	6.4	2.9	0.90	24.0			
		2	9.6	3.2	0.99	24.0			
		3	12.6	3.0	0.93	24.0			
		4	15.4	2.8	0.87	24.0			
		5	18.2	2.8	0.87	24.0			
		6	21.3	3.1	0.96	24.0			
		7	24.4	3.1	0.96	24.0			
		8	27.5	3.1	0.96	24.0			
		9							
		10							
		11							
12									
5	110 (16.0 psi)	0	7.7	0.0	0.00		7.6		
		1	9.9	2.2	0.68	16.0			
		2	12.5	2.6	0.81	16.0			
		3	15.4	2.9	0.90	16.0			
		4	18.2	2.8	0.87	16.0			
		5	21.0	2.8	0.87	16.0			
		6	23.8	2.8	0.87	16.0			
		7							
		8							
		9							
10									
<b>Calculations</b>									
Maximum testing pressure: Pmax = 25H (kPa)									
kPa in psi, multiplied by 0.14									
psi in kPa, multiplied by 6.9									
Q = del B / del t									
A = Q / Zbottom - Ztop									
Lu = (avg. A x 1000) / P									
Lugeon Value used for calc Lu = 4.4									
Corresponding pressure P (kPa) = 221									
<b>Isotropic Hydraulic Conductivity:</b>									
Equation (after Bliss and Ruston, 1984): k = (Q / (2 x pi x L x h)) x ln (L / r)									
<b>k = 4.21E-05 cm/s</b>									
Interpreted Lugeon pattern (after Houlsby, 1976, and Quinozes, 2010) <b>TURBULENT</b>									
Notes:									
<b>Calculations by:</b> Amir Niazi							<b>Verified by:</b> Brad Trytten, P.Geo.		



**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 86.60 m Z bottom = 89.82 m		<b>Depth to rock =</b> 2.60 m		<b>Interval Number:</b> 2					
		<b>Water Level:</b> depth (hw) = 2.90 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> BR21-274 MW46C					
				<b>Test Date/Time:</b> 6/29/21 2:57 PM					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 3.22 m									
Height of gauge above ground: 0.40 m									
Gravity head: H0 = h1 + hw = 3.30 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	138 (20.0 psi)	0	0.5			0.0	0.00	20.0	6.0
		1	3.0			2.5	0.78		
		2	5.7	2.7	0.84				
		3	8.3	2.6	0.81				
		4	11.0	2.7	0.84				
		5	13.7	2.7	0.84				
		6	16.6	2.9	0.90				
		7	19.2	2.6	0.81				
		8	21.7	2.5	0.78				
		9	24.4	2.7	0.84				
10	27.1	2.7	0.84						
2	207 (30.0 psi)	0	8.0	0.0	0.00	30.0	3.7		
		1	10.2	2.2	0.68				
		2	12.7	2.5	0.78				
		3	15.1	2.4	0.75				
		4	17.6	2.5	0.78				
		5	20.0	2.4	0.75				
		6	22.3	2.3	0.71				
		7	24.7	2.4	0.75				
		8	27.2	2.5	0.78				
		9	29.7	2.5	0.78				
10	32.0	2.3	0.71						
3	276 (40.0 psi)	0	3.0	0.0	0.00	40.0	2.8		
		1	5.5	2.5	0.78				
		2	8.2	2.7	0.84				
		3	10.6	2.4	0.75				
		4	13.0	2.4	0.75				
		5	15.4	2.4	0.75				
		6							
		7							
		8							
		9							
		10							
11									
4	207 (30.0 psi)	0	1.5	0.0	0.00	30.0	4.0		
		1	3.9	2.4	0.75				
		2	6.6	2.7	0.84				
		3	9.2	2.6	0.81				
		4	11.7	2.5	0.78				
		5	14.3	2.6	0.81				
		6	17.0	2.7	0.84				
		7	19.7	2.7	0.84				
		8	22.4	2.7	0.84				
		9							
10									
5	138 (20.0 psi)	0	7.0	0.0	0.00	20.0	5.7		
		1	10.0	3.0	0.93				
		2	12.5	2.5	0.78				
		3	15.1	2.6	0.81				
		4	17.7	2.6	0.81				
		5	20.1	2.4	0.75				
		6	22.7	2.6	0.81				
		7	25.3	2.6	0.81				
		8							
		9							
10									
<b>Calculations</b>				Maximum testing pressure: $P_{max} = 25H$ (kPa) kPa in psi, multiplied by 0.14 psi in kPa, multiplied by 6.9  $Q = \Delta B / \Delta t$ $A = Q / (Z_{bottom} - Z_{top})$ $Lu = (avg. A \times 1000) / P$ Lugeon Value used for calc Lu = 2.8 Corresponding pressure P (kPa) = 276					
<b>Isotropic Hydraulic Conductivity:</b>				Equation (after Bliss and Ruston, 1984): $k = (Q / (2 \times \pi \times L \times h)) \times \ln(L / r)$  $k = 2.72E-05$ cm/s					
<i>Interpreted Lugeon pattern (after Houlsby, 1976, and Quinozes, 2010)</i>				<b>TURBULENT</b>					
Notes:									
<b>Calculations by:</b> Amir Niazi									
<b>Verified by:</b> Brad Trytten, P.Geo.									

**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

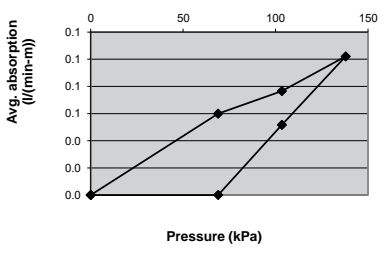
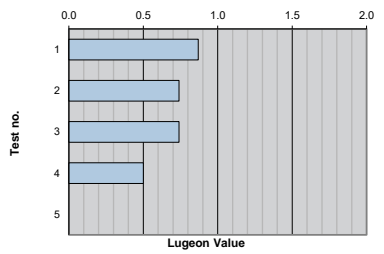
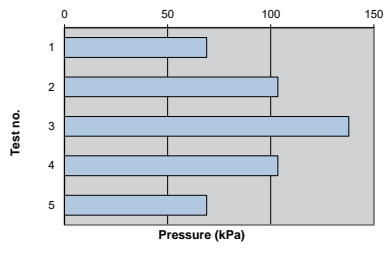
<b>Testing depth</b> Z top (H) = 110.60 m Z bottom = 113.82 m		<b>Depth to rock =</b> 2.60 m		<b>Interval Number:</b> 3					
		<b>Water Level:</b> depth (hw) = 2.90 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> BR21-274 MW46C					
				<b>Test Date/Time:</b> 6/29/21 11:41 AM					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 3.22 m									
Height of gauge above ground: 0.40 m									
Gravity head: H0 = h1 + hw = 3.30 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	138 (20.0 psi)	0	0.0			0.0	0.00	20.0	6.7
		1	2.9			2.9	0.90	20.0	
		2	5.7	2.8	0.87	20.0			
		3	8.6	2.9	0.90	20.0			
		4	11.7	3.1	0.96	20.0			
		5	14.6	2.9	0.90	20.0			
		6	17.6	3.0	0.93	20.0			
		7	20.4	2.8	0.87	20.0			
		8	23.2	2.8	0.87	20.0			
		9	25.9	2.7	0.84	20.0			
		10	28.8	2.9	0.90	20.0			
2	207 (30.0 psi)	0	2.0	0.0	0.00	30.0	5.4		
		1	5.6	3.6	1.12	30.0			
		2	9.2	3.6	1.12	30.0			
		3	12.8	3.6	1.12	30.0			
		4	16.4	3.6	1.12	30.0			
		5							
		6							
		7							
		8							
		9							
		10							
3	276 (40.0 psi)	0	4.0	0.0	0.00	40.0	4.7		
		1	9.1	5.1	1.58	40.0			
		2	14.1	5.0	1.55	40.0			
		3	19.5	5.4	1.68	40.0			
		4	24.2	4.7	1.46	40.0			
		5	29.0	4.8	1.49	40.0			
		6	33.7	4.7	1.46	40.0			
		7	38.1	4.4	1.37	40.0			
		8	42.4	4.3	1.34	40.0			
		9	46.4	4.0	1.24	40.0			
		10	50.1	3.7	1.15	40.0			
		11	53.8	3.7	1.15	40.0			
		12	57.4	3.6	1.12	40.0			
		13	60.6	3.2	0.99	40.0			
		14	63.8	3.2	0.99	40.0			
		15	66.9	3.1	0.96	40.0			
4	207 (30.0 psi)	0	3.0	0.0	0.00	30.0	4.6		
		1	6.2	3.2	0.99	30.0			
		2	9.4	3.2	0.99	30.0			
		3	12.3	2.9	0.90	30.0			
		4	15.3	3.0	0.93	30.0			
		5	18.5	3.2	0.99	30.0			
		6	21.4	2.9	0.90	30.0			
		7	24.3	2.9	0.90	30.0			
		8	27.5	3.2	0.99	30.0			
		9	30.6	3.1	0.96	30.0			
		10	33.6	3.0	0.93	30.0			
5	138 (20.0 psi)	0	5.0	0.0	0.00	20.0	6.5		
		1	8.1	3.1	0.96	20.0			
		2	10.7	2.6	0.81	20.0			
		3	13.6	2.9	0.90	20.0			
		4	16.3	2.7	0.84	20.0			
		5	19.3	3.0	0.93	20.0			
		6	22.2	2.9	0.90	20.0			
		7	25.0	2.8	0.87	20.0			
		8	28.0	3.0	0.93	20.0			
		9	31.0	3.0	0.93	20.0			
		10	34.0	3.0	0.93	20.0			
<b>Calculations</b>				<b>Calculations</b>					
Maximum testing pressure:				Pmax = 25H (kPa)					
kPa in psi, multiplied by 0.14									
psi in kPa, multiplied by 6.9									
Q = del B / del t									
A = Q / Zbottom - Ztop									
Lu = (avg. A x 1000) / P				Lugeon Value used for calc Lu = 4.6					
Corresponding pressure P (kPa) = 207									
<b>Isotropic Hydraulic Conductivity:</b>				<b>Isotropic Hydraulic Conductivity:</b>					
Equation (after Bliss and Ruston, 1984):				Equation (after Bliss and Ruston, 1984):					
$k = (Q / (2 \times \pi \times L \times h)) \times \ln (L / r)$				$k = (Q / (2 \times \pi \times L \times h)) \times \ln (L / r)$					
<b>k = 4.33E-05 cm/s</b>				<b>k = 4.33E-05 cm/s</b>					
Interpreted Lugeon pattern (after Hously, 1976, and Quinozes, 2010)				<b>TURBULENT</b>					
Notes:				Notes:					
<b>Calculations by:</b> Amir Niazi				<b>Verified by:</b> Brad Trytten, P.Geo.					





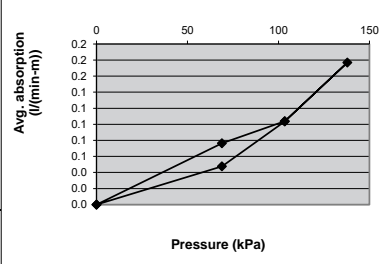
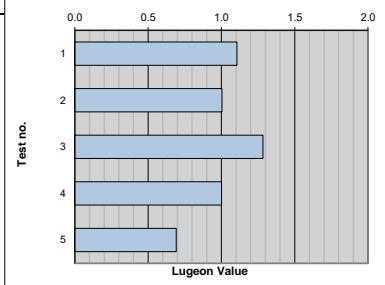
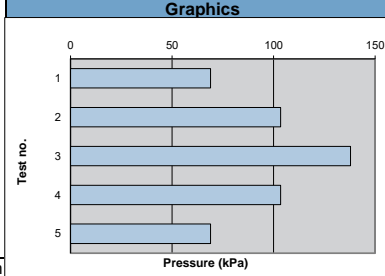
**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 22.96 m Z bottom = 25.74 m		<b>Depth to rock =</b> 5.16 m			<b>Interval Number:</b> 1		
		<b>Water Level:</b> depth (hw) = 0.61 m			<b>Project Number:</b> 11222385		
					<b>Test Hole:</b> MW51B		
					<b>Test Date/Time:</b> 11/22/21		
<b>Graphics</b>							
<b>Water Pressure Test</b>							
Drill hole size: HQ3							
Borehole diameter: D= 9.60 cm							
Packer type: SINGLE							
Drill rod diameter: d= - cm							
Test length: L= 2.78 m							
Height of gauge above ground: 0.76							
<b>Gravity head:</b> H0 = h1 + hw = 1.37 m							
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>	<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	69 (10.0 psi)	0	6.4	0.0	0.00		0.9
		1	6.9	0.4	0.15	10.0	
		2	7.2	0.4	0.14	10.0	
		3	7.5	0.3	0.10	10.0	
		4	7.6	0.1	0.03	10.0	
		5	7.7	0.1	0.04	10.0	
		6	7.9	0.2	0.07	10.0	
		7	8.1	0.2	0.07	10.0	
		8	8.3	0.2	0.07	10.0	
		9	8.4	0.2	0.05	10.0	
10	8.6	0.2	0.05	10.0			
2	103 (15.0 psi)	0	9.5	0.0	0.00		0.7
		1	9.7	0.2	0.07	15.0	
		2	9.8	0.2	0.07	15.0	
		3	10.0	0.2	0.07	15.0	
		4	10.3	0.3	0.10	15.0	
		5	10.6	0.3	0.11	15.0	
		6	10.8	0.2	0.07	15.0	
		7	11.0	0.2	0.07	15.0	
		8	11.2	0.2	0.07	15.0	
		9	11.4	0.2	0.07	15.0	
10	11.5	0.2	0.07	15.0			
3	138 (20.0 psi)	0	12.5	0.0	0.00		0.7
		1	12.8	0.3	0.10	20.0	
		2	13.2	0.4	0.15	20.0	
		3	13.3	0.2	0.05	20.0	
		4	13.6	0.2	0.08	20.0	
		5	13.9	0.3	0.12	20.0	
		6	14.1	0.2	0.08	20.0	
		7	14.3	0.2	0.08	20.0	
		8	14.5	0.2	0.07	20.0	
		9	14.7	0.2	0.07	20.0	
		10	14.9	0.2	0.07	20.0	
11							
4	103 (15.0 psi)	0	15.1	0.0	0.00		0.5
		1	15.2	0.0	0.01	15.0	
		2	15.2	0.0	0.01	15.0	
		3	15.4	0.2	0.08	15.0	
		4	15.6	0.2	0.05	15.0	
		5	15.7	0.1	0.04	15.0	
		6	15.8	0.1	0.04	15.0	
		7	15.9	0.1	0.04	15.0	
		8	16.1	0.1	0.04	15.0	
		9				15.0	
10				15.0			
5	69 (10.0 psi)	0	16.2	0.0	0.00		0.0
		1	16.2	0.0	0.00	10.0	
		2	16.2	0.0	0.00	10.0	
		3	16.2	0.0	0.00	10.0	
		4	16.2	0.0	0.00	10.0	
		5	16.2	0.0	0.00	10.0	
		6	16.2	0.0	0.00	10.0	
		7				10.0	
		8				10.0	
		9				10.0	
10				10.0			
<b>Calculations</b>							
Maximum testing pressure: Pmax = 25H (kPa)							
kPa in psi, multiplied by 0.14							
psi in kPa, multiplied by 6.9							
Q = del B / del t							
A = Q / Zbottom - Ztop							
Lu = (avg. A x 1000) / P							
Lugeon Value used for calc Lu = 0.5							
Corresponding pressure P (kPa) = 103.4							
<b>Isotropic Hydraulic Conductivity:</b>							
Equation (after Bliss and Ruston, 1984): $k = (Q / (2 \times \pi \times L \times h)) \times \ln (L / r)$							
$k = 4.65E-06 \text{ cm/s}$							
Interpreted Lugeon pattern (after Hously, 1976, and Quinozes, 2010) <b>VOID FILLING</b>							
Notes:							
<b>Calculations by:</b> Amir Niazi				<b>Verified by:</b> Brad Trytten, P.Geo.			



**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 7.98 m Z bottom = 10.76 m		<b>Depth to rock =</b> 5.16 m		<b>Interval Number:</b> 2					
		<b>Water Level:</b> depth (hw) = 0.61 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> MW51B					
				<b>Test Date/Time:</b> 11/22/21					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 2.78 m									
Height of gauge above ground: 0.76									
Gravity head: H0 = h1 + hw = 1.37 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	69 (10.0 psi)	0	17.8			0.0	0.00		1.1
		1	18.1			0.3	0.11	10.0	
		2	18.2	0.1	0.04	10.0			
		3	18.5	0.3	0.10	10.0			
		4	18.7	0.2	0.07	10.0			
		5	18.9	0.2	0.08	10.0			
		6	19.0	0.2	0.05	10.0			
		7	19.3	0.2	0.08	10.0			
		8	19.4	0.1	0.04	10.0			
		9	19.6	0.2	0.08	10.0			
		10	19.8	0.2	0.06	10.0			
		11	19.9	0.2	0.05	10.0			
12	20.1	0.2	0.05	10.0					
2	103 (15.0 psi)	0	20.8	0.0	0.00		1.0		
		1	21.2	0.3	0.12	15.0			
		2	21.5	0.3	0.12	15.0			
		3	21.8	0.3	0.10	15.0			
		4	22.0	0.3	0.10	15.0			
		5	22.3	0.3	0.11	15.0			
		6	22.6	0.3	0.10	15.0			
		7	22.9	0.3	0.10	15.0			
		8	23.1	0.3	0.10	15.0			
		9							
10									
3	138 (20.0 psi)	0	23.8	0.0	0.00		1.3		
		1	24.4	0.6	0.20	20.0			
		2	24.9	0.5	0.19	20.0			
		3	25.3	0.4	0.14	20.0			
		4	25.8	0.5	0.18	20.0			
		5	26.4	0.6	0.22	20.0			
		6	26.8	0.4	0.14	20.0			
		7	27.3	0.5	0.18	20.0			
		8	27.8	0.5	0.18	20.0			
		9	28.3	0.5	0.18	20.0			
		10	28.8	0.5	0.18	20.0			
11									
4	103 (15.0 psi)	0	29.1	0.0	0.00		1.0		
		1	29.5	0.3	0.11	15.0			
		2	29.8	0.3	0.11	15.0			
		3	30.1	0.3	0.11	15.0			
		4	30.3	0.2	0.08	15.0			
		5	30.6	0.3	0.11	15.0			
		6	30.9	0.3	0.11	15.0			
		7	31.2	0.3	0.11	15.0			
		8	31.4	0.2	0.08	15.0			
		9	31.7	0.3	0.11	15.0			
		10							
5	69 (10.0 psi)	0	31.8	0.0	0.00		0.7		
		1	31.8	0.0	0.01	10.0			
		2	31.9	0.1	0.03	10.0			
		3	32.1	0.2	0.05	10.0			
		4	32.2	0.1	0.04	10.0			
		5	32.3	0.1	0.04	10.0			
		6	32.5	0.2	0.07	10.0			
		7	32.6	0.1	0.04	10.0			
		8	32.7	0.1	0.04	10.0			
		9	32.8	0.1	0.04	10.0			
10	32.9	0.1	0.04	10.0					
<b>Calculations by:</b> Amir Niazi				<b>Verified by :</b> Brad Trytten, P.Geo.					



**Calculations**

Maximum testing pressure:  
 $P_{max} = 25H$  (kPa)  
 kPa in psi, multiplied by 0.14  
 psi in kPa, multiplied by 6.9  
 $Q = \Delta B / \Delta t$   
 $A = Q / (Z_{bottom} - Z_{top})$   
 $Lu = (avg. A \times 1000) / P$   
 Lugeon Value used for calc Lu = 1.0  
 Corresponding pressure P (kPa) = 96.5

**Isotropic Hydraulic Conductivity:**

Equation (after Bliss and Ruston, 1984):  
 $k = (Q / (2 \times \pi \times L \times h)) \times \ln(L / r)$

$k = 9.38E-06$  cm/s

Interpreted Lugeon pattern  
 (after Houltsby, 1976, and Quinozes, 2010) **LAMINAR**

Notes:



**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

Testing depth		Depth to rock = 0.71 m		Interval Number: 2					
Z top (H) = 25.62 m		<b>Water Level:</b>		Project Number: 11222385					
Z bottom = 28.40 m		depth (hw) = 2.85 m		Test Hole: MW56B					
				Test Date/Time: 11/10/21					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 2.78 m									
Height of gauge above ground: 0.76									
Gravity head:									
H0 = h1 + hw = 3.61 m									
Test no	Pressure P (kPa)	Time t (min)	Reading B (litre)			Flow Q (l/min)	Absorption A (l/min-m)	Pressure Gauge (psi)	Lugeon Value (Lu)
1	69 (10.0 psi)	0	26.5			0.0	0.00		31.0
		1	32.6	6.1	2.21	10.0			
		2	38.8	6.2	2.22	10.0			
		3	44.7	5.9	2.11	10.0			
		4	50.3	5.7	2.04	10.0			
		5	56.2	5.9	2.11	10.0			
		6	62.5	6.2	2.25	10.0			
		7	68.5	6.1	2.18	10.0			
		8	74.6	6.1	2.18	10.0			
		9	80.6	6.1	2.18	10.0			
		10	86.7	6.1	2.18	10.0			
		11							
12									
2	103 (15.0 psi)	0	107.9	0.0	0.00		30.1		
		1	117.0	9.1	3.27	15.0			
		2	125.7	8.7	3.13	15.0			
		3	134.7	9.0	3.24	15.0			
		4	143.3	8.6	3.09	15.0			
		5	151.7	8.4	3.04	15.0			
		6	160.2	8.5	3.05	15.0			
		7	168.7	8.5	3.05	15.0			
		8	177.1	8.4	3.04	15.0			
		9	185.6	8.4	3.04	15.0			
		10	194.0	8.4	3.04	15.0			
3	138 (20.0 psi)	0	210.1	0.0	0.00		26.3		
		1	221.1	11.0	3.95	20.0			
		2	231.9	10.8	3.88	20.0			
		3	242.1	10.2	3.68	20.0			
		4	252.5	10.4	3.74	20.0			
		5	262.5	10.0	3.61	20.0			
		6	272.6	10.1	3.64	20.0			
		7	282.8	10.1	3.65	20.0			
		8	292.9	10.1	3.64	20.0			
		9	302.9	10.0	3.61	20.0			
		10	312.9	10.0	3.61	20.0			
4	103 (15.0 psi)	0	325.5	0.0	0.00		24.9		
		1	332.6	7.0	2.53	15.0			
		2	339.7	7.2	2.57	15.0			
		3	346.9	7.2	2.59	15.0			
		4	354.2	7.3	2.63	15.0			
		5	361.5	7.3	2.61	15.0			
		6	368.5	7.0	2.52	15.0			
		7	375.5	7.0	2.52	15.0			
		8	382.5	7.0	2.52	15.0			
		9	389.5	7.0	2.52	15.0			
		10							
5	69 (10.0 psi)	0	401.3	0.0	0.00		25.5		
		1	406.0	4.7	1.70	10.0			
		2	410.6	4.6	1.65	10.0			
		3	415.3	4.8	1.72	10.0			
		4	420.3	4.9	1.77	10.0			
		5	425.2	4.9	1.77	10.0			
		6	430.1	4.9	1.77	10.0			
		7	435.0	4.9	1.77	10.0			
		8	439.9	4.9	1.77	10.0			
		9							
		10							
<b>Calculations</b>									
Maximum testing pressure:				Pmax = 25H (kPa)					
kPa in psi, multiplied by 0.14				psi in kPa, multiplied by 6.9					
Q = del B / del t				A = Q / Zbottom - Ztop					
Lu = (avg. A x 1000) / P				Lugeon Value used for calc Lu = 27.6					
				Corresponding pressure P (kPa) = 96.5					
<b>Isotropic Hydraulic Conductivity:</b>									
Equation (after Bliss and Ruston, 1984):				k = (Q / (2 x pi x L x h)) x ln (L / r)					
				k = 2.12E-04 cm/s					
Interpreted Lugeon pattern (after Houltsby, 1976, and Quinozes, 2010)				LAMINAR					
Notes:									
Calculations by: Amir Niazi									
Verified by: Brad Trytten, P.Geo.									

**Report on Bedrock Permeability Testing  
(Lugeon Pressure-Injection Testing)**

<b>Testing depth</b> Z top (H) = 15.16 m Z bottom = 17.94 m		<b>Depth to rock =</b> 0.71 m		<b>Interval Number:</b> 2					
		<b>Water Level:</b> depth (hw) = 2.85 m		<b>Project Number:</b> 11222385					
				<b>Test Hole:</b> MW56B					
				<b>Test Date/Time:</b> 11/10/21					
<b>Water Pressure Test</b>				<b>Graphics</b>					
Drill hole size: HQ3									
Borehole diameter: D= 9.60 cm									
Packer type: SINGLE									
Drill rod diameter: d= - cm									
Test length: L= 2.78 m									
Height of gauge above ground: 0.76									
Gravity head: H0 = h1 + hw = 3.61 m									
<b>Test no</b>	<b>Pressure P (kPa)</b>	<b>Time t (min)</b>	<b>Reading B (litre)</b>			<b>Flow Q (l/min)</b>	<b>Absorption A (l/min-m)</b>	<b>Pressure Gauge (psi)</b>	<b>Lugeon Value (Lu)</b>
1	55 (8.0 psi)	0	30.3			0.0	0.00	8.0	14.2
		1	33.1			2.8	1.02		
		2	35.9	2.8	0.99				
		3	38.5	2.6	0.94				
		4	40.7	2.2	0.79				
		5	42.8	2.1	0.75				
		6	44.7	1.9	0.68				
		7	46.7	2.1	0.75				
		8	48.6	1.9	0.68				
		9	50.5	1.9	0.68				
		10	52.4	1.9	0.68				
		11							
12									
2	83 (12.0 psi)	0	56.8	0.0	0.00	12.0	11.1		
		1	59.7	3.0	1.06				
		2	62.3	2.6	0.94				
		3	64.9	2.5	0.91				
		4	67.4	2.5	0.90				
		5	70.0	2.6	0.94				
		6	72.4	2.4	0.87				
		7	75.0	2.5	0.91				
		8	77.3	2.3	0.83				
		9	79.7	2.4	0.87				
		10	82.1	2.4	0.87				
3	110 (16.0 psi)	0	87.1	0.0	0.00	16.0	10.1		
		1	90.3	3.2	1.16				
		2	93.4	3.1	1.13				
		3	96.4	3.0	1.06				
		4	99.5	3.1	1.12				
		5	102.6	3.1	1.12				
		6	105.7	3.1	1.12				
		7	108.8	3.1	1.12				
		8							
		9							
		10							
11									
4	83 (12.0 psi)	0	111.7	0.0	0.00	12.0	9.9		
		1	113.9	2.2	0.79				
		2	116.0	2.2	0.78				
		3	118.3	2.3	0.82				
		4	120.6	2.3	0.82				
		5	122.8	2.3	0.82				
		6	125.1	2.3	0.82				
		7							
		8							
		9							
		10							
5	55 (8.0 psi)	0	127.9	0.0	0.00	8.0	10.2		
		1	129.5	1.5	0.54				
		2	131.0	1.5	0.54				
		3	132.5	1.5	0.54				
		4	134.1	1.6	0.57				
		5	135.8	1.7	0.63				
		6	137.3	1.5	0.54				
		7	138.8	1.5	0.54				
		8	140.4	1.5	0.54				
		9							
		10							
<b>Calculations</b>									
Maximum testing pressure: Pmax = 25H (kPa)				<b>Calculations</b> Maximum testing pressure: Pmax = 25H (kPa) kPa in psi, multiplied by 0.14 psi in kPa, multiplied by 6.9 Q = del B / del t A = Q / Zbottom - Ztop Lu = (avg. A x 1000) / P Lugeon Value used for calc Lu = 10.1 Corresponding pressure P (kPa) = 110.3					
				<b>Isotropic Hydraulic Conductivity:</b>					
				Equation (after Bliss and Ruston, 1984): $k = (Q / (2 \times \pi \times L \times h)) \times \ln (L / r)$ <b>k = 8.05E-05 cm/s</b>					
				Interpreted Lugeon pattern (after Houltsby, 1976, and Quinozes, 2010) <b>LAMINAR</b>					
<b>Calculations by:</b> Amir Niazi				<b>Notes:</b>					
						<b>Verified by:</b> Brad Trytten, P.Geo.			

# **Attachment 4**

## **Groundwater Quality Results**

**Table 4.1 - Groundwater Results - General Chemistry**  
**Goldboro Gold Project, Guysborough County, NS**

Parameters <sup>a</sup>	Units	Criteria			MW1-A	MW1-B	MW5-A			MW5-B			MW6-A			MW6-B		
		Potable Water <sup>b</sup>	CCME; FWAL	NS Tier II PSS; GW > 10m from SW	MW1-A	MW1-B	MW5-A	MW5-A	MW5-A	MW5-B	MW5-B	MW5-B	MW6-A	MW6-A	MW6-A	MW6-B	MW6-B	MW6-B
Date					12/17/2021	12/17/2021	7/21/2021	10/26/2021	12/16/2021	7/21/2021	10/26/2021	12/16/2021	7/21/2021	10/27/2021	12/16/2021	7/21/2021	10/27/2021	12/16/2021
<b>Calculated Parameters</b>																		
Anion Sum	me/L	NV	NV	NV	0.33	0.9	1.35	1.59	1.29	1.35	1.37	1.26	0.360	0.440	0.31	2.69	2.76	2.47
Bicarb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	NV	NV	NV	6.5	31	52	65	51	55	58	54	7.1	9.0	7.3	96	120	99
Calculated TDS	mg/L	NV	NV	NV	23	62	84	100	86	84	86	81	27	34	23	160	160	150
Carb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	NV	NV	NV	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.2	3.0	3.5
Cation Sum	me/L	NV	NV	NV	0.29	0.81	1.20	1.70	1.5	1.28	1.32	1.36	0.360	0.530	0.35	2.61	2.66	2.66
Hardness (CaCO <sub>3</sub> )	mg/L	NV	NV	NV	2.9	21	34	44	40	45	46	49	6.5	10.0	5.9	13	12	11
Ion Balance (% Difference)	%	NV	NV	NV	6.45	5.26	5.88	3.34	7.53	2.66	1.86	3.82	0.00	9.28	6.06	1.51	1.85	3.7
Langelier Index (@ 20C)	N/A	NV	NV	NV	-4.73	-1.84	-1.37	-1.36	-1.18	-1.20	-1.40	-1.09	-4.41	-4.37	-4.17	-0.0850	-0.2700	-0.243
Langelier Index (@ 4C)	N/A	NV	NV	NV	-4.98	-2.09	-1.62	-1.61	-1.43	-1.45	-1.65	-1.34	-4.66	-4.62	-4.42	-0.335	-0.521	-0.494
Nitrate (N)	mg/L	10	13	130	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.078	0.051	<0.050	<0.050	<0.050
Saturation pH (@ 20C)	N/A	NV	NV	NV	10.8	9.01	8.56	8.35	8.49	8.41	8.39	8.37	10.2	10.0	10.3	8.76	8.71	8.82
Saturation pH (@ 4C)	N/A	NV	NV	NV	11.1	9.26	8.81	8.60	8.75	8.66	8.64	8.63	10.5	10.3	10.6	9.01	8.96	9.07
<b>Inorganics</b>																		
Total Alkalinity (Total as CaCO <sub>3</sub> )	mg/L	NV	NV	NV	6.5	31	52	65	51	55	58	54	7.1	9.0	7.3	100	120	100
Total Chemical Oxygen Demand	mg/L	NV	NV	NV	<20	<20	26	42	48	21	<20	22	33	32	<20	45	28	<20
Dissolved Chloride (Cl <sup>-</sup> )	mg/L	NV	120	1200	4.7	5.9	7.5	8.4	7	6.6	7.4	6.4	5.9	7.0	5.6	11	7	6.5
Colour	TCU	NV	NV	NV	<5.0	5.7	53	140	140	6.0	67.0	60	<5.0	<5.0	6.3	26	12	14
Nitrate + Nitrite (N)	mg/L	NV	NV	NV	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.078	0.051	<0.050	<0.050	<0.050
Nitrite (N)	mg/L	1	0.06	0.6	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrogen (Ammonia Nitrogen)	mg/L	NV	0.016	NV	<0.050	<0.050	<0.050	<b>0.056</b>	<0.050	<0.050	<b>0.064</b>	<0.050	<0.050	<b>0.055</b>	<0.050	<b>0.15</b>	<b>0.10</b>	<b>0.063</b>
Dissolved Organic Carbon (C)	mg/L	NV	NV	NV	1.4	2.1	7.4	14.0	15	2.3	6.4	6	0.6	1.7	2.5	15	4	2.6
Total Organic Carbon (C)	mg/L	NV	NV	NV	1.5	3.3	8.3	14.0	17	2.4	6.8	7.6	0.55	<5.0	3.2	8.5	<5.0	4.4
Orthophosphate (P)	mg/L	NV	NV	NV	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.024	0.015	0.017
pH	pH	NV	6.5 - 9.0	NV	<b>6.09</b>	7.17	7.20	6.99	7.32	7.22	6.99	7.28	<b>5.82</b>	<b>5.66</b>	<b>6.15</b>	8.67	8.44	8.58
Total Phosphorus	mg/L	NV	NV	NV	<0.020	<0.020	0.036	0.027	<0.020	0.023	0.023	<0.020	1.2	<0.020	<0.020	0.20	<0.020	<0.020
Dissolved Phosphorus (P)	mg/L	NV	NV	NV	0.31	0.038	0.0041	0.1400	0.18	0.0032	0.0200	0.033	0.0044	2.0000	0.18	0.016	0.140	0.092
Reactive Silica (SiO <sub>2</sub> )	mg/L	NV	NV	NV	4.6	15	14	14	12	15	15	14	6.5	6.6	5.7	8.1	8.3	7.8
Total Suspended Solids	mg/L	NV	NV	NV	83	29	23	68	360	27	14	26	600	4000	260	74	130	65
Dissolved Sulphate (SO <sub>4</sub> )	mg/L	NV	NV	NV	3.3	5.3	5.1	2.1	3.5	3.2	<2.0	<2.0	2.2	2.7	<2.0	17	8	12
Total Cyanide (CN)	mg/L	0.2	0.005	0.05	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Turbidity	NTU	NV	NV	NV	13	7	22	57	99	14	9	26	3.3	500.0	42	180	67	47
WAD Cyanide (Free)	mg/L	NV	NV	NV	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Conductivity	uS/cm	NV	NV	NV	35	85	110	130	120	120	120	120	36	43	41	260	250	250

**Notes:**

a - General chemistry parameters are generally not considered potential COCs with the exception of chloride and sulphate.

b - Potable water criteria are the lowest of the Guidelines of Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and the NS Tier I Environmental Quality Standards (EQS) (potable, residential, coarse)

NV - No value

**Screening:**

Shaded Indicates values are greater than potable water criteria

**Bold** Indicates values are greater than CCME FWAL

Underlined Indicates values are greater than NS Tier II PSS

**References:**

Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ)

Nova Scotia Tier I Environmental Quality Standards (EQS) for groundwater, potable, residential, coarse

Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines for the Protection of Freshwater Aquatic Life (FWAL)

Nova Scotia Tier II Pathway Specific Standards (PSS) for Groundwater Discharging to Surface Water, >10 m from Surface Water Body

**Table 4.1 - Groundwater Results - General Chemistry**  
**Goldboro Gold Project, Guysborough County, NS**

Parameters <sup>a</sup>	Units	Criteria			MW7-A				MW7-B			MW15-A			MW15-B			MW16-A	MW16-B
		Potable Water <sup>b</sup>	CCME; FWAL	NS Tier II PSS; GW > 10m from SW	MW7-A	MW7-A	MWB	MW7-A	MW7-B	MW7-B	MW7-B	MW15-A	MW15-A	MW15-A	MW15-B	MW15-B	MW15-B	MW16-A	MW16-B
Date					7/21/2021	10/27/2021	10/27/2021	12/16/2021	7/21/2021	10/27/2021	12/16/2021	7/21/2021	10/27/2021	12/16/2021	7/21/2021	10/27/2021	12/16/2021	12/16/2021	12/16/2021
<b>Calculated Parameters</b>																			
Anion Sum	me/L	NV	NV	NV	0.410	0.46	0.46	0.3	5.47	3.22	2.6	1.59	1.70	1.96	3.27	4.20	3.52	2.37	2.43
Bicarb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	NV	NV	NV	9.6	9.9	10	5.6	120	130	110	71	73	89	120	170	140	96	110
Calculated TDS	mg/L	NV	NV	NV	29	33	33	25	330	190	150	100	140	170	190	240	210	140	140
Carb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	NV	NV	NV	<1.0	<1.0	<1.0	<1.0	1.3	1.3	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	1.6	<1.0	1.2
Cation Sum	me/L	NV	NV	NV	0.400	0.38	0.37	0.34	5.24	3.56	2.82	1.76	2.91	3.89	3.27	3.95	3.63	2.1	2.33
Hardness (CaCO <sub>3</sub> )	mg/L	NV	NV	NV	4.6	3.3	3.4	3.4	98	120	120	27	43	47	95	130	130	58	89
Ion Balance (% Difference)	%	NV	NV	NV	1.23	9.52	10.8	6.25	2.15	5.01	4.06	5.07	26.30	33	0.00	3.07	1.54	6.04	2.1
Langelier Index (@ 20C)	N/A	NV	NV	NV	-4.22	-4.65	-4.57	-4.52	0.226	0.332	0.4	-1.63	-1.89	-2.49	0.0730	0.2440	0.44	-0.135	0.22
Langelier Index (@ 4C)	N/A	NV	NV	NV	-4.48	-4.9	-4.82	-4.77	-0.0230	0.0820	0.149	-1.88	-2.14	-2.74	-0.177	-0.006	0.19	-0.386	-0.031
Nitrate (N)	mg/L	10	13	130	0.072	0.063	<0.050	0.066	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Saturation pH (@ 20C)	N/A	NV	NV	NV	10.3	10.5	10.5	10.7	7.82	7.71	7.75	8.61	8.40	8.29	7.81	7.55	7.62	8.09	7.87
Saturation pH (@ 4C)	N/A	NV	NV	NV	10.6	10.8	10.7	11	8.07	7.96	8	8.86	8.66	8.54	8.06	7.80	7.87	8.34	8.12
<b>Inorganics</b>																			
Total Alkalinity (Total as CaCO <sub>3</sub> )	mg/L	NV	NV	NV	9.6	9.9	10	5.6	130	130	110	71	73	89	120	170	140	96	110
Total Chemical Oxygen Demand	mg/L	NV	NV	NV	<20	<20	<20	<20	66	<20	<20	120	160	230	28	<20	<20	22	<20
Dissolved Chloride (Cl <sup>-</sup> )	mg/L	NV	120	1200	5.7	6.6	6.6	3.7	27	11	7.5	6.2	8.6	6.7	7.8	7.1	5	5.2	5.1
Colour	TCU	NV	NV	NV	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	60	550	45	14	<5.0	<5.0	<5.0	<5.0
Nitrate + Nitrite (N)	mg/L	NV	NV	NV	0.072	0.074	0.069	0.066	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Nitrite (N)	mg/L	1	0.06	0.6	<0.010	0.011	0.038	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.012	<0.010	<0.010	<0.010
Nitrogen (Ammonia Nitrogen)	mg/L	NV	0.016	NV	<0.050	<0.050	<0.050	<0.050	<b>0.061</b>	<b>0.056</b>	<0.050	<b>0.64</b>	<b>0.31</b>	<b>0.18</b>	<b>0.20</b>	<b>0.12</b>	<b>0.075</b>	<b>0.13</b>	<0.050
Dissolved Organic Carbon (C)	mg/L	NV	NV	NV	0.7	1.1	0.9	1.2	14	12	0.7	16	50	74 (1)	4.8	8.3	1.8	<5	0.9
Total Organic Carbon (C)	mg/L	NV	NV	NV	0.53	4.8	4.9	5.4	15	4	0.69	36	52	80 (1)	5.9	2.5	1.7	2.5	1.4
Orthophosphate (P)	mg/L	NV	NV	NV	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.023	<0.010	0.097	0.140	<0.30	0.017	<0.010
pH	pH	NV	6.5 - 9.0	NV	<b>6.08</b>	<b>5.85</b>	<b>5.9</b>	<b>6.22</b>	8.05	8.04	8.15	6.98	6.52	<b>5.8</b>	7.88	7.79	8.06	7.95	8.09
Total Phosphorus	mg/L	NV	NV	NV	0.093	<0.020	<0.020	<0.020	0.027	<0.020	<0.020	0.14	<0.020	0.033	0.35	0.03	0.031	<0.020	<0.020
Dissolved Phosphorus (P)	mg/L	NV	NV	NV	0.0025	0.073	0.18	0.1	0.0037	<0.020	<0.020	0.070	0.063	0.06	0.022	0.095	0.084	0.24	0.021
Reactive Silica (SiO <sub>2</sub> )	mg/L	NV	NV	NV	5.6	8.2	8.1	6.5	13	13	13	12	12	14	14	19	18	19	17
Total Suspended Solids	mg/L	NV	NV	NV	23	620	600	300	59	12	17	120	50	95	160	15	10	170	14
Dissolved Sulphate (SO <sub>4</sub> )	mg/L	NV	NV	NV	2.6	3.4	3.5	3.6	110	17	8	<2.0	<2.0	<2.0	29	29	24	14	5.2
Total Cyanide (CN)	mg/L	0.2	0.005	0.05	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Turbidity	NTU	NV	NV	NV	5.7	220	98	120	22	14	14	98	22	100	230	13	9.9	240	16
WAD Cyanide (Free)	mg/L	NV	NV	NV	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Conductivity	uS/cm	NV	NV	NV	41	43	44	40	550	300	250	150	170	210	310	370	330	210	220

**Notes:**

a - General chemistry parameters are generally not considered potential COCs with the exception of chloride and sulphate.

b - Potable water criteria are the lowest of the Guidelines of Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and the NS Tier I Environmental Quality Standards (EQS) (potable, residential, coarse)

NV - No value

**Screening:**

Shaded Indicates values are greater than potable water criteria

**Bold** Indicates values are greater than CCME FWAL

Underlined Indicates values are greater than NS Tier II PSS

**References:**

Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ)

Nova Scotia Tier I Environmental Quality Standards (EQS) for groundwater, potable, residential, coarse

Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines for the Protection of Freshwater Aquatic Life (FWAL)

Nova Scotia Tier II Pathway Specific Standards (PSS) for Groundwater Discharging to Surface Water, >10 m from Surface Water Body

**Table 4.1 - Groundwater Results - General Chemistry**  
**Goldboro Gold Project, Guysborough County, NS**

Parameters <sup>a</sup>	Units	Criteria			MW20-A			MW20-B				MW21-A	MW21-B	MW23-A	MW23-B	MW26-A	
		Potable Water <sup>b</sup>	CCME; FWAL	NS Tier II PSS; GW > 10m from SW	MW20-A	MW20-A	MW20-A	MW20-B	MW DUP	MW20-B	MW20-B	MW21-A	MW21-B	MW23-A	MW23-B	MW26-A	MW26-A
Date					7/21/2021	10/27/2021	12/16/2021	7/21/2021	7/21/2021	10/27/2021	12/16/2021	12/16/2021	12/16/2021	12/16/2021	12/16/2021	10/27/2021	12/15/2021
<b>Calculated Parameters</b>																	
Anion Sum	me/L	NV	NV	NV	0.910	0.950	0.93	2.30	2.27	2.63	2.66	1.33	2.23	0.38	1.08	1	0.6
Bicarb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	NV	NV	NV	26	28	31	100	100	120	120	49	96	5.8	38	35	16
Calculated TDS	mg/L	NV	NV	NV	76	70	83	130	130	140	150	86	130	27	65	65	44
Carb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	NV	NV	NV	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cation Sum	me/L	NV	NV	NV	1.45	1.15	1.72	2.39	2.36	2.56	2.5	1.26	2.17	0.4	1.22	0.83	0.52
Hardness (CaCO <sub>3</sub> )	mg/L	NV	NV	NV	15	11	16	88	86	100	97	38	83	4.7	35	24	12
Ion Balance (% Difference)	%	NV	NV	NV	22.9	9.5	29.8	1.92	1.94	1.35	3.1	2.7	1.36	2.56	6.09	9.29	7.14
Langelier Index (@ 20C)	N/A	NV	NV	NV	-2.94	-2.74	-2.43	-0.111	0.0230	0.1390	0.274	-1.58	0.067	-4.65	-0.868	-2.4	-2.9
Langelier Index (@ 4C)	N/A	NV	NV	NV	-3.19	-2.99	-2.68	-0.362	-0.228	-0.111	0.024	-1.83	-0.183	-4.9	-1.12	-2.65	-3.15
Nitrate (N)	mg/L	10	13	130	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.091	<0.050	<0.050	0.051
Saturation pH (@ 20C)	N/A	NV	NV	NV	9.30	9.41	9.19	7.91	7.92	7.77	7.8	8.55	7.95	10.6	8.67	8.91	9.57
Saturation pH (@ 4C)	N/A	NV	NV	NV	9.55	9.67	9.45	8.16	8.18	8.02	8.05	8.8	8.2	10.8	8.92	9.17	9.82
<b>Inorganics</b>																	
Total Alkalinity (Total as CaCO <sub>3</sub> )	mg/L	NV	NV	NV	26	28	31	100	100	120	120	49	97 (1)	5.8	38	36	16
Total Chemical Oxygen Demand	mg/L	NV	NV	NV	<20	39	<20	33	42	<20	<20	60	29	<20	230	21	<20
Dissolved Chloride (Cl <sup>-</sup> )	mg/L	NV	120	1200	14	12	9.5	8.2	7.3	5.5	5.6	6.8	5.5	6.2	7.6	7.4	6.3
Colour	TCU	NV	NV	NV	49	8	14	25	13	8	<5.0	<5.0	<5.0	<5.0	180	<5.0	<5.0
Nitrate + Nitrite (N)	mg/L	NV	NV	NV	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.091	<0.050	<0.050	0.051
Nitrite (N)	mg/L	1	0.06	0.6	<0.010	0.037	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.011	<0.010
Nitrogen (Ammonia Nitrogen)	mg/L	NV	0.016	NV	<0.050	<b>0.06</b>	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<b>0.071</b>	<0.050	<b>0.093</b>	<b>0.064</b>	<0.050
Dissolved Organic Carbon (C)	mg/L	NV	NV	NV	4.1	1.4	1.9	3.4	3.5	2.1	2.2	9.7	5.3	1.5	45	0.6	1.3
Total Organic Carbon (C)	mg/L	NV	NV	NV	3.2	2.2	1.6	9.2	9.5	<0.50	1.2	11 (2)	5.6	2	56 (2)	0.6	0.69
Orthophosphate (P)	mg/L	NV	NV	NV	<0.010	<0.010	<0.010	<0.010	<0.010	0.012	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
pH	pH	NV	6.5 - 9.0	NV	<b>6.35</b>	6.68	6.77	7.80	7.95	7.91	8.08	6.97	8.02	<b>5.93</b>	7.8	6.52	6.67
Total Phosphorus	mg/L	NV	NV	NV	0.079	0.023	<0.020	0.052	0.054	0.023	<0.020	<0.020	0.023	<0.020	<0.020	0.02	<0.020
Dissolved Phosphorus (P)	mg/L	NV	NV	NV	0.0011	1.5000	0.34	0.0099	0.0085	<0.020	0.027	0.45	0.055	0.062	0.18	1	0.11
Reactive Silica (SiO <sub>2</sub> )	mg/L	NV	NV	NV	11	10	9.6	10	11	12	15	15	12	3.8	3.9	14	12
Total Suspended Solids	mg/L	NV	NV	NV	74	430	150	43	20	12	15	250	83	300	99	140	140
Dissolved Sulphate (SO <sub>4</sub> )	mg/L	NV	NV	NV	<2.0	2.1	2.4	2.3	2.6	<2.0	2.9	7.6	7.1	4.1	4.6	3.8	4.4
Total Cyanide (CN)	mg/L	0.2	0.005	0.05	<0.0050	<b>0.032</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Turbidity	NTU	NV	NV	NV	96	640	180	32	19	2	5.9	98	69	9.8	180	280	84
WAD Cyanide (Free)	mg/L	NV	NV	NV	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Conductivity	uS/cm	NV	NV	NV	91	91	95	210	220	230	230	120	210	38	100	87	59

**Notes:**

a - General chemistry parameters are generally not considered potential COCs with the exception of chloride and sulphate.

b - Potable water criteria are the lowest of the Guidelines of Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and the NS Tier I Environmental Quality Standards (EQS) (potable, residential, coarse)

NV - No value

**Screening:**

Shaded Indicates values are greater than potable water criteria

**Bold** Indicates values are greater than CCME FWAL

Underlined Indicates values are greater than NS Tier II PSS

**References:**

Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ)

Nova Scotia Tier I Environmental Quality Standards (EQS) for groundwater, potable, residential, coarse

Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines for the Protection of Freshwater Aquatic Life (FWAL)

Nova Scotia Tier II Pathway Specific Standards (PSS) for Groundwater Discharging to Surface Water, >10 m from Surface Water Body



**Table 4.1 - Groundwater Results - General Chemistry**  
**Goldboro Gold Project, Guysborough County, NS**

Parameters <sup>a</sup>	Units	Criteria			MW26-B				MW29-A	MW29-B	MW30-A		MW30-B		MW42-A		MW42-B		MW43-A		
		Potable Water <sup>b</sup>	CCME; FWAL	NS Tier II PSS; GW > 10m from SW	MW26-B	MWA	MW26-B	DUP-C	MW29-A	MW29-B	MW30-A	MW30-A	MW30-B	MW30-B	MW42-A	MW42-A	MW42-B	MW42-B	MW43-A	MW43-A	DUP-A
Date					10/27/2021	10/27/2021	12/15/2021	12/15/2021	12/17/2021	12/17/2021	10/27/2021	12/16/2021	10/27/2021	12/16/2021	10/27/2021	12/16/2021	10/27/2021	12/16/2021	10/27/2021	12/16/2021	12/16/2021
<b>Calculated Parameters</b>																					
Anion Sum	me/L	NV	NV	NV	2.55	2.65	2.95	2.89	0.41	1.08	0.43	0.29	3.27	2.44	1.23	0.63	2.62	2.65	3.04	1.12	1.14
Bicarb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	NV	NV	NV	97	100	100	98	13	16	9.4	5.1	100	100	46	23	100	99	110	47	47
Calculated TDS	mg/L	NV	NV	NV	140	150	170	170	26	73	30	22	190	140	73	55	150	150	170	74	74
Carb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	NV	NV	NV	1.3	1.6	1.6	1.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0
Cation Sum	me/L	NV	NV	NV	2.29	2.32	2.79	2.8	0.39	1.03	0.42	0.31	3.04	2.31	1.06	1.07	2.49	2.66	2.64	1.27	1.22
Hardness (CaCO <sub>3</sub> )	mg/L	NV	NV	NV	27	28	35	35	7.3	4	4	2.6	58	94	14	10	61	66	45	43	42
Ion Balance (% Difference)	%	NV	NV	NV	5.37	6.64	2.79	1.58	2.5	2.37	1.18	3.33	3.65	2.74	7.42	25.9	2.54	0.19	7.04	6.28	3.39
Langelier Index (@ 20C)	N/A	NV	NV	NV	-0.291	-0.163	-0.069	-0.045	-2.9	-3.08	-4.14	-4.86	-0.23	0.041	-2.05	-2.69	-0.126	0.031	-0.842	-1.49	-1.7
Langelier Index (@ 4C)	N/A	NV	NV	NV	-0.541	-0.414	-0.319	-0.296	-3.15	-3.34	-4.4	-5.11	-0.48	-0.21	-2.3	-2.94	-0.377	-0.22	-1.09	-1.74	-1.96
Nitrate (N)	mg/L	10	13	130	<0.050	<0.050	<0.050	<0.050	<0.050	0.38	<0.050	<0.050	<0.050	0.06	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Saturation pH (@ 20C)	N/A	NV	NV	NV	8.43	8.4	8.31	8.32	9.88	10	10.4	11	8.07	7.85	9.08	9.52	8.06	8.04	8.14	8.52	8.53
Saturation pH (@ 4C)	N/A	NV	NV	NV	8.68	8.65	8.56	8.57	10.1	10.3	10.6	11.2	8.32	8.1	9.33	9.77	8.31	8.29	8.39	8.77	8.78
<b>Inorganics</b>																					
Total Alkalinity (Total as CaCO <sub>3</sub> )	mg/L	NV	NV	NV	98	100	100	100	13	16	9.4	5.1	100	100	46	23	100	100	110	47	47
Total Chemical Oxygen Demand	mg/L	NV	NV	NV	<20	<20	<20	<20	69	22	<20	<20	28	<20	25	65	39	<20	<20	34	36
Dissolved Chloride (Cl <sup>-</sup> )	mg/L	NV	120	1200	14	14	16	15	3.3	6.1	6	4.6	13	7.7	6.1	6.3	11	11	15	6.7	6.8
Colour	TCU	NV	NV	NV	14	13	<5.0	<5.0	<5.0	<5.0	7.4	<5.0	5.3	<5.0	<5.0	12	14	10	<5.0	17	25
Nitrate + Nitrite (N)	mg/L	NV	NV	NV	<0.050	<0.050	<0.050	<0.050	<0.050	0.41	<0.050	<0.050	<0.050	0.06	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Nitrite (N)	mg/L	1	0.06	0.6	0.036	<0.010	<0.010	<0.010	<0.010	0.029	<0.010	<0.010	0.019	<0.010	0.031	<0.010	<0.010	<0.010	0.019	<0.010	<0.010
Nitrogen (Ammonia Nitrogen)	mg/L	NV	0.016	NV	<b>0.14</b>	<b>0.13</b>	<b>0.091</b>	<b>0.081</b>	<0.050	<0.050	<0.050	<0.050	<b>0.063</b>	<0.050	<b>0.087</b>	<0.050	<b>0.092</b>	<b>0.083</b>	<b>1.3</b>	<b>0.13</b>	<b>0.12</b>
Dissolved Organic Carbon (C)	mg/L	NV	NV	NV	2.9	2.8	2.4	2.5	8.7	2.9	2.2	1.3	5.5	0.6	1.4	7.8	8	4.7	3.9	7	9
Total Organic Carbon (C)	mg/L	NV	NV	NV	5.5	3.2	2.9	3.1	9.7	4.4	1.8	1.4	5.5	0.9	0.8	11 (2)	5.4	5.7	3.7	9.2	8.5
Orthophosphate (P)	mg/L	NV	NV	NV	0.019	0.019	0.047	0.054	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
pH	pH	NV	6.5 - 9.0	NV	8.14	8.24	8.24	8.27	6.99	6.94	<b>6.24</b>	<b>6.11</b>	7.84	7.89	7.03	6.83	7.93	8.07	7.3	7.03	6.83
Total Phosphorus	mg/L	NV	NV	NV	0.035	0.032	<0.020	0.027	0.023	<0.020	0.022	<0.020	<0.020	0.039	<0.020	0.035	<0.020	0.033	<0.020	<0.020	<0.020
Dissolved Phosphorus (P)	mg/L	NV	NV	NV	0.2	0.22	0.13	0.14	0.58	0.12	0.023	0.067	0.23	0.02	1.5	1.6	0.1	0.044	0.026	0.079	0.075
Reactive Silica (SiO <sub>2</sub> )	mg/L	NV	NV	NV	8.7	8.7	8.3	8.5	2.3	4.9	5	4.4	11	12	7.3	6.6	8.7	8.1	11	11	11
Total Suspended Solids	mg/L	NV	NV	NV	86	88	83	89	640	170	24	14	48	28	80	1900	83	49	590	170	140
Dissolved Sulphate (SO <sub>4</sub> )	mg/L	NV	NV	NV	9.7	9.7	21	21	2.9	27	3.5	2.9	39	9.3	6.5	<2.0	13	16	19	<2.0	<2.0
Total Cyanide (CN)	mg/L	0.2	0.005	0.05	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Turbidity	NTU	NV	NV	NV	98	83	87	62	58	86	8.8	11	30	24	85	330	160	38	11	67	78
WAD Cyanide (Free)	mg/L	NV	NV	NV	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Conductivity	uS/cm	NV	NV	NV	230	230	280	280	35	110	43	33	310	220	110	69	240	250	270	110	110

**Notes:**

a - General chemistry parameters are generally not considered potential COCs with the exception of chloride and sulphate.

b - Potable water criteria are the lowest of the Guidelines of Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and the NS Tier I Environmental Quality Standards (EQS) (potable, residential, coarse)

NV - No value

**Screening:**

Shaded Indicates values are greater than potable water criteria

**Bold** Indicates values are greater than CCME FWAL

Underlined Indicates values are greater than NS Tier II PSS

**References:**

Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ)

Nova Scotia Tier I Environmental Quality Standards (EQS) for groundwater, potable, residential, coarse

Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines for the Protection of Freshwater Aquatic Life (FWAL)

Nova Scotia Tier II Pathway Specific Standards (PSS) for Groundwater Discharging to Surface Water, >10 m from Surface Water Body

**Table 4.1 - Groundwater Results - General Chemistry**  
**Goldboro Gold Project, Guysborough County, NS**

Parameters <sup>a</sup>	Units	Criteria			MW43-B		MW46-A			MW46-B		MW51-A	MW51-B		MW54-A	MW54-B	MW55-A	MW55-B	MW56-A	MW56-B	
		Potable Water <sup>b</sup>	CCME; FWAL	NS Tier II PSS; GW > 10m from SW	MW43-B	MW43-B	MW46-A	MW46-A	DUP-D	MW46-B	MW46-B	MW51-A	MW51-B	DUP-B	MW54-A	MW54-B	MW55-A	MW55-B	MW56-A	MW56-B	
Date					10/27/2021	12/16/2021	10/27/2021	12/15/2021	12/15/2021	10/27/2021	12/15/2021	12/17/2021	12/17/2021	12/17/2021	12/17/2021	12/17/2021	12/17/2021	12/17/2021	12/17/2021	12/17/2021	
<b>Calculated Parameters</b>																					
Anion Sum	me/L	NV	NV	NV	2.13	1.56	0.81	0.77	0.81	16.6	6.62	0.36	1.84	1.83	0.68	1.69	1.07	10.6	0.42	1.55	
Bicarb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	NV	NV	NV	89	66	22	21	23	160	130	7.3	73	73	17	72	21	100	13	57	
Calculated TDS	mg/L	NV	NV	NV	120	93	57	54	55	1100	460	25	100	100	47	97	68	690	29	92	
Carb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	NV	NV	NV	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Cation Sum	me/L	NV	NV	NV	1.79	1.43	0.76	0.75	0.73	17.4	8.26	0.31	1.61	1.63	0.58	1.52	0.96	9.97	0.38	1.42	
Hardness (CaCO <sub>3</sub> )	mg/L	NV	NV	NV	62	50	17	19	19	95	98	4.9	65	65	12	60	7.6	92	9.3	47	
Ion Balance (% Difference)	%	NV	NV	NV	8.67	4.35	3.18	1.32	5.19	2.35	11	7.46	6.67	5.78	7.94	5.3	5.42	2.92	5	4.38	
Langelier Index (@ 20C)	N/A	NV	NV	NV	-0.678	-0.768	-2.89	-2.66	-2.69	-0.017	0.316	-3.92	-0.211	-0.089	-2.76	-0.438	-2.99	-0.052	-2.9	-0.5	
Langelier Index (@ 4C)	N/A	NV	NV	NV	-0.929	-1.02	-3.15	-2.91	-2.94	-0.262	0.068	-4.17	-0.462	-0.34	-3.01	-0.69	-3.24	-0.299	-3.15	-0.751	
Nitrate (N)	mg/L	10	13	130	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.097	0.21	0.19	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
Saturation pH (@ 20C)	N/A	NV	NV	NV	8.09	8.32	9.28	9.21	9.17	7.86	7.87	10.4	8.12	8.11	9.57	8.18	9.72	8.01	9.73	8.4	
Saturation pH (@ 4C)	N/A	NV	NV	NV	8.35	8.57	9.53	9.47	9.43	8.1	8.12	10.6	8.37	8.36	9.82	8.43	9.97	8.25	9.98	8.65	
<b>Inorganics</b>																					
Total Alkalinity (Total as CaCO <sub>3</sub> )	mg/L	NV	NV	NV	90	66	22	21	23	160	130	7.3	74	74	17	72	21	100	13	57	
Total Chemical Oxygen Demand	mg/L	NV	NV	NV	<20	<20	<20	22	34	370	130	<20	<20	<20	24	<20	72	210	<20	26	
Dissolved Chloride (Cl <sup>-</sup> )	mg/L	NV	120	1200	7.9	4.4	8.7	7.3	7.1	110	28	4.1	4.6	4.6	5.8	4.4	9.9	56	3.6	7.6	
Colour	TCU	NV	NV	NV	<5.0	<5.0	<5.0	<5.0	<5.0	22	6.2	<5.0	<5.0	<5.0	<5.0	<5.0	12	8.7	<5.0	27	
Nitrate + Nitrite (N)	mg/L	NV	NV	NV	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.097	0.21	0.2	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
Nitrite (N)	mg/L	1	0.06	0.6	<0.010	<0.010	0.01	<0.010	<0.010	0.012	<0.010	<0.010	<0.010	0.013	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	
Nitrogen (Ammonia Nitrogen)	mg/L	NV	0.016	NV	<0.050	<0.050	<0.050	<0.050	<0.050	<b>0.16</b>	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
Dissolved Organic Carbon (C)	mg/L	NV	NV	NV	2.6	1.4	1.1	0.9	1	77	30	1.7	1.5	1	1.5	<0.5	5	46	1.1	5.4	
Total Organic Carbon (C)	mg/L	NV	NV	NV	0.78	0.79	2.5	1.8	2.3	93	35	0.91	1.6	1.6	1.2	0.72	5.4	49	0.97	6	
Orthophosphate (P)	mg/L	NV	NV	NV	<0.010	<0.010	<0.010	<0.010	<0.010	0.12	0.013	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.019	<0.010	<0.010	
pH	pH	NV	6.5 - 9.0	NV	7.42	7.55	<b>6.39</b>	6.55	<b>6.48</b>	7.84	8.18	<b>6.47</b>	7.9	8.02	6.81	7.74	6.73	7.96	6.82	7.9	
Total Phosphorus	mg/L	NV	NV	NV	0.021	0.032	<0.020	0.03	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	
Dissolved Phosphorus (P)	mg/L	NV	NV	NV	0.026	0.17	0.086	0.087	0.13	0.35	0.049	0.022	0.048	0.058	1.1	0.12	0.2	0.26	<0.020	0.048	
Reactive Silica (SiO <sub>2</sub> )	mg/L	NV	NV	NV	15	15	13	12	12	10	10	4.5	6.8	7.2	9.3	12	3.8	9	6.1	12	
Total Suspended Solids	mg/L	NV	NV	NV	32	18	260	150	84	390	70	940	76	100	14	12	660	370	190	24	
Dissolved Sulphate (SO <sub>4</sub> )	mg/L	NV	NV	NV	5.5	5.1	5.6	6.8	6.8	490	160	4.4	10	9.8	8.4	5.8	18	330	2.1	8.8	
Total Cyanide (CN)	mg/L	0.2	0.005	0.05	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Turbidity	NTU	NV	NV	NV	20	6	180	67	67	420	42	7.7	49	37	170	36	46	95	30	46	
WAD Cyanide (Free)	mg/L	NV	NV	NV	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
Conductivity	uS/cm	NV	NV	NV	180	140	77	79	78	1800	660	36	160	160	67	140	110	1100	42	140	

**Notes:**

a - General chemistry parameters are generally not considered potential COCs with the exception of chloride and sulphate.

b - Potable water criteria are the lowest of the Guidelines of Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and the NS Tier I Environmental Quality Standards (EQS) (potable, residential, coarse)

NV - No value

**Screening:**

Shaded Indicates values are greater than potable water criteria

**Bold** Indicates values are greater than CCME FWAL

Underlined Indicates values are greater than NS Tier II PSS

**References:**

Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ)

Nova Scotia Tier I Environmental Quality Standards (EQS) for groundwater, potable, residential, coarse

Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines for the Protection of Freshwater Aquatic Life (FWAL)

Nova Scotia Tier II Pathway Specific Standards (PSS) for Groundwater Discharging to Surface Water, >10 m from Surface Water Body

**Table 4.2 - Groundwater Results - Metals**  
**Goldboro Gold Project, Guysborough County, NS**

Parameters	Units	Criteria			MW1-A	MW1-B	MW5-A			MW5-B			MW6-A		
		Potable Water <sup>a</sup>	CCME; FWAL	NS Tier II PSS; GW > 10m from SW	MW1-A	MW1-B	MW5-A	MW5-A	MW5-A	MW5-B	MW5-B	MW5-B	MW6-A	MW6-A	MW6-A
Date					12/17/2021	12/17/2021	7/21/2021	10/26/2021	12/16/2021	7/21/2021	10/26/2021	12/16/2021	7/21/2021	10/27/2021	12/16/2021
Dissolved Aluminum (Al)	µg/L	NV	(see note) <sup>b</sup>	50	<b>180</b>	16	36	<b>89</b>	<b>160</b>	25	<b>130</b>	<b>100</b>	<b>44</b>	<b>1500</b>	<b>370</b>
Dissolved Antimony (Sb)	µg/L	6	NV	90	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Arsenic (As)	µg/L	10	5.0	50	<1.0	<1.0	3.7	3.1	3.1	<1.0	<1.0	<1.0	1.7	<b>5.3</b>	<1.0
Dissolved Barium (Ba)	µg/L	1000	NV	10000	12	6.7	22	30	19	16	16	15	17	29	9.8
Dissolved Beryllium (Be)	µg/L	4	NV	1.5	<0.10	<0.10	<1.0	<0.10	<0.10	<1.0	<0.10	<0.10	<1.0	0.13	<0.10
Dissolved Bismuth (Bi)	µg/L	NV	NV	NV	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Boron (B)	µg/L	5000	1,500	15000	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Dissolved Cadmium (Cd)	µg/L	5	(see note) <sup>c</sup>	0.9	0.026	<b>0.1</b>	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.039	<b>0.058</b>	0.031
Dissolved Calcium (Ca)	µg/L	NV	NV	NV	450	6500	11000	15000	14000	15000	15000	17000	1600	2000	1300
Dissolved Chromium (Cr)	µg/L	50	NV	89	<1.0	<1.0	<1.0	2.2	3.3	<1.0	<1.0	<1.0	<1.0	3.7	1.4
Dissolved Cobalt (Co)	µg/L	3.8	NV	40	3.6	<b>4.9</b>	1.5	1.3	0.92	0.52	3.00	3.3	<b>9.5</b>	<b>5.8</b>	2.2
Dissolved Copper (Cu)	µg/L	2000	(see note) <sup>d</sup>	20	<b>9.5</b>	<b>22</b>	1.2	<0.50	<b>0.73</b>	<0.50	<0.50	<b>2.2</b>	<b>5.0</b>	<b>29.0</b>	<b>26</b>
Dissolved Iron (Fe)	µg/L	NV	300	3000	400	54	<b>910</b>	<b>7000</b>	<b>7000</b>	<b>470</b>	<b>1400</b>	<b>670</b>	180	<b>2300</b>	95
Dissolved Lead (Pb)	µg/L	5	(see note) <sup>e</sup>	10	<0.50	<0.50	0.93	0.77	1	<0.50	<0.50	<0.50	0.56	<b>7.60</b>	1
Dissolved Magnesium (Mg)	µg/L	NV	NV	NV	430	1200	1200	1600	1500	1800	1800	1800	590	1200	660
Dissolved Manganese (Mn)	µg/L	120	(see note) <sup>f</sup>	4300	180	120	280	300	260	100	120	140	140	91	44
Dissolved Mercury (Hg)	µg/L	1	0.026	0.26	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013
Total Mercury (Hg)	µg/L	1	0.026	0.26	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013
Dissolved Molybdenum (Mo)	µg/L	70	73	730	<2.0	<2.0	26	10	8.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Nickel (Ni)	µg/L	100	(see note) <sup>g</sup>	250	3.2	3.3	5.3	5.4	4.3	<2.0	4.2	4.1	<b>32</b>	22	9.5
Dissolved Phosphorus (P)	µg/L	NV	NV	NV	<100	<100	<100	<100	<100	<100	<100	<100	<100	130	<100
Dissolved Potassium (K)	µg/L	NV	NV	NV	630	1500	3500	3700	3000	2400	2400	2200	1200	1400	340
Dissolved Selenium (Se)	µg/L	50	1.0	10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Silver (Ag)	µg/L	NV	0.25	2.5	0.21	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Sodium (Na)	µg/L	NV	NV	NV	4600	8000	9400	11000	8400	6700	6800	6700	4300	4700	5000
Dissolved Strontium (Sr)	µg/L	2400	NV	210000	8.4	30	39	56	49	55	53	53	9.4	11.0	6.6
Dissolved Thallium (Tl)	µg/L	2	0.8	8	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Tin (Sn)	µg/L	2400	NV	NV	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Titanium (Ti)	µg/L	NV	NV	NV	<2.0	<2.0	<2.0	3.7	5.1	<2.0	3.4	<2.0	<2.0	81	2.5
Dissolved Uranium (U)	µg/L	20	15	150	<0.10	<0.10	0.27	0.44	0.43	0.20	0.32	0.27	<0.10	<0.10	<0.10
Dissolved Vanadium (V)	µg/L	6.2	NV	1200	<2.0	<2.0	<2.0	<2.0	2.1	<2.0	<2.0	<2.0	<2.0	2.2	<2.0
Dissolved Zinc (Zn)	µg/L	NV	7	70	7.8	20	6.0	<b>9.6</b>	<5.0	<b>15</b>	<5.0	<b>11</b>	<b>42</b>	<b>49</b>	<b>15</b>

**Notes:**

NV - No value

a - Potable water criteria are the lowest of the Guidelines of Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and the NS Tier I Environmental Quality Standards (EQS) (potable, residential, coarse)

b - Aluminum guideline for FWAL = 5 µg/L for pH <6.5 and 100 µg/L for pH ≥6.5.

c - Cadmium guideline for FWAL is 0.04 ug/L at hardness <17 mg/L, otherwise calculated as  $10^{(0.83[\log(\text{hardness}))-2.46]}$

d - Copper guideline = When water hardness is 0 to <82 mg/L, the guideline is 2 µg/L; when hardness is > 82 to < 180 mg/L equation:  $e = 0.845[\ln(\text{hardness})] - 1.465 \times 0.2 \mu\text{g/L}$  is used to determine the copper guideline. At hardness >180 mg/L the guideline is 4 µg/L. Water hardness at all locations are <82 mg/L and as such, the guideline is 2 µg/L.

e - Lead guideline = When water hardness is 0 to <60 mg/L, the guideline is 1ug/L; when hardness is >60 to < 180 mg/L equation:  $e = 1.273[\ln(\text{hardness})] - 4.705 \mu\text{g/L}$  is used to determine the lead guideline. At hardness >180 mg/L the guideline is 7 ug/L.

f - Manganese guideline calculated using the Manganese - Canadian Water Quality Guideline and Benchmark Calculator provided in Appendix B of the Scientific Criteria Document for the Development of the Canadian Water Quality Guidelines for the Protection of Aquatic Life. Criteria for manganese was posted December 19, 2019. All results were compared to guidelines in effect at the time of sampling.

g - Nickel guideline = When water hardness is 0 to <60 mg/L, the guideline is 25 ug/L; when hardness is > 60 to < 180 mg/L equation:  $e = 0.76[\ln(\text{hardness})] + 1.06 \mu\text{g/L}$  is used to determine the nickel guideline. At hardness >180 mg/L the guideline is 150 ug/L.

**Screening:**

Shaded Indicates values are greater than potable water criteria

**Bold** Indicates values are greater than CCME FWAL

Underlined Indicates values are greater than NS Tier II PSS

**References:**

Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ)

Nova Scotia Tier I Environmental Quality Standards (EQS) for groundwater, potable, residential, coarse

Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines for the Protection of Freshwater Aquatic Life (FWAL)

Nova Scotia Tier II Pathway Specific Standards (PSS) for Groundwater Discharging to Surface Water, >10 m from Surface Water Body

**Table 4.2 - Groundwater Results - Metals**  
**Goldboro Gold Project, Guysborough County, NS**

Parameters	Units	Criteria			MW6-B			MW7-A				MW7-B			MW15-A		
		Potable Water <sup>a</sup>	CCME; FWAL	NS Tier II PSS; GW > 10m from SW	MW6-B	MW6-B	MW6-B	MW7-A	MW7-A	MWB	MW7-A	MW7-B	MW7-B	MW7-B	MW15-A	MW15-A	MW15-A
Date					7/21/2021	10/27/2021	12/16/2021	7/21/2021	10/27/2021	10/27/2021	12/16/2021	7/21/2021	10/27/2021	12/16/2021	7/21/2021	10/27/2021	12/16/2021
Dissolved Aluminum (Al)	µg/L	NV	(see note) <sup>b</sup>	50	<b>170</b>	<b>140</b>	<b>160</b>	<b>47</b>	<b>100</b>	<b>99</b>	<b>140</b>	40	45	9.5	<b>220</b>	<b>90</b>	<b>79</b>
Dissolved Antimony (Sb)	µg/L	6	NV	90	8.3	3.2	3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Arsenic (As)	µg/L	10	5.0	50	<b>75</b>	<b>39</b>	<b>32</b>	<1.0	<1.0	<1.0	<1.0	<b>43</b>	<b>43</b>	<b>47</b>	<b>39</b>	<b>15</b>	<b>17</b>
Dissolved Barium (Ba)	µg/L	1000	NV	10000	3.9	2.9	3.7	16	13	13	12	21	21	12	11	24	28
Dissolved Beryllium (Be)	µg/L	4	NV	1.5	<1.0	<0.10	<0.10	<1.0	<0.10	<0.10	<0.10	<1.0	<0.10	<0.10	<1.0	<0.10	<0.10
Dissolved Bismuth (Bi)	µg/L	NV	NV	NV	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Boron (B)	µg/L	5000	1,500	15000	120	140	140	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Dissolved Cadmium (Cd)	µg/L	5	(see note) <sup>c</sup>	0.9	<0.010	<0.010	<0.010	0.024	0.018	0.023	0.02	<0.010	0.012	<0.010	<0.010	<0.010	<0.010
Dissolved Calcium (Ca)	µg/L	NV	NV	NV	4300	4000	3600	1000	620	670	640	32000	38000	37000	7600	12000	14000
Dissolved Chromium (Cr)	µg/L	50	NV	89	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.5	1.8	2.5
Dissolved Cobalt (Co)	µg/L	3.8	NV	40	<0.40	<0.40	<0.40	<b>16</b>	<b>9.9</b>	<b>10</b>	<b>8.6</b>	<0.40	<0.40	<0.40	1.4	2.6	1.5
Dissolved Copper (Cu)	µg/L	2000	(see note) <sup>d</sup>	20	1.5	0.5	1.4	<b>53</b>	<b>26</b>	<b>28</b>	<b>43</b>	<0.50	0.64	<0.50	1.2	<0.50	<0.50
Dissolved Iron (Fe)	µg/L	NV	300	3000	99	53	85	160	190	190	61	<50	<50	<50	<b>13000</b>	<b>27000</b>	<b>49000</b>
Dissolved Lead (Pb)	µg/L	5	(see note) <sup>e</sup>	10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Magnesium (Mg)	µg/L	NV	NV	NV	600	510	490	510	430	430	440	4100	5500	5700	1900	2900	3100
Dissolved Manganese (Mn)	µg/L	120	(see note) <sup>f</sup>	4300	13	8	9.2	<b>310</b>	<b>140</b>	<b>130</b>	<b>75</b>	<b>330</b>	<b>460</b>	<b>250</b>	<b>520</b>	<b>1100</b>	<b>1300</b>
Dissolved Mercury (Hg)	µg/L	1	0.026	0.26	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	0.013	<0.013	<0.013	0.013	<0.013	<0.013	0.013
Total Mercury (Hg)	µg/L	1	0.026	0.26	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013
Dissolved Molybdenum (Mo)	µg/L	70	73	730	4.0	2.5	2.5	<2.0	<2.0	<2.0	<2.0	4.7	2.7	<2.0	11	7	6.1
Dissolved Nickel (Ni)	µg/L	100	(see note) <sup>g</sup>	250	2.2	<2.0	<2.0	7.0	5	5.5	5.7	3.4	2.8	<2.0	4.9	7.8	3.4
Dissolved Phosphorus (P)	µg/L	NV	NV	NV	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Dissolved Potassium (K)	µg/L	NV	NV	NV	3200	2900	2700	1200	1100	1000	710	2500	2300	1800	3600	4500	4200
Dissolved Selenium (Se)	µg/L	50	1.0	10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Silver (Ag)	µg/L	NV	0.25	2.5	<0.10	<0.10	<0.10	<0.10	0.11	0.13	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Sodium (Na)	µg/L	NV	NV	NV	52000	54000	54000	6300	6400	6200	5700	74000	27000	9900	14000	22000	25000
Dissolved Strontium (Sr)	µg/L	2400	NV	210000	61	60	53	8.2	8.5	7.9	7.1	690	880	850	31	52	56
Dissolved Thallium (Tl)	µg/L	2	0.8	8	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Tin (Sn)	µg/L	2400	NV	NV	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Titanium (Ti)	µg/L	NV	NV	NV	5.9	3.6	4.1	<2.0	<2.0	<2.0	<2.0	<2.0	2.7	<2.0	8.4	3.0	2.4
Dissolved Uranium (U)	µg/L	20	15	150	1.4	1.2	1.3	<0.10	<0.10	<0.10	<0.10	9.4	4.0	2.1	0.17	0.12	0.13
Dissolved Vanadium (V)	µg/L	6.2	NV	1200	4.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.4
Dissolved Zinc (Zn)	µg/L	NV	7	70	<5.0	<5.0	<5.0	<b>61</b>	<b>47</b>	<b>47</b>	<b>55</b>	<5.0	<b>8.5</b>	<5.0	7.0	<b>14.0</b>	<5.0

**Notes:**

NV - No value

a - Potable water criteria are the lowest of the Guidelines of Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and the NS Tier I Environmental Quality Standards (EQS) (potable, residential, coarse)

b - Aluminum guideline for FWAL = 5 µg/L for pH <6.5 and 100 µg/L for pH ≥6.5.

c - Cadmium guideline for FWAL is 0.04 ug/L at hardness <17 mg/L, otherwise calculated as 10<sup>0.83</sup>[log(hardness)]-2.46)

d - Copper guideline = When water hardness is 0 to <82 mg/L, the guideline is 2 µg/L; when hardness is > 82 to < 180 mg/L equation: e 0.845[ln(hardness)] -1.465 X 0.2 µg/L is used to determine the copper guideline. At hardness >180 mg/L the guideline is 4 µg/L. Water hardness at all locations are <82 mg/L and as such, the guideline is 2 µg/L.

e - Lead guideline = When water hardness is 0 to <60 mg/L, the guideline is 1ug/L; when hardness is >60 to < 180 mg/L equation: e 1.273[ln(hardness)] -4.705 ug/L is used to determine the lead guideline. At hardness >180 mg/L the guideline is 7 ug/L.

f - Manganese guideline calculated using the Manganese - Canadian Water Quality Guideline and Benchmark Calculator provided in Appendix B of the Scientific Criteria Document for the Development of the Canadian Water Quality Guidelines for the Protection of Aquatic Life. Criteria for manganese was posted December 19, 2019. All results were compared to guidelines in effect at the time of sampling.

g - Nickel guideline = When water hardness is 0 to <60 mg/L, the guideline is 25 ug/L; when hardness is > 60 to < 180 mg/L equation: e 0.76[ln(hardness)] + 1.06 ug/L is used to determine the nickel guideline. At hardness >180 mg/L the guideline is 150 ug/L.

**Screening:**

Shaded Indicates values are greater than potable water criteria

**Bold** Indicates values are greater than CCME FWAL

Underlined Indicates values are greater than NS Tier II PSS

**References:**

Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ)

Nova Scotia Tier I Environmental Quality Standards (EQS) for groundwater, potable, residential, coarse

Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines for the Protection of Freshwater Aquatic Life (FWAL)

Nova Scotia Tier II Pathway Specific Standards (PSS) for Groundwater Discharging to Surface Water, >10 m from Surface Water Body

**Table 4.2 - Groundwater Results - Metals**  
**Goldboro Gold Project, Guysborough County, NS**

Parameters	Units	Criteria			MW15-B			MW16-A	MW16-B	MW20-A			MW20-B				MW21-A	MW21-B
		Potable Water <sup>a</sup>	CCME; FWAL	NS Tier II PSS; GW > 10m from SW	MW15-B	MW15-B	MW15-B	MW16-A	MW16-B	MW20-A	MW20-A	MW20-A	MW20-B	MW DUP	MW20-B	MW20-B	MW21-A	MW21-B
Date					7/21/2021	10/27/2021	12/16/2021	12/16/2021	12/16/2021	7/21/2021	10/27/2021	12/16/2021	7/21/2021	7/21/2021	10/27/2021	12/16/2021	12/16/2021	12/16/2021
Dissolved Aluminum (Al)	µg/L	NV	(see note) <sup>b</sup>	50	<u>52</u>	28	<u>120</u>	21	7.5	<u>17</u>	19	8.5	<u>56</u>	<u>72</u>	9	6.8	15	7.8
Dissolved Antimony (Sb)	µg/L	6	NV	90	<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
Dissolved Arsenic (As)	µg/L	10	5.0	50	<b>360</b>	<b>500</b>	<b>600</b>	<b>54</b>	<b>8.2</b>	5.0	<b>13.0</b>	<b>6.4</b>	<b>77</b>	<b>76</b>	<b>66</b>	<b>55</b>	<1.0	4.5
Dissolved Barium (Ba)	µg/L	1000	NV	10000	12	17	16	12	5	14	16	24	11	11	13	8.8	9.9	6.2
Dissolved Beryllium (Be)	µg/L	4	NV	1.5	<1.0	<0.10	<0.10	<0.10	<0.10	<1.0	<0.10	<0.10	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10
Dissolved Bismuth (Bi)	µg/L	NV	NV	NV	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Boron (B)	µg/L	5000	1,500	15000	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Dissolved Cadmium (Cd)	µg/L	5	(see note) <sup>c</sup>	0.9	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.016	<0.010	<0.010	<0.010	<0.010	<0.010	0.068	<0.010
Dissolved Calcium (Ca)	µg/L	NV	NV	NV	31000	42000	41000	20000	29000	4100	2900	4500	28000	27000	32000	30000	13000	27000
Dissolved Chromium (Cr)	µg/L	50	NV	89	<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
Dissolved Cobalt (Co)	µg/L	3.8	NV	40	<0.40	<0.40	<0.40	0.58	<0.40	0.48	<b>4.30</b>	2.8	<0.40	<0.40	0.4	<0.40	<b>12</b>	0.63
Dissolved Copper (Cu)	µg/L	2000	(see note) <sup>d</sup>	20	<0.50	<0.50	0.59	<b>2.6</b>	<0.50	<0.50	1	<0.50	<0.50	0.51	<0.50	<0.50	1.7	<b>5.1</b>
Dissolved Iron (Fe)	µg/L	NV	300	3000	<50	<50	160	<50	<50	<b>18000</b>	<b>12000</b>	<b>24000</b>	<b>410</b>	<b>450</b>	<50	<50	140	<50
Dissolved Lead (Pb)	µg/L	5	(see note) <sup>e</sup>	10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Magnesium (Mg)	µg/L	NV	NV	NV	4100	5400	5600	2200	4100	1200	930	1200	4400	4400	5000	5200	1500	4100
Dissolved Manganese (Mn)	µg/L	120	(see note) <sup>f</sup>	4300	320	<b>550</b>	<b>530</b>	<b>520</b>	<b>630</b>	<b>380</b>	<b>250</b>	<b>400</b>	140	140	140	140	<b>770</b>	43
Dissolved Mercury (Hg)	µg/L	1	0.026	0.26	<0.013	<0.013	0.015	<0.013	<0.013	<0.013	<0.013	0.017	<0.013	<0.013	<0.013	<0.013	0.015	0.013
Total Mercury (Hg)	µg/L	1	0.026	0.26	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013
Dissolved Molybdenum (Mo)	µg/L	70	73	730	8.8	5.1	2.5	9.3	<2.0	<2.0	14	4.5	3.8	3.9	<2.0	<2.0	<2.0	5.6
Dissolved Nickel (Ni)	µg/L	100	(see note) <sup>g</sup>	250	2.9	5.3	3.2	7.1	<2.0	<2.0	24	20	<2.0	<2.0	<2.0	<2.0	3	<2.0
Dissolved Phosphorus (P)	µg/L	NV	NV	NV	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Dissolved Potassium (K)	µg/L	NV	NV	NV	5600	4400	3800	3100	2300	1500	1500	1900	2900	2900	2100	2100	1900	3700
Dissolved Selenium (Se)	µg/L	50	1.0	10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Silver (Ag)	µg/L	NV	0.25	2.5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Sodium (Na)	µg/L	NV	NV	NV	28000	29000	23000	20000	11000	10000	10000	11000	13000	13000	12000	12000	11000	9300
Dissolved Strontium (Sr)	µg/L	2400	NV	210000	400	640	660	120	270	34	28	41	340	330	410	390	67	120
Dissolved Thallium (Tl)	µg/L	2	0.8	8	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Tin (Sn)	µg/L	2400	NV	NV	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Titanium (Ti)	µg/L	NV	NV	NV	2.5	<2.0	6.9	<2.0	<2.0	<2.0	<2.0	<2.0	2.1	3.1	<2.0	<2.0	<2.0	<2.0
Dissolved Uranium (U)	µg/L	20	15	150	1.6	3.7	2.7	1	0.59	<0.10	<0.10	<0.10	1.4	1.4	1.8	1.5	0.21	4.1
Dissolved Vanadium (V)	µg/L	6.2	NV	1200	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Zinc (Zn)	µg/L	NV	7	70	<5.0	<b>12</b>	5.1	<5.0	<5.0	<5.0	<b>20</b>	<b>9.7</b>	6.7	<b>7.7</b>	6.7	<5.0	<5.0	<5.0

**Notes:**

NV - No value

a - Potable water criteria are the lowest of the Guidelines of Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and the NS Tier I Environmental Quality Standards (EQS) (potable, residential, coarse)

b - Aluminum guideline for FWAL = 5 µg/L for pH <6.5 and 100 µg/L for pH ≥6.5.

c - Cadmium guideline for FWAL is 0.04 ug/L at hardness <17 mg/L, otherwise calculated as 10<sup>0.83</sup>[log(hardness)]-2.46)

d - Copper guideline = When water hardness is 0 to <82 mg/L, the guideline is 2 µg/L; when hardness is > 82 to < 180 mg/L equation: e 0.845[ln(hardness)] -1.465 X 0.2 µg/L is used to determine the copper guideline. At hardness >180 mg/L the guideline is 4 µg/L. Water hardness at all locations are <82 mg/L and as such, the guideline is 2 µg/L.

e - Lead guideline = When water hardness is 0 to <60 mg/L, the guideline is 1ug/L; when hardness is >60 to < 180 mg/L equation: e 1.273[ln(hardness)] -4.705 ug/L is used to determine the lead guideline. At hardness >180 mg/L the guideline is 7 ug/L.

f - Manganese guideline calculated using the Manganese - Canadian Water Quality Guideline and Benchmark Calculator provided in Appendix B of the Scientific Criteria Document for the Development of the Canadian Water Quality Guidelines for the Protection of Aquatic Life. Criteria for manganese was posted December 19, 2019. All results were compared to guidelines in effect at the time of sampling.

g - Nickel guideline = When water hardness is 0 to <60 mg/L, the guideline is 25 ug/L; when hardness is > 60 to < 180 mg/L equation: e 0.76[ln(hardness)] + 1.06 ug/L is used to determine the nickel guideline. At hardness >180 mg/L the guideline is 150 ug/L.

**Screening:**

Shaded Indicates values are greater than potable water criteria

**Bold** Indicates values are greater than CCME FWAL

Underlined Indicates values are greater than NS Tier II PSS

**References:**

Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ)

Nova Scotia Tier I Environmental Quality Standards (EQS) for groundwater, potable, residential, coarse

Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines for the Protection of Freshwater Aquatic Life (FWAL)

Nova Scotia Tier II Pathway Specific Standards (PSS) for Groundwater Discharging to Surface Water, >10 m from Surface Water Body

**Table 4.2 - Groundwater Results - Metals**  
**Goldboro Gold Project, Guysborough County, NS**

Parameters	Units	Criteria			MW23-A	MW23-B	MW26-A		MW26-B				MW29-A	MW29-B	MW30-A		MW30-B	
		Potable Water <sup>a</sup>	CCME; FWAL	NS Tier II PSS; GW > 10m from SW	MW23-A	MW23-B	MW26-A	MW26-A	MW26-B	MWA	MW26-B	DUP-C	MW29-A	MW29-B	MW30-A	MW30-A	MW30-B	MW30-B
Date					12/16/2021	12/16/2021	10/27/2021	12/15/2021	10/27/2021	10/27/2021	12/15/2021	12/15/2021	12/17/2021	12/17/2021	10/27/2021	12/16/2021	10/27/2021	12/16/2021
Dissolved Aluminum (Al)	µg/L	NV	(see note) <sup>b</sup>	50	<b>250</b>	<b>190</b>	28	21	<b>230</b>	<b>140</b>	<b>55</b>	<b>60</b>	<b>9.8</b>	<b>32</b>	<b>59</b>	<b>190</b>	<b>110</b>	<5.0
Dissolved Antimony (Sb)	µg/L	6	NV	90	<1.0	1.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Arsenic (As)	µg/L	10	5.0	50	1.6	<b>20</b>	<b>12</b>	<1.0	<b>180</b>	<b>180</b>	<b>180</b>	<b>180</b>	<1.0	<1.0	<1.0	<1.0	<b>10</b>	<b>8.2</b>
Dissolved Barium (Ba)	µg/L	1000	NV	10000	12	6.5	10	9.1	4.8	3.4	3.5	3.7	3.5	3	8	9.6	15	8.8
Dissolved Beryllium (Be)	µg/L	4	NV	1.5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Bismuth (Bi)	µg/L	NV	NV	NV	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Boron (B)	µg/L	5000	1,500	15000	<50	<50	<50	<50	230	230	230	240	<50	<50	<50	<50	<50	<50
Dissolved Cadmium (Cd)	µg/L	5	(see note) <sup>c</sup>	0.9	0.033	0.012	<b>0.11</b>	<b>0.052</b>	<0.010	<0.010	<0.010	<0.010	<0.010	0.011	0.018	0.014	<0.010	0.035
Dissolved Calcium (Ca)	µg/L	NV	NV	NV	880	12000	7200	3300	8800	9100	12000	12000	2000	1200	870	410	20000	32000
Dissolved Chromium (Cr)	µg/L	50	NV	89	4.1	<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
Dissolved Cobalt (Co)	µg/L	3.8	NV	40	2.3	0.63	<b>9.5</b>	1.4	<0.40	<0.40	<0.40	<0.40	<b>57</b>	1	<b>8.1</b>	2.6	<0.40	0.55
Dissolved Copper (Cu)	µg/L	2000	(see note) <sup>d</sup>	20	<b>7.9</b>	<b>15</b>	<b>2.1</b>	<b>3</b>	<b>13</b>	0.65	<0.50	<0.50	<b>2.4</b>	1.1	<b>4.9</b>	<b>14</b>	1.4	<0.50
Dissolved Iron (Fe)	µg/L	NV	300	3000	<b>2400</b>	<b>1500</b>	<50	<50	230	96	<50	<50	<b>1300</b>	120	<b>2900</b>	<b>840</b>	<50	<50
Dissolved Lead (Pb)	µg/L	5	(see note) <sup>e</sup>	10	<0.50	<b>2.6</b>	<0.50	<0.50	<b>1.1</b>	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Magnesium (Mg)	µg/L	NV	NV	NV	610	1200	1500	910	1200	1200	1400	1500	560	250	440	370	1900	3300
Dissolved Manganese (Mn)	µg/L	120	(see note) <sup>f</sup>	4300	<b>250</b>	<b>65</b>	<b>940</b>	120	71	69	91	92	<b>1000</b>	<b>140</b>	<b>230</b>	74	<b>180</b>	<b>160</b>
Dissolved Mercury (Hg)	µg/L	1	0.026	0.26	<0.013	<0.013	<0.013	<0.01	<0.013	<0.013	<0.01	<0.01	<0.013	0.023	<0.013	<0.013	<0.013	<0.013
Total Mercury (Hg)	µg/L	1	0.026	0.26	<0.013	0.015	<0.013	<0.01	<0.013	<0.013	<0.01	<0.01	<0.013	0.023	<0.013	<0.013	<0.013	<0.013
Dissolved Molybdenum (Mo)	µg/L	70	73	730	<2.0	9.3	<2.0	<2.0	17	17	7.7	8.1	4.5	<2.0	<2.0	<2.0	3.9	<2.0
Dissolved Nickel (Ni)	µg/L	100	(see note) <sup>g</sup>	250	11	4.3	15	4.9	<2.0	<2.0	<2.0	<2.0	20	8.8	10	8.2	3.2	4.8
Dissolved Phosphorus (P)	µg/L	NV	NV	NV	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Dissolved Potassium (K)	µg/L	NV	NV	NV	850	2300	2100	980	4400	4300	3700	3700	710	1000	860	620	4500	2600
Dissolved Selenium (Se)	µg/L	50	1.0	10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Silver (Ag)	µg/L	NV	0.25	2.5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Sodium (Na)	µg/L	NV	NV	NV	4600	9400	6700	6000	37000	38000	46000	46000	4200	21000	4900	4900	41000	8400
Dissolved Strontium (Sr)	µg/L	2400	NV	210000	8.5	68	39	26	98	100	140	140	5.7	9.8	8.6	6	150	150
Dissolved Thallium (Tl)	µg/L	2	0.8	8	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Tin (Sn)	µg/L	2400	NV	NV	<2.0	6.4	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Titanium (Ti)	µg/L	NV	NV	NV	12	4.9	2.5	<2.0	11	5.3	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.6	<2.0
Dissolved Uranium (U)	µg/L	20	15	150	<0.10	0.57	<0.10	<0.10	1.7	1.8	1.9	2	<0.10	0.25	<0.10	<0.10	3.4	0.91
Dissolved Vanadium (V)	µg/L	6.2	NV	1200	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Zinc (Zn)	µg/L	NV	7	70	<b>19</b>	<b>17</b>	<b>17</b>	6.2	6.4	<5.0	<5.0	<5.0	<b>14</b>	6.6	<b>10</b>	<b>12</b>	<5.0	<5.0

**Notes:**

NV - No value

a - Potable water criteria are the lowest of the Guidelines of Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and the NS Tier I Environmental Quality Standards (EQS) (potable, residential, coarse)

b - Aluminum guideline for FWAL = 5 µg/L for pH <6.5 and 100 µg/L for pH ≥6.5.

c - Cadmium guideline for FWAL is 0.04 ug/L at hardness <17 mg/L, otherwise calculated as 10<sup>0.83</sup>[log(hardness)]-2.46)

d - Copper guideline = When water hardness is 0 to <82 mg/L, the guideline is 2 µg/L; when hardness is > 82 to < 180 mg/L equation: e 0.845[ln(hardness)] -1.465 X 0.2 µg/L is used to determine the copper guideline. At hardness >180 mg/L the guideline is 4 µg/L. Water hardness at all locations are <82 mg/L and as such, the guideline is 2 µg/L.

e - Lead guideline = When water hardness is 0 to <60 mg/L, the guideline is 1ug/L; when hardness is >60 to < 180 mg/L equation: e 1.273[ln(hardness)] -4.705 ug/L is used to determine the lead guideline. At hardness >180 mg/L the guideline is 7 ug/L.

f - Manganese guideline calculated using the Manganese - Canadian Water Quality Guideline and Benchmark Calculator provided in Appendix B of the Scientific Criteria Document for the Development of the Canadian Water Quality Guidelines for the Protection of Aquatic Life. Criteria for manganese was posted December 19, 2019. All results were compared to guidelines in effect at the time of sampling.

g - Nickel guideline = When water hardness is 0 to <60 mg/L, the guideline is 25 ug/L; when hardness is > 60 to < 180 mg/L equation: e 0.76[ln(hardness)] + 1.06 ug/L is used to determine the nickel guideline. At hardness >180 mg/L the guideline is 150 ug/L.

**Screening:**

Shaded Indicates values are greater than potable water criteria

**Bold** Indicates values are greater than CCME FWAL

Underlined Indicates values are greater than NS Tier II PSS

**References:**

Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ)

Nova Scotia Tier I Environmental Quality Standards (EQS) for groundwater, potable, residential, coarse

Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines for the Protection of Freshwater Aquatic Life (FWAL)

Nova Scotia Tier II Pathway Specific Standards (PSS) for Groundwater Discharging to Surface Water, >10 m from Surface Water Body

**Table 4.2 - Groundwater Results - Metals**  
**Goldboro Gold Project, Guysborough County, NS**

Parameters	Units	Criteria			MW42-A		MW42-B		MW43-A			MW43-B		MW46-A		MW46-B		MW51-A	
		Potable Water <sup>a</sup>	CCME; FWAL	NS Tier II PSS; GW > 10m from SW	MW42-A	MW42-A	MW42-B	MW42-B	MW43-A	MW43-A	DUP-A	MW43-B	MW43-B	MW46-A	MW46-A	DUP-D	MW46-B	MW46-B	MW51-A
Date					10/27/2021	12/16/2021	10/27/2021	12/16/2021	10/27/2021	12/16/2021	12/16/2021	10/27/2021	12/16/2021	10/27/2021	12/16/2021	12/16/2021	10/27/2021	12/15/2021	12/17/2021
Dissolved Aluminum (Al)	µg/L	NV	(see note) <sup>b</sup>	50	<u>55</u>	<5.0	<u>67</u>	38	<u>54</u>	32	31.9	9.9	13	<b>30</b>	20	<b>23</b>	<u>290</u>	<u>96</u>	<b>29</b>
Dissolved Antimony (Sb)	µg/L	6	NV	90	<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
Dissolved Arsenic (As)	µg/L	10	5.0	50	<1.0	<1.0	<b>15</b>	<b>12</b>	<1.0	<1.0	<1.0	<1.0	<1.0	3.4	3.6	3.7	<b>16</b>	<b>15</b>	<1.0
Dissolved Barium (Ba)	µg/L	1000	NV	10000	10	17	6.4	8	14	13.1	12.7	7.0	5.4	7.6	9	8.9	20	16	15
Dissolved Beryllium (Be)	µg/L	4	NV	1.5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Bismuth (Bi)	µg/L	NV	NV	NV	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Boron (B)	µg/L	5000	1,500	15000	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	69	<50	<50
Dissolved Cadmium (Cd)	µg/L	5	(see note) <sup>c</sup>	0.9	0.033	<0.010	<0.010	<0.010	0.029	0.069	0.067	0.017	0.016	0.032	0.015	0.016	0.01	<0.010	0.025
Dissolved Calcium (Ca)	µg/L	NV	NV	NV	3900	2700	20000	22000	16000	13700	13100	20000	16000	4800	6000	5900	31000	31000	1100
Dissolved Chromium (Cr)	µg/L	50	NV	89	<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
Dissolved Cobalt (Co)	µg/L	3.8	NV	40	<b>14</b>	<b>12</b>	<0.40	<0.40	<b>4.5</b>	<b>11.8</b>	<b>11.7</b>	0.78	0.43	1.8	2.5	2.4	0.61	0.47	<b>64</b>
Dissolved Copper (Cu)	µg/L	2000	(see note) <sup>d</sup>	20	<b>25</b>	0.95	1.5	0.63	0.65	<b>4.17</b>	<b>4.26</b>	1.1	1.6	<b>1.5</b>	<b>2.5</b>	<b>3.1</b>	<b>7.6</b>	1.3	<b>180</b>
Dissolved Iron (Fe)	µg/L	NV	300	3000	<b>1700</b>	<b>13000</b>	<50	<50	160	<b>606</b>	<b>590</b>	<50	<50	620	<50	<50	<b>370</b>	120	<b>640</b>
Dissolved Lead (Pb)	µg/L	5	(see note) <sup>e</sup>	10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Magnesium (Mg)	µg/L	NV	NV	NV	1000	760	2700	3000	1600	2220	2170	2900	2600	1100	1000	1100	4100	4800	540
Dissolved Manganese (Mn)	µg/L	120	(see note) <sup>f</sup>	4300	<b>1200</b>	<b>1400</b>	47	69	<b>400</b>	<b>2250</b>	<b>2190</b>	130	99	68	74	70	<b>180</b>	250	<b>330</b>
Dissolved Mercury (Hg)	µg/L	1	0.026	0.26	<0.013	0.013	<0.013	0.013	<0.013	<0.013	<0.013	<0.013	0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013
Total Mercury (Hg)	µg/L	1	0.026	0.26	<0.013	<0.013	<0.013	<0.013	<b>0.033</b>	<b>0.035</b>	0.020	<0.013	<0.013	0.033	<0.013	<0.013	<0.013	--	<0.013
Dissolved Molybdenum (Mo)	µg/L	70	73	730	15	4	5	5	4.8	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	38	21	<2.0
Dissolved Nickel (Ni)	µg/L	100	(see note) <sup>g</sup>	250	<b>42</b>	<b>36</b>	<2.0	<2.0	6.2	7.7	7.6	3.3	2.4	15	23	23	3.9	4.9	22
Dissolved Phosphorus (P)	µg/L	NV	NV	NV	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Dissolved Potassium (K)	µg/L	NV	NV	NV	2100	2000	6800	7100	9000	3030	2870	4300	2500	1500	1500	1400	5800	4900	900
Dissolved Selenium (Se)	µg/L	50	1.0	10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<b>1.1</b>	<0.50	<0.50
Dissolved Silver (Ag)	µg/L	NV	0.25	2.5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<b>0.62</b>
Dissolved Sodium (Na)	µg/L	NV	NV	NV	15000	8300	25000	27000	32000	6780	6590	10000	8600	8400	7600	7300	350000	140000	3900
Dissolved Strontium (Sr)	µg/L	2400	NV	210000	37	25	290	310	140	98.9	96.7	81	71	26	32	31	360	300	13
Dissolved Thallium (Tl)	µg/L	2	0.8	8	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Tin (Sn)	µg/L	2400	NV	NV	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Titanium (Ti)	µg/L	NV	NV	NV	3.2	<2.0	<2.0	<2.0	2	<2.0	<2.0	<2.0	<2.0	3.9	<2.0	<2.0	20	7.8	<2.0
Dissolved Uranium (U)	µg/L	20	15	150	0.11	<0.10	1.7	1.4	0.63	0.18	0.14	0.52	0.26	<0.10	<0.10	<0.10	<b>33</b>	<b>25</b>	<0.10
Dissolved Vanadium (V)	µg/L	6.2	NV	1200	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Zinc (Zn)	µg/L	NV	7	70	<b>75</b>	<b>46</b>	<5.0	<5.0	<5.0	<b>16.6</b>	<b>27.8</b>	11	<b>7.8</b>	<b>9.2</b>	5.8	6.4	<5.0	<5.0	<b>56</b>

**Notes:**

NV - No value

a - Potable water criteria are the lowest of the Guidelines of Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and the NS Tier I Environmental Quality Standards (EQS) (potable, residential, coarse)

b - Aluminum guideline for FWAL = 5 µg/L for pH <6.5 and 100 µg/L for pH ≥6.5.

c - Cadmium guideline for FWAL is 0.04 µg/L at hardness <17 mg/L, otherwise calculated as 10<sup>0.83</sup>[log(hardness)]-2.46)

d - Copper guideline = When water hardness is 0 to <82 mg/L, the guideline is 2 µg/L; when hardness is > 82 to < 180 mg/L equation: e 0.845[ln(hardness)] -1.465 X 0.2 µg/L is used to determine the copper guideline. At hardness >180 mg/L the guideline is 4 µg/L. Water hardness at all locations are <82 mg/L and as such, the guideline is 2 µg/L.

e - Lead guideline = When water hardness is 0 to <60 mg/L, the guideline is 1 µg/L; when hardness is >60 to < 180 mg/L equation: e 1.273[ln(hardness)] -4.705 µg/L is used to determine the lead guideline. At hardness >180 mg/L the guideline is 7 µg/L.

f - Manganese guideline calculated using the Manganese - Canadian Water Quality Guideline and Benchmark Calculator provided in Appendix B of the Scientific Criteria Document for the Development of the Canadian Water Quality Guidelines for the Protection of Aquatic Life. Criteria for manganese was posted December 19, 2019. All results were compared to guidelines in effect at the time of sampling.

g - Nickel guideline = When water hardness is 0 to <60 mg/L, the guideline is 25 µg/L; when hardness is > 60 to < 180 mg/L equation: e 0.76[ln(hardness)] + 1.06 µg/L is used to determine the nickel guideline. At hardness >180 mg/L the guideline is 150 µg/L.

**Screening:**

Shaded Indicates values are greater than potable water criteria

**Bold** Indicates values are greater than CCME FWAL

Underlined Indicates values are greater than NS Tier II PSS

**References:**

Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ)

Nova Scotia Tier I Environmental Quality Standards (EQS) for groundwater, potable, residential, coarse

Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines for the Protection of Freshwater Aquatic Life (FWAL)

Nova Scotia Tier II Pathway Specific Standards (PSS) for Groundwater Discharging to Surface Water, >10 m from Surface Water Body

**Table 4.2 - Groundwater Results - Metals**  
**Goldboro Gold Project, Guysborough County, NS**

Parameters	Units	Criteria			MW51-B	MW54-A	MW54-B	MW55-A	MW55-B	MW56-A	MW56-B	
		Potable Water <sup>a</sup>	CCME; FWAL	NS Tier II PSS; GW > 10m from SW	MW51-B	DUP-B	MW54-A	MW54-B	MW55-A	MW55-B	MW56-A	MW56-B
Date					12/17/2021	12/17/2021	12/17/2021	12/17/2021	12/17/2021	12/17/2021	12/17/2021	
Dissolved Aluminum (Al)	µg/L	NV	(see note) <sup>b</sup>	50	11	12	<5.0	21	21	69	32	50
Dissolved Antimony (Sb)	µg/L	6	NV	90	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Arsenic (As)	µg/L	10	5.0	50	<1.0	<1.0	<1.0	1.1	<1.0	1.7	<1.0	3.9
Dissolved Barium (Ba)	µg/L	1000	NV	10000	8	8	13	6.3	18	28	11	7.8
Dissolved Beryllium (Be)	µg/L	4	NV	1.5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Bismuth (Bi)	µg/L	NV	NV	NV	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Boron (B)	µg/L	5000	1,500	15000	<50	<50	<50	<50	<50	<50	<50	<50
Dissolved Cadmium (Cd)	µg/L	5	(see note) <sup>c</sup>	0.9	0.018	0.015	<b>0.06</b>	<0.010	0.038	0.027	0.036	<0.010
Dissolved Calcium (Ca)	µg/L	NV	NV	NV	23000	23000	3200	20000	1900	31000	2700	15000
Dissolved Chromium (Cr)	µg/L	50	NV	89	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Cobalt (Co)	µg/L	3.8	NV	40	1.7	1.6	<b>6.4</b>	<0.40	<b>13</b>	1.2	<b>7.8</b>	0.52
Dissolved Copper (Cu)	µg/L	2000	(see note) <sup>d</sup>	20	0.77	0.79	<b>6.8</b>	<0.50	<b>14</b>	<b>9.9</b>	<b>4.6</b>	<b>6.7</b>
Dissolved Iron (Fe)	µg/L	NV	300	3000	<50	<50	130	<50	<b>2000</b>	73	93	140
Dissolved Lead (Pb)	µg/L	5	(see note) <sup>e</sup>	10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Magnesium (Mg)	µg/L	NV	NV	NV	1700	1700	930	2200	680	3200	610	2200
Dissolved Manganese (Mn)	µg/L	120	(see note) <sup>f</sup>	4300	240	240	<b>550</b>	36	<b>2000</b>	<b>2400</b>	<b>550</b>	<b>350</b>
Dissolved Mercury (Hg)	µg/L	1	0.026	0.26	0.015	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013
Total Mercury (Hg)	µg/L	1	0.026	0.26	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013
Dissolved Molybdenum (Mo)	µg/L	70	73	730	3.2	3.1	2.3	<2.0	2.9	33	<2.0	2.4
Dissolved Nickel (Ni)	µg/L	100	(see note) <sup>g</sup>	250	<2.0	<2.0	22	<2.0	19	3.9	<b>30</b>	2.3
Dissolved Phosphorus (P)	µg/L	NV	NV	NV	<100	<100	<100	<100	<100	<100	<100	<100
Dissolved Potassium (K)	µg/L	NV	NV	NV	1300	1300	1200	1300	1000	5000	1100	2800
Dissolved Selenium (Se)	µg/L	50	1.0	10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Silver (Ag)	µg/L	NV	0.25	2.5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Sodium (Na)	µg/L	NV	NV	NV	6700	6700	7000	6700	16000	180000	3700	9300
Dissolved Strontium (Sr)	µg/L	2400	NV	210000	130	130	23	130	13	150	17	71
Dissolved Thallium (Tl)	µg/L	2	0.8	8	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Tin (Sn)	µg/L	2400	NV	NV	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Titanium (Ti)	µg/L	NV	NV	NV	<2.0	<2.0	<2.0	<2.0	<2.0	4	3.1	2.1
Dissolved Uranium (U)	µg/L	20	15	150	0.86	0.89	<0.10	0.45	<0.10	8.2	<0.10	0.46
Dissolved Vanadium (V)	µg/L	6.2	NV	1200	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Zinc (Zn)	µg/L	NV	7	70	<5.0	<5.0	<b>25</b>	<5.0	<b>8.7</b>	<5.0	<b>18</b>	5.1

**Notes:**

NV - No value

a - Potable water criteria are the lowest of the Guidelines of Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and the NS Tier I Environmental Quality Standards (EQS) (potable, residential, coarse)

b - Aluminum guideline for FWAL = 5 µg/L for pH <6.5 and 100 µg/L for pH ≥6.5.

c - Cadmium guideline for FWAL is 0.04 ug/L at hardness <17 mg/L, otherwise calculated as  $10^{(0.83[\log(\text{hardness})]-2.46)}$

d - Copper guideline = When water hardness is 0 to <82 mg/L, the guideline is 2 µg/L; when hardness is > 82 to < 180 mg/L equation:  $e = 0.845[\ln(\text{hardness})] - 1.465 \times 0.2 \mu\text{g/L}$  is used to determine the copper guideline. At hardness >180 mg/L the guideline is 4 µg/L. Water hardness at all locations are <82 mg/L and as such, the guideline is 2 µg/L.

e - Lead guideline = When water hardness is 0 to <60 mg/L, the guideline is 1ug/L; when hardness is >60 to < 180 mg/L equation:  $e = 1.273[\ln(\text{hardness})] - 4.705 \text{ ug/L}$  is used to determine the lead guideline. At hardness >180 mg/L the guideline is 7 ug/L.

f - Manganese guideline calculated using the Manganese - Canadian Water Quality Guideline and Benchmark Calculator provided in Appendix B of the Scientific Criteria Document for the Development of the Canadian Water Quality Guidelines for the Protection of Aquatic Life. Criteria for manganese was posted December 19, 2019. All results were compared to guidelines in effect at the time of sampling.

g - Nickel guideline = When water hardness is 0 to <60 mg/L, the guideline is 25 ug/L; when hardness is > 60 to < 180 mg/L equation:  $e = 0.76[\ln(\text{hardness})] + 1.06 \text{ ug/L}$  is used to determine the nickel guideline. At hardness >180 mg/L the guideline is 150 ug/L.

**Screening:**

Shaded Indicates values are greater than potable water criteria

**Bold** Indicates values are greater than CCME FWAL

Underlined Indicates values are greater than NS Tier II PSS

**References:**

Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ)

Nova Scotia Tier I Environmental Quality Standards (EQS) for groundwater, potable, residential, coarse

Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines for the Protection of Freshwater Aquatic Life (FWAL)

Nova Scotia Tier II Pathway Specific Standards (PSS) for Groundwater Discharging to Surface Water, >10 m from Surface Water Body



**Table 4.3 - Groundwater Results - Hydrocarbons**  
**Goldboro Gold Project, Guysborough County, NS**

Parameters	Units	Criteria			MW1-A	MW1-B	MW5-A			MW5-B			MW6-A			MW6-B			MW7-A			
		Potable Water <sup>a</sup>	CCME; FWAL	NS Tier II PSS; GW > 10m from SW	MW1-A	MW1-B	MW5-A	MW5-A	MW5-A	MW5-B	MW5-B	MW5-B	MW6-A	MW6-A	MW6-A	MW6-B	MW6-B	MW6-B	MW7-A	MW7-A	MWB	MW7-A
Date					12/17/2021	12/17/2021	7/21/2021	10/26/2021	12/16/2021	7/21/2021	10/26/2021	12/16/2021	7/21/2021	10/27/2021	12/16/2021	7/21/2021	10/27/2021	12/16/2021	7/21/2021	10/27/2021	10/27/2021	12/16/2021
Benzene	mg/L	0.005	0.37	4.6	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Toluene	mg/L	0.024	0.002	4.2	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethylbenzene	mg/L	0.0016	0.09	3.2	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total Xylenes	mg/L	0.02	NV	2.8	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
C6 - C10 (less BTEX)	mg/L	NV	NV	NV	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090
>C10-C16 Hydrocarbons	mg/L	NV	NV	NV	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
>C16-C21 Hydrocarbons	mg/L	NV	NV	NV	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
>C21-<C32 Hydrocarbons	mg/L	NV	NV	NV	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090
Modified TPH	mg/L	4.4 (Gas) 3.2 (Fuel) 7.8 (Lube)	NV	13 (Gas) 0.84 (Fuel) 0.48 (Lube)	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090
Resemblance					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Notes:**

NV - No value  
a - Potable water criteria are the lowest of the Guidelines of Canadian Drinking Water Quality (GCDWQ)

**Screening:**

Shaded Indicates values are greater than potable water criteria  
**Bold** Indicates values are greater than CCME FWAL  
Underlined Indicates values are greater than NS Tier II PSS

**References:**

- Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ)
- Nova Scotia Tier I Environmental Quality Standards (EQS) for groundwater, potable, residential, coarse
- Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines for the Protection of Freshwater Aquatic Life (FWAL)
- Nova Scotia Tier II Pathway Specific Standards (PSS) for Groundwater Discharging to Surface Water, >10 m from Surface Water Body

**Table 4.3 - Groundwater Results - Hydrocarbons**  
**Goldboro Gold Project, Guysborough County, NS**

Parameters	Units	Criteria			MW7-B			MW15-A			MW15-B			MW16-A	MW16-B	MW20-A			MW20-B				
		Potable Water <sup>a</sup>	CCME; FWAL	NS Tier II PSS; GW > 10m from SW	MW7-B	MW7-B	MW7-B	MW15-A	MW15-A	MW15-A	MW15-B	MW15-B	MW15-B	MW16-A	MW16-B	MW20-A	MW20-A	MW20-A	MW20-B	MW DUP	MW20-B	MW20-B	
Date					7/21/2021	10/27/2021	12/16/2021	7/21/2021	10/27/2021	12/16/2021	7/21/2021	10/27/2021	12/16/2021	12/16/2021	12/16/2021	7/21/2021	10/27/2021	12/16/2021	7/21/2021	7/21/2021	10/27/2021	12/16/2021	
Benzene	mg/L	0.005	0.37	4.6	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Toluene	mg/L	0.024	0.002	4.2	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.001	<b>0.0023</b>	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethylbenzene	mg/L	0.0016	0.09	3.2	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total Xylenes	mg/L	0.02	NV	2.8	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
C6 - C10 (less BTEX)	mg/L	NV	NV	NV	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090
>C10-C16 Hydrocarbons	mg/L	NV	NV	NV	<0.050	<0.050	<0.050	0.21	0.4	0.44	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.07	<0.050	<0.050	
>C16-C21 Hydrocarbons	mg/L	NV	NV	NV	<0.050	<0.050	<0.050	0.062	0.15	0.32	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.080	0.51	<0.050	<0.050
>C21-<C32 Hydrocarbons	mg/L	NV	NV	NV	<0.090	<0.090	<0.090	<0.090	0.16	0.16	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.15	0.27	<0.090	<0.090
Modified TPH	mg/L	4.4 (Gas) 3.2 (Fuel) 7.8 (Lube)	NV	13 (Gas) 0.84 (Fuel) 0.48 (Lube)	<0.090	<0.090	<0.090	0.27	0.71	<u>0.91</u>	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.15	<u>0.85</u>	<0.090	<0.090
Resemblance					-	-	-	Fuel oil range	Fuel oil range	Fuel oil range	-	-	-	-	-	-	-	-	-	Fuel / lube range	-	-	-

**Notes:**

NV - No value

a - Potable water criteria are the lowest of the Guidelines of Canadian Drinking Water Quality (GCDWQ)

**Screening:**

Shaded Indicates values are greater than potable water criteria

**Bold** Indicates values are greater than CCME FWAL

Underlined Indicates values are greater than NS Tier II PSS

**References:**

Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ)

Nova Scotia Tier I Environmental Quality Standards (EQS) for groundwater, potable, residential, coarse

Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines for the Protection of Freshwater Aquatic Life (FWAL)

Nova Scotia Tier II Pathway Specific Standards (PSS) for Groundwater Discharging to Surface Water, >10 m from Surface Water Body

**Table 4.3 - Groundwater Results - Hydrocarbons**  
**Goldboro Gold Project, Guysborough County, NS**

Parameters	Units	Criteria			MW21-A	MW21-B	MW23-A	MW23-B	MW26-A		MW26-B				MW29-A	MW29-B	MW30-A		MW30-B	
		Potable Water <sup>a</sup>	CCME; FWAL	NS Tier II PSS; GW > 10m from SW	MW21-A	MW21-B	MW23-A	MW23-B	MW26-A	MW26-A	MW26-B	MWA	MW26-B	DUP-C	MW29-A	MW29-B	MW30-A	MW30-A	MW30-B	MW30-B
Date					12/16/2021	12/16/2021	12/16/2021	12/16/2021	10/27/2021	12/15/2021	10/27/2021	10/27/2021	12/15/2021	12/15/2021	12/17/2021	12/17/2021	10/27/2021	12/16/2021	10/27/2021	12/16/2021
Benzene	mg/L	0.005	0.37	4.6	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Toluene	mg/L	0.024	0.002	4.2	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<b>0.0054</b>	<b>0.0054</b>	0.0019	0.0018	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethylbenzene	mg/L	0.0016	0.09	3.2	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total Xylenes	mg/L	0.02	NV	2.8	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
C6 - C10 (less BTEX)	mg/L	NV	NV	NV	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090
>C10-C16 Hydrocarbons	mg/L	NV	NV	NV	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.061	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
>C16-C21 Hydrocarbons	mg/L	NV	NV	NV	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.061	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
>C21-<C32 Hydrocarbons	mg/L	NV	NV	NV	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.11	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090
Modified TPH	mg/L	4.4 (Gas) 3.2 (Fuel) 7.8 (Lube)	NV	13 (Gas) 0.84 (Fuel) 0.48 (Lube)	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.11	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090
Resemblance					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Notes:**

NV - No value

a - Potable water criteria are the lowest of the Guidelines of Canadian Drinking Water Quality (GCDWQ)

**Screening:**

Shaded Indicates values are greater than potable water criteria

**Bold** Indicates values are greater than CCME FWAL

Underlined Indicates values are greater than NS Tier II PSS

**References:**

Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ)

Nova Scotia Tier I Environmental Quality Standards (EQS) for groundwater, potable, residential, coarse

Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines for the Protection of Freshwater Aquatic Life (FWAL)

Nova Scotia Tier II Pathway Specific Standards (PSS) for Groundwater Discharging to Surface Water, >10 m from Surface Water Body

**Table 4.3 - Groundwater Results - Hydrocarbons**  
**Goldboro Gold Project, Guysborough County, NS**

Parameters	Units	Criteria			MW42-A		MW42-B		MW43-A			MW43-B		MW46-A			MW46-B	
		Potable Water <sup>a</sup>	CCME; FWAL	NS Tier II PSS; GW > 10m from SW	MW42-A	MW42-A	MW42-B	MW42-B	MW43-A	MW43-A	DUP-A	MW43-B	MW43-B	MW46-A	MW46-A	DUP-D	MW46-B	MW46-B
Date					10/27/2021	12/16/2021	10/27/2021	12/16/2021	10/27/2021	12/16/2021	12/16/2021	10/27/2021	12/16/2021	10/27/2021	12/16/2021	12/16/2021	10/27/2021	12/15/2021
Benzene	mg/L	0.005	0.37	4.6	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Toluene	mg/L	0.024	0.002	4.2	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<b>0.004</b>	<b>0.0036</b>	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethylbenzene	mg/L	0.0016	0.09	3.2	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total Xylenes	mg/L	0.02	NV	2.8	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
C6 - C10 (less BTEX)	mg/L	NV	NV	NV	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090
>C10-C16 Hydrocarbons	mg/L	NV	NV	NV	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
>C16-C21 Hydrocarbons	mg/L	NV	NV	NV	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
>C21-<C32 Hydrocarbons	mg/L	NV	NV	NV	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090
Modified TPH	mg/L	4.4 (Gas) 3.2 (Fuel) 7.8 (Lube)	NV	13 (Gas) 0.84 (Fuel) 0.48 (Lube)	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090
Resemblance					-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Notes:**

NV - No value

a - Potable water criteria are the lowest of the Guidelines of Canadian Drinking Water Quality (GCDWQ)

**Screening:**

Shaded Indicates values are greater than potable water criteria

**Bold** Indicates values are greater than CCME FWAL

Underlined Indicates values are greater than NS Tier II PSS

**References:**

Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ)

Nova Scotia Tier I Environmental Quality Standards (EQS) for groundwater, potable, residential, coarse

Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines for the Protection of Freshwater Aquatic Life (FWAL)

Nova Scotia Tier II Pathway Specific Standards (PSS) for Groundwater Discharging to Surface Water, >10 m from Surface Water Body

**Table 4.3 - Groundwater Results - Hydrocarbons**  
**Goldboro Gold Project, Guysborough County, NS**

Parameters	Units	Criteria			MW51-A	MW51-B		MW54-A	MW54-B	MW55-A	MW55-B	MW56-A	MW56-B
		Potable Water <sup>a</sup>	CCME; FWAL	NS Tier II PSS; GW > 10m from SW	MW51-A	MW51-B	DUP-B	MW54-A	MW54-B	MW55-A	MW55-B	MW56-A	MW56-B
Date					12/17/2021	12/17/2021	12/17/2021	12/17/2021	12/17/2021	12/17/2021	12/17/2021	12/17/2021	12/17/2021
Benzene	mg/L	0.005	0.37	4.6	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Toluene	mg/L	0.024	0.002	4.2	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<b>0.0058</b>	<0.0010	<0.0010
Ethylbenzene	mg/L	0.0016	0.09	3.2	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total Xylenes	mg/L	0.02	NV	2.8	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
C6 - C10 (less BTEX)	mg/L	NV	NV	NV	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090
>C10-C16 Hydrocarbons	mg/L	NV	NV	NV	<0.050	<0.050	<0.050	<0.050	<0.050	0.089	<0.050	<0.050	<0.050
>C16-C21 Hydrocarbons	mg/L	NV	NV	NV	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
>C21-<C32 Hydrocarbons	mg/L	NV	NV	NV	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090
Modified TPH	mg/L	4.4 (Gas) 3.2 (Fuel) 7.8 (Lube)	NV	13 (Gas) 0.84 (Fuel) 0.48 (Lube)	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090
Resemblance					-	-	-	-	-	-	-	-	-

**Notes:**

NV - No value

a - Potable water criteria are the lowest of the Guidelines of Canadian Drinking Water Quality (GCDWQ)

**Screening:**

Shaded Indicates values are greater than potable water criteria

**Bold** Indicates values are greater than CCME FWAL

Underlined Indicates values are greater than NS Tier II PSS

**References:**

Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ)

Nova Scotia Tier I Environmental Quality Standards (EQS) for groundwater, potable, residential, coarse

Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines for the Protection of Freshwater Aquatic Life (FWAL)

Nova Scotia Tier II Pathway Specific Standards (PSS) for Groundwater Discharging to Surface Water, >10 m from Surface Water Body

**Table 4.4 - Groundwater QA/QC**  
**Goldboro Gold Project, Guysborough County, NS**

Parameters	Units	RDL	MW-DUP			MWA			MWB			DUP-C			DUP-A			DUP-D			DUP-B		
			MW20-B 7/21/2021	MW-DUP Field Dup of MW20-B	Relative Percent Difference	MW26-B 10/27/2021	MWA Field Dup of MW26-B	Relative Percent Difference	MW7-A 10/27/2021	MWB Field Dup of MW7-A	Relative Percent Difference	MW26-B 12/15/2021	DUP-C Field Dup of MW26-B	Relative Percent Difference	MW43-A 12/16/2021	DUP-A Field Dup of MW43-A	Relative Percent Difference	MW46-A 12/15/2021	DUP-D Field Dup of MW46-A	Relative Percent Difference	MW51-B 12/17/2021	DUP-B Field Dup of MW51-B	Relative Percent Difference
<b>Calculated Parameters</b>																							
Anion Sum	me/L	N/A	2.3	2.27	NC	2.55	2.65	NC	0.46	0.46	NC	2.95	2.89	NC	1.12	1.14	NC	0.77	0.81	NC	1.84	1.83	NC
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	1.0	100	100	NC	97	100	NC	9.9	10	NC	100	98	2	47	47	0	21	23	9	73	73	0
Calculated TDS	mg/L	1.0	130	130	NC	140	150	NC	33	33	NC	170	170	0	74	74	0	54	55	2	100	100	0
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.0	<1.0	<1.0	NC	1.30	1.60	21	<1.0	<1.0	NC	1.60	1.70	NC	<1.0	<1.0	NC	<1.0	<1.0	NC	<1.0	<1.0	NC
Cation Sum	me/L	N/A	2.39	2.36	NC	2.29	2.32	NC	0.38	0.37	NC	2.79	2.8	NC	1.27	1.22	NC	0.75	0.73	NC	1.61	1.63	NC
Hardness (CaCO3)	mg/L	1.0	88	86	NC	27	28	NC	3.3	3.4	3	35	35	0	43	42	2	19	19	0	65	65	0
Ion Balance (% Difference)	%	N/A	1.92	1.94	NC	5.37	6.64	NC	9.52	10.8	NC	2.79	1.58	NC	6.28	3.39	NC	1.32	5.19	NC	6.67	5.78	NC
Langelier Index (@ 20C)	N/A	N/A	-0.111	0.023	NC	-0.291	-0.163	NC	-4.65	-4.57	NC	-0.069	-0.045	NC	-1.49	-1.7	NC	-2.66	-2.69	NC	-0.211	-0.089	NC
Langelier Index (@ 4C)	N/A	N/A	-0.362	-0.228	NC	-0.541	-0.414	NC	-4.9	-4.82	NC	-0.319	-0.296	NC	-1.74	-1.96	NC	-2.91	-2.94	NC	-0.462	-0.34	NC
Nitrate (N)	mg/L	0.050	<0.050	<0.050	NC	<0.050	<0.050	NC	0.063	<0.050	NC	<0.050	<0.050	NC	<0.050	<0.050	NC	<0.050	<0.050	NC	0.21	0.19	NC
Saturation pH (@ 20C)	N/A	N/A	7.91	7.92	NC	8.43	8.40	NC	10.50	10.50	NC	8.31	8.32	NC	8.52	8.53	NC	9.21	9.17	NC	8.12	8.11	NC
Saturation pH (@ 4C)	N/A	N/A	8.16	8.18	NC	8.68	8.65	NC	10.8	10.7	NC	8.56	8.57	NC	8.77	8.78	NC	9.47	9.43	NC	8.37	8.36	NC
<b>Inorganics</b>																							
Total Alkalinity (Total as CaCO3)	mg/L	5.0	100.00	100.00	NC	98.00	100.00	NC	9.90	10.00	1	100.00	100.00	0	47.00	47.00	0	21.00	23.00	NC	74.00	74.00	0
Total Chemical Oxygen Demand	mg/L	20	33	42	NC	<20	<20	NC	<20	<20	NC	<20	<20	NC	34	36	NC	22	34	NC	<20	<20	NC
Dissolved Chloride (Cl-)	mg/L	1.0	8.2	7.3	NC	14	14	NC	6.6	6.6	NC	16	15	6	6.7	6.8	1	7.3	7.1	3	4.6	4.6	NC
Colour	TCU	10	25	13	NC	14	13	7	<5.0	<5.0	NC	<5.0	<5.0	NC	17	25	NC	<5.0	<5.0	NC	<5.0	<5.0	NC
Nitrate + Nitrite (N)	mg/L	0.050	<0.050	<0.050	NC	<0.050	<0.050	NC	0.074	0.069	7	<0.050	<0.050	NC	<0.050	<0.050	NC	<0.050	<0.050	NC	0.21	0.2	NC
Nitrite (N)	mg/L	0.010	<0.010	<0.010	NC	0.036	<0.010	NC	0.011	0.038	110	<0.010	<0.010	NC	<0.010	<0.010	NC	<0.010	<0.010	NC	<0.010	0.013	NC
Nitrogen (Ammonia Nitrogen)	mg/L	0.050	<0.050	<0.050	NC	0.14	0.13	7	<0.050	<0.050	NC	0.09	0.08	NC	0.13	0.12	NC	<0.050	<0.050	NC	<0.050	<0.050	NC
Dissolved Organic Carbon (C)	mg/L	0.5	3.4	3.5	NC	2.9	2.8	NC	1.1	0.9	20	2.4	2.5	NC	7	9	25	0.9	1	NC	1.5	1	NC
Total Organic Carbon (C)	mg/L	0.50	9.20	9.50	NC	5.50	3.20	NC	4.80	4.90	NC	2.90	3.10	7	9.20	8.50	8	1.80	2.30	NC	1.60	1.60	NC
Orthophosphate (P)	mg/L	0.010	<0.010	<0.010	NC	0.019	0.019	0	<0.010	<0.010	NC	0.047	0.054	NC	<0.010	<0.010	NC	<0.010	<0.010	NC	<0.010	<0.010	NC
pH	pH	N/A	7.80	7.95	NC	8.14	8.24	NC	5.85	5.90	NC	8.24	8.27	NC	7.03	6.83	NC	6.55	6.48	NC	7.90	8.02	NC
Total Phosphorus	mg/L	0.020	0.05	0.05	NC	0.04	0.03	9	<0.020	<0.020	NC	<0.020	0.03	NC	<0.020	<0.020	NC	0.03	<0.020	NC	<0.020	<0.020	NC
Dissolved Phosphorus (P)	mg/L	0.0010	0.0099	0.0085	15	0.2	0.22	NC	0.073	0.18	NC	0.13	0.14	NC	0.079	0.075	5	0.087	0.13	40	0.048	0.058	19
Reactive Silica (SiO2)	mg/L	0.50	10	11	NC	8.7	8.7	NC	8.2	8.1	NC	8.3	8.5	2	11	11	0	12	12	0	6.8	7.2	6
Total Suspended Solids	mg/L	2.0	43	20	NC	86	88	NC	620	600	NC	83	89	7	170	140	19	150	84	56	76	100	27
Dissolved Sulphate (SO4)	mg/L	2.0	2.3	2.6	NC	9.7	9.7	0	3.4	3.5	NC	21	21	0	<2.0	<2.0	NC	6.8	6.8	NC	10	9.8	NC
Total Cyanide (CN)	mg/L	0.0050	<0.0050	<0.0050	NC	<0.0050	<0.0050	NC	<0.0050	<0.0050	NC	<0.0050	<0.0050	NC	<0.0050	<0.0050	NC	<0.0050	<0.0050	NC	<0.0050	<0.0050	NC
Turbidity	NTU	0.10	32	19	NC	98	83	NC	220	98	NC	87	62	34	67	78	15	67	67	0	49	37	28
WAD Cyanide (Free)	mg/L	0.0010	<0.0010	<0.0010	NC	<0.0010	<0.0010	NC	<0.0010	<0.0010	NC	<0.0010	<0.0010	NC	<0.0010	<0.0010	NC	<0.0010	<0.0010	NC	<0.0010	<0.0010	NC
Conductivity	uS/cm	1.0	210.00	220.00	NC	230.00	230.00	NC	43.00	44.00	NC	280.00	280.00	0	110.00	110.00	0	79.00	78.00	1	160.00	160.00	0

**Table 4.4 - Groundwater QA/QC  
Goldboro Gold Project, Guysborough County, NS**

Parameters	Units	RDL	MW-DUP			MWA			MWB			DUP-C			DUP-A			DUP-D			DUP-B			
			MW20-B 7/21/2021	MW-DUP Field Dup of MW20-B	Relative Percent Difference	MW26-B 10/27/2021	MWA Field Dup of MW26-B	Relative Percent Difference	MW7-A 10/27/2021	MWB Field Dup of MW7-A	Relative Percent Difference	MW26-B 12/15/2021	DUP-C Field Dup of MW26-B	Relative Percent Difference	MW43-A 12/16/2021	DUP-A Field Dup of MW43-A	Relative Percent Difference	MW46-A 12/15/2021	DUP-D Field Dup of MW46-A	Relative Percent Difference	MW51-B 12/17/2021	DUP-B Field Dup of MW51-B	Relative Percent Difference	
<b>Dissolved Metals</b>																								
Dissolved Aluminum (Al)	ug/L	5.0	56	72	25	230	140	49	100	99	1	55	60	9	32	31.9	NC	20	23	NC	11	12	NC	
Dissolved Antimony (Sb)	ug/L	1.0	<1.0	<1.0	NC	<1.0	<1.0	NC	<1.0	<1.0	NC	<1.0	<1.0	NC	<1.0	<1.0	NC	<1.0	<1.0	NC	<1.0	<1.0	NC	
Dissolved Arsenic (As)	ug/L	1.0	77.00	76.00	1	180.00	180.00	0	<1.0	<1.0	NC	180.00	180.00	0	<1.0	<1.0	NC	3.60	3.70	NC	<1.0	<1.0	NC	
Dissolved Barium (Ba)	ug/L	1.0	11.00	11.00	0	4.80	3.40	NC	13.00	13.00	0	3.50	3.70	NC	13.10	12.70	3	9.00	8.90	1	8.00	8.00	0	
Dissolved Beryllium (Be)	ug/L	1.0	<1.0	<1.0	NC	<0.10	<0.10	NC	<0.10	<0.10	NC	<0.10	<0.10	NC	<0.10	<0.10	NC	<0.10	<0.10	NC	<0.10	<0.10	NC	
Dissolved Bismuth (Bi)	ug/L	2.0	<2.0	<2.0	NC	<2.0	<2.0	NC	<2.0	<2.0	NC	<2.0	<2.0	NC	<2.0	<2.0	NC	<2.0	<2.0	NC	<2.0	<2.0	NC	
Dissolved Boron (B)	ug/L	50	<50	<50	NC	230.00	230.00	NC	<50	<50	NC	230.00	240.00	NC	<50	<50	NC	<50	<50	NC	<50	<50	NC	
Dissolved Cadmium (Cd)	ug/L	0.010	<0.010	<0.010	NC	<0.010	<0.010	NC	0.02	0.02	NC	<0.010	<0.010	NC	0.07	0.07	3	0.02	0.02	NC	0.02	0.02	NC	
Dissolved Calcium (Ca)	ug/L	100	28000	27000	4	8800	9100	3	620	670	8	12000	12000	0	13700	13100	4	6000	5900	2	23000	23000	0	
Dissolved Chromium (Cr)	ug/L	1.0	<1.0	<1.0	NC	<1.0	<1.0	NC	<1.0	<1.0	NC	<1.0	<1.0	NC	<1.0	<1.0	NC	<1.0	<1.0	NC	<1.0	<1.0	NC	
Dissolved Cobalt (Co)	ug/L	0.40	<0.40	<0.40	NC	<0.40	<0.40	NC	9.90	10.00	1	<0.40	<0.40	NC	11.80	11.70	1	2.50	2.40	4	1.70	1.60	NC	
Dissolved Copper (Cu)	ug/L	0.50	<0.50	0.51	NC	13	0.65	181	26	28	7	<0.50	<0.50	NC	4.17	4.26	2	2.5	3.1	21	0.77	0.79	NC	
Dissolved Iron (Fe)	ug/L	50	410	450	9	230	96	NC	190	190	NC	<50	<50	NC	606	590	NC	<50	<50	NC	<50	<50	NC	
Dissolved Lead (Pb)	ug/L	0.50	<0.50	<0.50	NC	1.1	<0.50	NC	<0.50	<0.50	NC	<0.50	<0.50	NC	<0.50	<0.50	NC	<0.50	<0.50	NC	<0.50	<0.50	NC	
Dissolved Magnesium (Mg)	ug/L	100	4400	4400	0	1200	1200	0	430	430	NC	1400	1500	7	2220	2170	2	1000	1100	10	1700	1700	0	
Dissolved Manganese (Mn)	ug/L	2.0	140.00	140.00	0	71.00	69.00	3	140.00	130.00	7	91.00	92.00	1	2,250.00	2,190.00	3	74.00	70.00	6	240.00	240.00	0	
Dissolved Mercury (Hg)	ug/L	0.013	<0.013	<0.013	NC	<0.013	<0.013	NC	<0.013	<0.013	NC	<0.01	<0.01	NC	<0.013	<0.013	NC	<0.013	<0.013	NC	0.02	<0.013	NC	
Total Mercury (Hg)	ug/L	0.013	<0.013	<0.013	NC	<0.013	<0.013	NC	<0.013	<0.013	NC	<0.01	<0.01	NC	0.035	0.020	NC	<0.013	<0.013	NC	<0.013	<0.013	NC	
Dissolved Molybdenum (Mo)	ug/L	2.0	3.8	3.9	NC	17	17	NC	<2.0	<2.0	NC	7.7	8.1	NC	<2.0	<2.0	NC	<2.0	<2.0	NC	3.2	3.1	NC	
Dissolved Nickel (Ni)	ug/L	2.0	<2.0	<2.0	NC	<2.0	<2.0	NC	5.00	5.50	NC	<2.0	<2.0	NC	7.70	7.60	1	23.00	23.00	0	<2.0	<2.0	NC	
Dissolved Phosphorus (P)	ug/L	100	<100	<100	NC	<100	<100	NC	<100	<100	NC	<100	<100	NC	<100	<100	NC	<100	<100	NC	<100	<100	NC	
Dissolved Potassium (K)	ug/L	100	2900	2900	0	4400	4300	2	1100	1000	10	3700	3700	0	3030	2870	5	1500	1400	7	1300	1300	0	
Dissolved Selenium (Se)	ug/L	0.50	<0.50	<0.50	NC	<0.50	<0.50	NC	<0.50	<0.50	NC	<0.50	<0.50	NC	<0.50	<0.50	NC	<0.50	<0.50	NC	<0.50	<0.50	NC	
Dissolved Silver (Ag)	ug/L	0.10	<0.10	<0.10	NC	<0.10	<0.10	NC	0.11	0.13	NC	<0.10	<0.10	NC	<0.10	<0.10	NC	<0.10	<0.10	NC	<0.10	<0.10	NC	
Dissolved Sodium (Na)	ug/L	100	13,000.00	13,000.00	0	37,000.00	38,000.00	3	6,400.00	6,200.00	3	46,000.00	46,000.00	0	6,780.00	6,590.00	3	7,600.00	7,300.00	4	6,700.00	6,700.00	0	
Dissolved Strontium (Sr)	ug/L	2.0	340	330	3	98	100	2	8.5	7.9	NC	140	140	0	98.9	96.7	2	32	31	3	130	130	0	
Dissolved Thallium (Tl)	ug/L	0.10	<0.10	<0.10	NC	<0.10	<0.10	NC	<0.10	<0.10	NC	<0.10	<0.10	NC	<0.10	<0.10	NC	<0.10	<0.10	NC	<0.10	<0.10	NC	
Dissolved Tin (Sn)	ug/L	2.0	<2.0	<2.0	NC	<2.0	<2.0	NC	<2.0	<2.0	NC	<2.0	<2.0	NC	<2.0	<2.0	NC	<2.0	<2.0	NC	<2.0	<2.0	NC	
Dissolved Titanium (Ti)	ug/L	2.0	2.1	3.1	NC	11	5.3	NC	<2.0	<2.0	NC	<2.0	<2.0	NC	<2.0	<2.0	NC	<2.0	<2.0	NC	<2.0	<2.0	NC	
Dissolved Uranium (U)	ug/L	0.10	1.4	1.4	0	1.7	1.8	6	<0.10	<0.10	NC	1.9	2	5	0.18	0.14	NC	<0.10	<0.10	NC	0.86	0.89	3	
Dissolved Vanadium (V)	ug/L	2.0	<2.0	<2.0	NC	<2.0	<2.0	NC	<2.0	<2.0	NC	<2.0	<2.0	NC	<2.0	<2.0	NC	<2.0	<2.0	NC	<2.0	<2.0	NC	
Dissolved Zinc (Zn)	ug/L	5.0	6.7	7.7	NC	6.4	<5.0	NC	47	47	0	<5.0	<5.0	NC	16.6	27.8	NC	5.8	6.4	NC	<5.0	<5.0	NC	
<b>Hydrocarbons</b>																								
Benzene	mg/L	0.0010	<0.0010	<0.0010	NC	<0.0010	<0.0010	NC	<0.0010	<0.0010	NC	<0.0010	<0.0010	NC	<0.0010	<0.0010	NC	<0.0010	<0.0010	NC	<0.0010	<0.0010	NC	
Toluene	mg/L	0.0010	<0.0010	<0.0010	NC	0.0054	0.0054	0	<0.0010	<0.0010	NC	0.0019	0.0018	NC	0.004	0.0036	NC	<0.0010	<0.0010	NC	<0.0010	<0.0010	NC	
Ethylbenzene	mg/L	0.0010	<0.0010	<0.0010	NC	<0.0010	<0.0010	NC	<0.0010	<0.0010	NC	<0.0010	<0.0010	NC	<0.0010	<0.0010	NC	<0.0010	<0.0010	NC	<0.0010	<0.0010	NC	
Total Xylenes	mg/L	0.0020	<0.0020	<0.0020	NC	<0.0020	<0.0020	NC	<0.0020	<0.0020	NC	<0.0020	<0.0020	NC	<0.0020	<0.0020	NC	<0.0020	<0.0020	NC	<0.0020	<0.0020	NC	
C6 - C10 (less BTEX)	mg/L	0.090	<0.090	<0.090	NC	<0.090	<0.090	NC	<0.090	<0.090	NC	<0.090	<0.090	NC	<0.090	<0.090	NC	<0.090	<0.090	NC	<0.090	<0.090	NC	
>C10-C16 Hydrocarbons	mg/L	0.050	<0.050	0.07	NC	<0.050	<0.050	NC	<0.050	<0.050	NC	<0.061	<0.050	NC	<0.050	<0.050	NC	<0.050	<0.050	NC	<0.050	<0.050	NC	
>C16-C21 Hydrocarbons	mg/L	0.050	<0.080	0.51	NC	<0.050	<0.050	NC	<0.050	<0.050	NC	<0.061	<0.050	NC	<0.050	<0.050	NC	<0.050	<0.050	NC	<0.050	<0.050	NC	
>C21->C32 Hydrocarbons	mg/L	0.090	<0.15	0.27	NC	<0.090	<0.090	NC	<0.090	<0.090	NC	<0.11	<0.090	NC	<0.090	<0.090	NC	<0.090	<0.090	NC	<0.090	<0.090	NC	
Modified TPH (Tier1)	mg/L	0.090	<0.15	0.85	NC	<0.090	<0.090	NC	<0.090	<0.090	NC	<0.11	<0.090	NC	<0.090	<0.090	NC	<0.090	<0.090	NC	<0.090	<0.090	NC	

N/A = not applicable

NC = not calculated

Reliable RPD calculation (both samples < 5x RDL); when both results are not detected, or when one result is detected and the other is not detected, RPD is not calculated

**Screening:**

Shaded RPD > 40%

# **Attachment 5**

**Laboratory Certificates of Analysis**





Your P.O. #: 0267  
 Your Project #: GOLDBORO  
 Your C.O.C. #: 834678-01-01, 834678-02-01

**Attention: Derek Bullock**

Anaconda Mining Inc  
 Goldboro Gold Mine  
 570 Goldbrook Road  
 Goldboro, NS  
 Canada BOH 1L0

**Report Date: 2021/08/04**  
 Report #: R6749646  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1K7983**

**Received: 2021/07/23, 10:37**

Sample Matrix: Water  
 # Samples Received: 11

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Carbonate, Bicarbonate and Hydroxide	11	N/A	2021/07/29	N/A	SM 23 4500-CO2 D
Alkalinity	10	N/A	2021/07/29	ATL SOP 00013	EPA 310.2 R1974 m
Alkalinity	1	N/A	2021/07/30	ATL SOP 00013	EPA 310.2 R1974 m
Chloride	11	N/A	2021/07/29	ATL SOP 00014	SM 23 4500-Cl- E m
Chemical Oxygen Demand (COD)	11	2021/07/26	2021/07/27	ATL SOP 00042	SM 23 5220D m
Colour	11	N/A	2021/07/29	ATL SOP 00020	SM 23 2120C m
Free (WAD) Cyanide (1)	11	N/A	2021/07/28	CAM SOP-00457	OMOE E3015 m
Total Cyanide (1)	11	2021/07/28	2021/07/28	CAM SOP-00457	OMOE E3015 5 m
Organic carbon - Diss (DOC) (as rec'd) (3)	5	N/A	2021/07/27	ATL SOP 00203	SM 23 5310B m
Organic carbon - Diss (DOC) (as rec'd) (3)	5	N/A	2021/07/30	ATL SOP 00203	SM 23 5310B m
Organic carbon - Diss (DOC) (as rec'd) (3)	1	N/A	2021/08/04	ATL SOP 00203	SM 23 5310B m
Conductance - water	11	N/A	2021/07/29	ATL SOP 00004	SM 23 2510B m
TEH in Water (PIRI)	6	2021/07/27	2021/07/27	ATL SOP 00113	Atl. RBCA v3.1 m
TEH in Water (PIRI)	5	2021/07/27	2021/07/28	ATL SOP 00113	Atl. RBCA v3.1 m
Hardness (calculated as CaCO3)	11	N/A	2021/07/30	ATL SOP 00048	Auto Calc
Mercury - Dissolved (CVAA,LL)	11	2021/07/28	2021/07/28	ATL SOP 00026	EPA 245.1 R3 m
Mercury - Total (CVAA,LL)	11	2021/07/28	2021/07/28	ATL SOP 00026	EPA 245.1 R3 m
Metals Water Diss. MS (as rec'd)	10	N/A	2021/07/29	ATL SOP 00058	EPA 6020B R2 m
Metals Water Diss. MS (as rec'd)	1	N/A	2021/07/30	ATL SOP 00058	EPA 6020B R2 m
Ion Balance (% Difference)	11	N/A	2021/07/30	N/A	Auto Calc.
Anion and Cation Sum	11	N/A	2021/07/30	N/A	Auto Calc.
Total Phosphorus-Dis-Low-Lab Filtered (2)	10	2021/07/29	2021/07/30	AB SOP-00024	SM23 4500-P A,B,F m
Total Phosphorus-Dis-Low-Lab Filtered (2)	1	2021/07/30	2021/07/31	AB SOP-00024	SM23 4500-P A,B,F m
Nitrogen Ammonia - water	10	N/A	2021/07/28	ATL SOP 00015	EPA 350.1 R2 m
Nitrogen Ammonia - water	1	N/A	2021/07/29	ATL SOP 00015	EPA 350.1 R2 m
Nitrogen - Nitrate + Nitrite	11	N/A	2021/07/29	ATL SOP 00016	USGS I-2547-11m
Nitrogen - Nitrite	11	N/A	2021/07/29	ATL SOP 00017	SM 23 4500-NO2- B m
Nitrogen - Nitrate (as N)	11	N/A	2021/07/30	ATL SOP 00018	ASTM D3867-16
pH (4)	11	N/A	2021/07/29	ATL SOP 00003	SM 23 4500-H+ B m
Phosphorus - ortho	11	N/A	2021/07/29	ATL SOP 00021	SM 23 4500-P E m
Sat. pH and Langelier Index (@ 20C)	11	N/A	2021/07/30	ATL SOP 00049	Auto Calc.



Your P.O. #: 0267  
 Your Project #: GOLDBORO  
 Your C.O.C. #: 834678-01-01, 834678-02-01

**Attention: Derek Bullock**

Anaconda Mining Inc  
 Goldboro Gold Mine  
 570 Goldbrook Road  
 Goldboro, NS  
 Canada BOH 1L0

**Report Date: 2021/08/04**  
 Report #: R6749646  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1K7983**  
**Received: 2021/07/23, 10:37**

Sample Matrix: Water  
 # Samples Received: 11

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Sat. pH and Langelier Index (@ 4C)	11	N/A	2021/07/30	ATL SOP 00049	Auto Calc.
Reactive Silica	11	N/A	2021/07/29	ATL SOP 00022	EPA 366.0 m
Sulphate	11	N/A	2021/07/29	ATL SOP 00023	ASTM D516-16 m
Total Dissolved Solids (TDS calc)	11	N/A	2021/07/30	N/A	Auto Calc.
Organic carbon - Total (TOC) (5)	10	N/A	2021/07/29	ATL SOP 00203	SM 23 5310B m
Organic carbon - Total (TOC) (5)	1	N/A	2021/08/03	ATL SOP 00203	SM 23 5310B m
ModTPH (T1) Calc. for Water	3	N/A	2021/07/28	N/A	Atl. RBCA v3 m
ModTPH (T1) Calc. for Water	8	N/A	2021/07/29	N/A	Atl. RBCA v3 m
Phosphorus Total Colourimetry	11	2021/07/27	2021/07/28	ATL SOP 00057	EPA 365.1 R2 m
Total Suspended Solids	11	2021/07/27	2021/07/30	ATL SOP 00007	SM 23 2540D m
Turbidity	11	N/A	2021/07/28	ATL SOP 00011	EPA 180.1 R2 m
VPH in Water (PIRI)	8	N/A	2021/07/27	ATL SOP 00130	Atl. RBCA v3.1 m
VPH in Water (PIRI)	3	N/A	2021/07/28	ATL SOP 00130	Atl. RBCA v3.1 m

**Remarks:**

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.



Your P.O. #: 0267  
Your Project #: GOLDBORO  
Your C.O.C. #: 834678-01-01, 834678-02-01

**Attention: Derek Bullock**

Anaconda Mining Inc  
Goldboro Gold Mine  
570 Goldbrook Road  
Goldboro, NS  
Canada BOH 1L0

**Report Date: 2021/08/04**  
Report #: R6749646  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1K7983**

**Received: 2021/07/23, 10:37**

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

- (1) This test was performed by Bureau Veritas Mississauga
- (2) This test was performed by Bureau Veritas Calgary via Bedford
- (3) TOC / DOC present in the sample should be considered as non-purgeable TOC / DOC
- (4) The APHA Standard Method require pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the APHA Standard Method holding time.
- (5) TOC / DOC present in the sample should be considered as non-purgeable TOC / DOC.

Encryption Key



Bureau Veritas  
04 Aug 2021 10:35:16

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Maryann Comeau, Customer Experience Supervisor/PM

Email: Maryann.COMEAU@bureauveritas.com

Phone# (902)420-0203 Ext:298

=====

This report has been generated and distributed using a secure automated process.

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



BUREAU  
VERITAS

BV Labs Job #: C1K7983  
Report Date: 2021/08/04

Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: SN

**RESULTS OF ANALYSES OF WATER**

BV Labs ID		QES148		QES149		QES150		QES151		
Sampling Date		2021/07/21 11:50		2021/07/21 12:05		2021/07/21 12:30		2021/07/21 12:40		
COC Number		834678-01-01		834678-01-01		834678-01-01		834678-01-01		
	UNITS	MW15-A	RDL	MW15-B	RDL	MW20-A	RDL	MW20-B	RDL	QC Batch
<b>Calculated Parameters</b>										
Anion Sum	me/L	1.59	N/A	3.27	N/A	0.910	N/A	2.30	N/A	7482839
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	71	1.0	120	1.0	26	1.0	100	1.0	7482836
Calculated TDS	mg/L	100	1.0	190	1.0	76	1.0	130	1.0	7482843
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	<1.0	1.0	<1.0	1.0	<1.0	1.0	7482836
Cation Sum	me/L	1.76	N/A	3.27	N/A	1.45	N/A	2.39	N/A	7482839
Hardness (CaCO3)	mg/L	27	1.0	95	1.0	15	1.0	88	1.0	7482837
Ion Balance (% Difference)	%	5.07	N/A	0.00	N/A	22.9	N/A	1.92	N/A	7482838
Langelier Index (@ 20C)	N/A	-1.63		0.0730		-2.94		-0.111		7482841
Langelier Index (@ 4C)	N/A	-1.88		-0.177		-3.19		-0.362		7482842
Nitrate (N)	mg/L	<0.050	0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050	7482840
Saturation pH (@ 20C)	N/A	8.61		7.81		9.30		7.91		7482841
Saturation pH (@ 4C)	N/A	8.86		8.06		9.55		8.16		7482842
<b>Inorganics</b>										
Total Alkalinity (Total as CaCO3)	mg/L	71	5.0	120	25	26	5.0	100	10	7488508
Total Chemical Oxygen Demand	mg/L	120	20	28	20	<20	20	33	20	7483239
Dissolved Chloride (Cl-)	mg/L	6.2	1.0	7.8	1.0	14	1.0	8.2	1.0	7488526
Colour	TCU	60	25	14	5.0	49	10	25	5.0	7488545
Nitrate + Nitrite (N)	mg/L	<0.050	0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050	7488561
Nitrite (N)	mg/L	<0.010	0.010	<0.010	0.010	<0.010	0.010	<0.010	0.010	7488567
Nitrogen (Ammonia Nitrogen)	mg/L	0.64	0.050	0.20	0.050	<0.050	0.050	<0.050	0.050	7487858
Dissolved Organic Carbon (C)	mg/L	16	0.5	4.8	0.5	4.1	0.5	3.4	0.5	7482828
Total Organic Carbon (C)	mg/L	36	0.50	5.9	0.50	3.2	0.50	9.2	0.50	7487526
Orthophosphate (P)	mg/L	<0.010	0.010	0.097	0.010	<0.010	0.010	<0.010	0.010	7488547
pH	pH	6.98		7.88		6.35		7.80		7490076
Total Phosphorus	mg/L	0.14	0.020	0.35	0.020	0.079	0.020	0.052	0.020	7484980
Dissolved Phosphorus (P)	mg/L	0.070	0.0010	0.022	0.0010	0.0011	0.0010	0.0099	0.0010	7495954
Reactive Silica (SiO2)	mg/L	12	0.50	14	0.50	11	0.50	10	0.50	7488537
Total Suspended Solids	mg/L	120	8.3	160	5.0	74	2.0	43	2.5	7484997
Dissolved Sulphate (SO4)	mg/L	<2.0	2.0	29	2.0	<2.0	2.0	2.3	2.0	7488530
Total Cyanide (CN)	mg/L	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0050	7488499
Turbidity	NTU	98	0.10	230	1.0	96	0.10	32	0.10	7487815
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	<0.0010	0.0010	<0.0010	0.0010	<0.0010	0.0010	7488500
Conductivity	uS/cm	150	1.0	310	1.0	91	1.0	210	1.0	7490075
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable										



BUREAU  
VERITAS

BV Labs Job #: C1K7983  
Report Date: 2021/08/04

Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: SN

**RESULTS OF ANALYSES OF WATER**

BV Labs ID		QES152			QES153			QES154		
Sampling Date		2021/07/21 09:15			2021/07/21 09:25			2021/07/21 10:00		
COC Number		834678-01-01			834678-01-01			834678-01-01		
	UNITS	MW5-A	RDL	QC Batch	MW5-B	RDL	QC Batch	MW6-A	RDL	QC Batch
<b>Calculated Parameters</b>										
Anion Sum	me/L	1.35	N/A	7482839	1.35	N/A	7482839	0.360	N/A	7482839
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	52	1.0	7482836	55	1.0	7482836	7.1	1.0	7482836
Calculated TDS	mg/L	84	1.0	7482843	84	1.0	7482843	27	1.0	7482843
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	7482836	<1.0	1.0	7482836	<1.0	1.0	7482836
Cation Sum	me/L	1.20	N/A	7482839	1.28	N/A	7482839	0.360	N/A	7482839
Hardness (CaCO3)	mg/L	34	1.0	7482837	45	1.0	7482837	6.5	1.0	7482837
Ion Balance (% Difference)	%	5.88	N/A	7482838	2.66	N/A	7482838	0.00	N/A	7482838
Langelier Index (@ 20C)	N/A	-1.37		7482841	-1.20		7482841	-4.41		7482841
Langelier Index (@ 4C)	N/A	-1.62		7482842	-1.45		7482842	-4.66		7482842
Nitrate (N)	mg/L	<0.050	0.050	7482840	<0.050	0.050	7482840	<0.050	0.050	7482840
Saturation pH (@ 20C)	N/A	8.56		7482841	8.41		7482841	10.2		7482841
Saturation pH (@ 4C)	N/A	8.81		7482842	8.66		7482842	10.5		7482842
<b>Inorganics</b>										
Total Alkalinity (Total as CaCO3)	mg/L	52	5.0	7490154	55	5.0	7488570	7.1	5.0	7488570
Total Chemical Oxygen Demand	mg/L	26	20	7483239	21	20	7483239	33	20	7483239
Dissolved Chloride (Cl-)	mg/L	7.5	1.0	7490155	6.6	1.0	7488581	5.9	1.0	7488581
Colour	TCU	53	25	7490181	6.0	5.0	7488604	<5.0	5.0	7488604
Nitrate + Nitrite (N)	mg/L	<0.050	0.050	7490186	<0.050	0.050	7488614	<0.050	0.050	7488614
Nitrite (N)	mg/L	<0.010	0.010	7490187	<0.010	0.010	7488618	<0.010	0.010	7488618
Nitrogen (Ammonia Nitrogen)	mg/L	<0.050	0.050	7487858	<0.050	0.050	7487858	<0.050	0.050	7490710
Dissolved Organic Carbon (C)	mg/L	7.4	0.5	7482828	2.3	0.5	7490182	0.6	0.5	7490182
Total Organic Carbon (C)	mg/L	8.3	0.50	7487526	2.4	0.50	7487526	0.55	0.50	7487526
Orthophosphate (P)	mg/L	<0.010	0.010	7490183	<0.010	0.010	7488608	<0.010	0.010	7488608
pH	pH	7.20		7490076	7.22		7490076	5.82		7490076
Total Phosphorus	mg/L	0.036	0.020	7484980	0.023	0.020	7484980	1.2	0.040	7484980
Dissolved Phosphorus (P)	mg/L	0.0041	0.0010	7495954	0.0032	0.0010	7495954	0.0044	0.0010	7495954
Reactive Silica (SiO2)	mg/L	14	0.50	7490167	15	0.50	7488588	6.5	0.50	7488588
Total Suspended Solids	mg/L	23	1.0	7484997	27	2.0	7484997	600	5.0	7484997
Dissolved Sulphate (SO4)	mg/L	5.1	2.0	7490163	3.2	2.0	7488585	2.2	2.0	7488585
Total Cyanide (CN)	mg/L	<0.0050	0.0050	7488499	<0.0050	0.0050	7488499	<0.0050	0.0050	7488499
Turbidity	NTU	22	0.10	7487815	14	0.10	7487815	3.3	0.10	7487815
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	7488500	<0.0010	0.0010	7488500	<0.0010	0.0010	7488500
Conductivity	uS/cm	110	1.0	7490075	120	1.0	7490075	36	1.0	7490075
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable										



BUREAU  
VERITAS

BV Labs Job #: C1K7983  
Report Date: 2021/08/04

Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: SN

**RESULTS OF ANALYSES OF WATER**

BV Labs ID		QES155			QES217			QES218		
Sampling Date		2021/07/21 10:15			2021/07/21 11:15			2021/07/21 11:25		
COC Number		834678-01-01			834678-02-01			834678-02-01		
	UNITS	MW6-B	RDL	QC Batch	MW7-A	RDL	QC Batch	MW7-B	RDL	QC Batch
<b>Calculated Parameters</b>										
Anion Sum	me/L	2.69	N/A	7482839	0.410	N/A	7482839	5.47	N/A	7482839
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	96	1.0	7482836	9.6	1.0	7482836	120	1.0	7482836
Calculated TDS	mg/L	160	1.0	7482843	29	1.0	7482843	330	1.0	7482843
Carb. Alkalinity (calc. as CaCO3)	mg/L	4.2	1.0	7482836	<1.0	1.0	7482836	1.3	1.0	7482836
Cation Sum	me/L	2.61	N/A	7482839	0.400	N/A	7482839	5.24	N/A	7482839
Hardness (CaCO3)	mg/L	13	1.0	7482837	4.6	1.0	7482837	98	1.0	7482837
Ion Balance (% Difference)	%	1.51	N/A	7482838	1.23	N/A	7482838	2.15	N/A	7482838
Langelier Index (@ 20C)	N/A	-0.0850		7482841	-4.22		7482841	0.226		7482841
Langelier Index (@ 4C)	N/A	-0.335		7482842	-4.48		7482842	-0.0230		7482842
Nitrate (N)	mg/L	<0.050	0.050	7482840	0.072	0.050	7482840	<0.050	0.050	7482840
Saturation pH (@ 20C)	N/A	8.76		7482841	10.3		7482841	7.82		7482841
Saturation pH (@ 4C)	N/A	9.01		7482842	10.6		7482842	8.07		7482842
<b>Inorganics</b>										
Total Alkalinity (Total as CaCO3)	mg/L	100	10	7488570	9.6	5.0	7488570	130	25	7488570
Total Chemical Oxygen Demand	mg/L	45	20	7483239	<20	20	7483239	66	20	7483239
Dissolved Chloride (Cl-)	mg/L	11	1.0	7488581	5.7	1.0	7488581	27	1.0	7488581
Colour	TCU	26	5.0	7488604	<5.0	5.0	7488604	<5.0	5.0	7488604
Nitrate + Nitrite (N)	mg/L	<0.050	0.050	7488614	0.072	0.050	7488614	<0.050	0.050	7488614
Nitrite (N)	mg/L	<0.010	0.010	7488618	<0.010	0.010	7488618	<0.010	0.010	7488618
Nitrogen (Ammonia Nitrogen)	mg/L	0.15	0.050	7487858	<0.050	0.050	7487872	0.061	0.050	7487872
Dissolved Organic Carbon (C)	mg/L	15	0.5	7496871	0.7	0.5	7490182	14	0.5	7490182
Total Organic Carbon (C)	mg/L	8.5	0.50	7496869	0.53	0.50	7487526	15	0.50	7487526
Orthophosphate (P)	mg/L	0.024	0.010	7488608	<0.010	0.010	7488608	<0.010	0.010	7488608
pH	pH	8.67		7490076	6.08		7490076	8.05		7490078
Total Phosphorus	mg/L	0.20	0.020	7484980	0.093	0.020	7484980	0.027	0.020	7484980
Dissolved Phosphorus (P)	mg/L	0.016	0.0010	7495955	0.0025	0.0010	7495954	0.0037	0.0010	7495954
Reactive Silica (SiO2)	mg/L	8.1	0.50	7488588	5.6	0.50	7488588	13	0.50	7488588
Total Suspended Solids	mg/L	74	5.0	7484997	23	1.0	7484997	59	2.0	7484997
Dissolved Sulphate (SO4)	mg/L	17	2.0	7488585	2.6	2.0	7488585	110	4.0	7488585
Total Cyanide (CN)	mg/L	<0.0050	0.0050	7488499	<0.0050	0.0050	7488499	<0.0050	0.0050	7488499
Turbidity	NTU	180	1.0	7487815	5.7	0.10	7487815	22	0.10	7487815
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	7488500	<0.0010	0.0010	7488500	<0.0010	0.0010	7488500
Conductivity	uS/cm	260	1.0	7490075	41	1.0	7490075	550	1.0	7490077
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable										



BUREAU  
VERITAS

BV Labs Job #: C1K7983  
Report Date: 2021/08/04

Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: SN

### RESULTS OF ANALYSES OF WATER

BV Labs ID		QES219		
Sampling Date		2021/07/21		
COC Number		834678-02-01		
	UNITS	MW DUP	RDL	QC Batch
<b>Calculated Parameters</b>				
Anion Sum	me/L	2.27	N/A	7482839
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	100	1.0	7482836
Calculated TDS	mg/L	130	1.0	7482843
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	7482836
Cation Sum	me/L	2.36	N/A	7482839
Hardness (CaCO3)	mg/L	86	1.0	7482837
Ion Balance (% Difference)	%	1.94	N/A	7482838
Langelier Index (@ 20C)	N/A	0.0230		7482841
Langelier Index (@ 4C)	N/A	-0.228		7482842
Nitrate (N)	mg/L	<0.050	0.050	7482840
Saturation pH (@ 20C)	N/A	7.92		7482841
Saturation pH (@ 4C)	N/A	8.18		7482842
<b>Inorganics</b>				
Total Alkalinity (Total as CaCO3)	mg/L	100	25	7488570
Total Chemical Oxygen Demand	mg/L	42	20	7483239
Dissolved Chloride (Cl-)	mg/L	7.3	1.0	7488581
Colour	TCU	13	5.0	7488604
Nitrate + Nitrite (N)	mg/L	<0.050	0.050	7488614
Nitrite (N)	mg/L	<0.010	0.010	7488618
Nitrogen (Ammonia Nitrogen)	mg/L	<0.050	0.050	7487872
Dissolved Organic Carbon (C)	mg/L	3.5	0.5	7490182
Total Organic Carbon (C)	mg/L	9.5	0.50	7487526
Orthophosphate (P)	mg/L	<0.010	0.010	7488608
pH	pH	7.95		7490076
Total Phosphorus	mg/L	0.054	0.020	7484980
Dissolved Phosphorus (P)	mg/L	0.0085	0.0010	7495954
Reactive Silica (SiO2)	mg/L	11	0.50	7488588
Total Suspended Solids	mg/L	20	2.0	7484997
Dissolved Sulphate (SO4)	mg/L	2.6	2.0	7488585
Total Cyanide (CN)	mg/L	<0.0050	0.0050	7488499
Turbidity	NTU	19	0.10	7487815
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	7488500
Conductivity	uS/cm	220	1.0	7490075
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable				



BUREAU  
VERITAS

BV Labs Job #: C1K7983  
Report Date: 2021/08/04

Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: SN

### MERCURY BY COLD VAPOUR AA (WATER)

BV Labs ID		QES148	QES149	QES150	QES151	QES152	QES153		
Sampling Date		2021/07/21 11:50	2021/07/21 12:05	2021/07/21 12:30	2021/07/21 12:40	2021/07/21 09:15	2021/07/21 09:25		
COC Number		834678-01-01	834678-01-01	834678-01-01	834678-01-01	834678-01-01	834678-01-01		
	UNITS	MW15-A	MW15-B	MW20-A	MW20-B	MW5-A	MW5-B	RDL	QC Batch
<b>Metals</b>									
Dissolved Mercury (Hg)	ug/L	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	0.013	7485594
Total Mercury (Hg)	ug/L	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	0.013	7485590
RDL = Reportable Detection Limit QC Batch = Quality Control Batch									

BV Labs ID		QES154	QES155	QES217	QES218	QES219		
Sampling Date		2021/07/21 10:00	2021/07/21 10:15	2021/07/21 11:15	2021/07/21 11:25	2021/07/21		
COC Number		834678-01-01	834678-01-01	834678-02-01	834678-02-01	834678-02-01		
	UNITS	MW6-A	MW6-B	MW7-A	MW7-B	MW DUP	RDL	QC Batch
<b>Metals</b>								
Dissolved Mercury (Hg)	ug/L	<0.013	<0.013	<0.013	<0.013	<0.013	0.013	7485594
Total Mercury (Hg)	ug/L	<0.013	<0.013	<0.013	<0.013	<0.013	0.013	7485590
RDL = Reportable Detection Limit QC Batch = Quality Control Batch								





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VERITAS

BV Labs Job #: C1K7983  
Report Date: 2021/08/04

Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: SN

### ELEMENTS BY ICP/MS (WATER)

BV Labs ID		QES148	QES149	QES150	QES151	QES152	QES153		
Sampling Date		2021/07/21 11:50	2021/07/21 12:05	2021/07/21 12:30	2021/07/21 12:40	2021/07/21 09:15	2021/07/21 09:25		
COC Number		834678-01-01	834678-01-01	834678-01-01	834678-01-01	834678-01-01	834678-01-01		
	UNITS	MW15-A	MW15-B	MW20-A	MW20-B	MW5-A	MW5-B	RDL	QC Batch

Metals									
Dissolved Aluminum (Al)	ug/L	220	52	17	56	36	25	5.0	7490947
Dissolved Antimony (Sb)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7490947
Dissolved Arsenic (As)	ug/L	39	360	5.0	77	3.7	<1.0	1.0	7490947
Dissolved Barium (Ba)	ug/L	11	12	14	11	22	16	1.0	7490947
Dissolved Beryllium (Be)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7490947
Dissolved Bismuth (Bi)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	7490947
Dissolved Boron (B)	ug/L	<50	<50	<50	<50	<50	<50	50	7490947
Dissolved Cadmium (Cd)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	7490947
Dissolved Calcium (Ca)	ug/L	7600	31000	4100	28000	11000	15000	100	7490947
Dissolved Chromium (Cr)	ug/L	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7490947
Dissolved Cobalt (Co)	ug/L	1.4	<0.40	0.48	<0.40	1.5	0.52	0.40	7490947
Dissolved Copper (Cu)	ug/L	1.2	<0.50	<0.50	<0.50	1.2	<0.50	0.50	7490947
Dissolved Iron (Fe)	ug/L	13000	<50	18000	410	910	470	50	7490947
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	<0.50	<0.50	0.93	<0.50	0.50	7490947
Dissolved Magnesium (Mg)	ug/L	1900	4100	1200	4400	1200	1800	100	7490947
Dissolved Manganese (Mn)	ug/L	520	320	380	140	280	100	2.0	7490947
Dissolved Molybdenum (Mo)	ug/L	11	8.8	<2.0	3.8	26	<2.0	2.0	7490947
Dissolved Nickel (Ni)	ug/L	4.9	2.9	<2.0	<2.0	5.3	<2.0	2.0	7490947
Dissolved Phosphorus (P)	ug/L	<100	<100	<100	<100	<100	<100	100	7490947
Dissolved Potassium (K)	ug/L	3600	5600	1500	2900	3500	2400	100	7490947
Dissolved Selenium (Se)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7490947
Dissolved Silver (Ag)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7490947
Dissolved Sodium (Na)	ug/L	14000	28000	10000	13000	9400	6700	100	7490947
Dissolved Strontium (Sr)	ug/L	31	400	34	340	39	55	2.0	7490947
Dissolved Thallium (Tl)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7490947
Dissolved Tin (Sn)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	7490947
Dissolved Titanium (Ti)	ug/L	8.4	2.5	<2.0	2.1	<2.0	<2.0	2.0	7490947
Dissolved Uranium (U)	ug/L	0.17	1.6	<0.10	1.4	0.27	0.20	0.10	7490947
Dissolved Vanadium (V)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	7490947
Dissolved Zinc (Zn)	ug/L	7.0	<5.0	<5.0	6.7	6.0	15	5.0	7490947

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch



**ELEMENTS BY ICP/MS (WATER)**

BV Labs ID		QES154	QES155	QES217	QES218	QES219		
Sampling Date		2021/07/21 10:00	2021/07/21 10:15	2021/07/21 11:15	2021/07/21 11:25	2021/07/21		
COC Number		834678-01-01	834678-01-01	834678-02-01	834678-02-01	834678-02-01		
	UNITS	MW6-A	MW6-B	MW7-A	MW7-B	MW DUP	RDL	QC Batch
<b>Metals</b>								
Dissolved Aluminum (Al)	ug/L	44	170	47	40	72	5.0	7490947
Dissolved Antimony (Sb)	ug/L	<1.0	8.3	<1.0	<1.0	<1.0	1.0	7490947
Dissolved Arsenic (As)	ug/L	1.7	75	<1.0	43	76	1.0	7490947
Dissolved Barium (Ba)	ug/L	17	3.9	16	21	11	1.0	7490947
Dissolved Beryllium (Be)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7490947
Dissolved Bismuth (Bi)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	7490947
Dissolved Boron (B)	ug/L	<50	120	<50	<50	<50	50	7490947
Dissolved Cadmium (Cd)	ug/L	0.039	<0.010	0.024	<0.010	<0.010	0.010	7490947
Dissolved Calcium (Ca)	ug/L	1600	4300	1000	32000	27000	100	7490947
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7490947
Dissolved Cobalt (Co)	ug/L	9.5	<0.40	16	<0.40	<0.40	0.40	7490947
Dissolved Copper (Cu)	ug/L	5.0	1.5	53	<0.50	0.51	0.50	7490947
Dissolved Iron (Fe)	ug/L	180	99	160	<50	450	50	7490947
Dissolved Lead (Pb)	ug/L	0.56	<0.50	<0.50	<0.50	<0.50	0.50	7490947
Dissolved Magnesium (Mg)	ug/L	590	600	510	4100	4400	100	7490947
Dissolved Manganese (Mn)	ug/L	140	13	310	330	140	2.0	7490947
Dissolved Molybdenum (Mo)	ug/L	<2.0	4.0	<2.0	4.7	3.9	2.0	7490947
Dissolved Nickel (Ni)	ug/L	32	2.2	7.0	3.4	<2.0	2.0	7490947
Dissolved Phosphorus (P)	ug/L	<100	<100	<100	<100	<100	100	7490947
Dissolved Potassium (K)	ug/L	1200	3200	1200	2500	2900	100	7490947
Dissolved Selenium (Se)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7490947
Dissolved Silver (Ag)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7490947
Dissolved Sodium (Na)	ug/L	4300	52000	6300	74000	13000	100	7490947
Dissolved Strontium (Sr)	ug/L	9.4	61	8.2	690	330	2.0	7490947
Dissolved Thallium (Tl)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7490947
Dissolved Tin (Sn)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	7490947
Dissolved Titanium (Ti)	ug/L	<2.0	5.9	<2.0	<2.0	3.1	2.0	7490947
Dissolved Uranium (U)	ug/L	<0.10	1.4	<0.10	9.4	1.4	0.10	7490947
Dissolved Vanadium (V)	ug/L	<2.0	4.1	<2.0	<2.0	<2.0	2.0	7490947
Dissolved Zinc (Zn)	ug/L	42	<5.0	61	<5.0	7.7	5.0	7490947
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								



BUREAU  
VERITAS

BV Labs Job #: C1K7983  
Report Date: 2021/08/04

Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: SN

**ATLANTIC RBCA HYDROCARBONS (WATER)**

BV Labs ID		QES148	QES149	QES150		QES151		
Sampling Date		2021/07/21 11:50	2021/07/21 12:05	2021/07/21 12:30		2021/07/21 12:40		
COC Number		834678-01-01	834678-01-01	834678-01-01		834678-01-01		
	UNITS	MW15-A	MW15-B	MW20-A	RDL	MW20-B	RDL	QC Batch
<b>Petroleum Hydrocarbons</b>								
Benzene	mg/L	<0.0010	<0.0010	<0.0010	0.0010	<0.0010	0.0010	7485242
Toluene	mg/L	<0.0010	0.0023	<0.0010	0.0010	<0.0010	0.0010	7485242
Ethylbenzene	mg/L	<0.0010	<0.0010	<0.0010	0.0010	<0.0010	0.0010	7485242
Total Xylenes	mg/L	<0.0020	<0.0020	<0.0020	0.0020	<0.0020	0.0020	7485242
C6 - C10 (less BTEX)	mg/L	<0.090	<0.090	<0.090	0.090	<0.090	0.090	7485242
>C10-C16 Hydrocarbons	mg/L	0.21	<0.050	<0.050	0.050	<0.050	0.050	7485924
>C16-C21 Hydrocarbons	mg/L	0.062	<0.050	<0.050	0.050	<0.080 (1)	0.080	7485924
>C21-<C32 Hydrocarbons	mg/L	<0.090	<0.090	<0.090	0.090	<0.15 (1)	0.15	7485924
Modified TPH (Tier1)	mg/L	0.27	<0.090	<0.090	0.090	<0.15	0.15	7482793
Reached Baseline at C32	mg/L	Yes	NA	NA	N/A	NA	N/A	7485924
Hydrocarbon Resemblance	mg/L	COMMENT (2)	NA	NA	N/A	NA	N/A	7485924
<b>Surrogate Recovery (%)</b>								
Isobutylbenzene - Extractable	%	95	99	104		98		7485924
n-Dotriacontane - Extractable	%	91	99	103		97		7485924
Isobutylbenzene - Volatile	%	97	97	97		98		7485242
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable (1) Elevated TEH RDL(s) due to laboratory artifact. (2) One product in fuel oil range.								



BUREAU  
VERITAS

BV Labs Job #: C1K7983  
Report Date: 2021/08/04

Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: SN

### ATLANTIC RBCA HYDROCARBONS (WATER)

BV Labs ID		QES152		QES153		QES154	QES155		
Sampling Date		2021/07/21 09:15		2021/07/21 09:25		2021/07/21 10:00	2021/07/21 10:15		
COC Number		834678-01-01		834678-01-01		834678-01-01	834678-01-01		
	UNITS	MW5-A	QC Batch	MW5-B	QC Batch	MW6-A	MW6-B	RDL	QC Batch
<b>Petroleum Hydrocarbons</b>									
Benzene	mg/L	<0.0010	7485242	<0.0010	7485242	<0.0010	<0.0010	0.0010	7485242
Toluene	mg/L	<0.0010	7485242	<0.0010	7485242	<0.0010	<0.0010	0.0010	7485242
Ethylbenzene	mg/L	<0.0010	7485242	<0.0010	7485242	<0.0010	<0.0010	0.0010	7485242
Total Xylenes	mg/L	<0.0020	7485242	<0.0020	7485242	<0.0020	<0.0020	0.0020	7485242
C6 - C10 (less BTEX)	mg/L	<0.090	7485242	<0.090	7485242	<0.090	<0.090	0.090	7485242
>C10-C16 Hydrocarbons	mg/L	<0.050	7485355	<0.050	7485924	<0.050	<0.050	0.050	7485355
>C16-C21 Hydrocarbons	mg/L	<0.050	7485355	<0.050	7485924	<0.050	<0.050	0.050	7485355
>C21-<C32 Hydrocarbons	mg/L	<0.090	7485355	<0.090	7485924	<0.090	<0.090	0.090	7485355
Modified TPH (Tier1)	mg/L	<0.090	7482793	<0.090	7482793	<0.090	<0.090	0.090	7482793
Reached Baseline at C32	mg/L	NA	7485355	NA	7485924	NA	NA	N/A	7485355
Hydrocarbon Resemblance	mg/L	NA	7485355	NA	7485924	NA	NA	N/A	7485355
<b>Surrogate Recovery (%)</b>									
Isobutylbenzene - Extractable	%	93	7485355	99	7485924	97	94		7485355
n-Dotriacontane - Extractable	%	102	7485355	99	7485924	96	100		7485355
Isobutylbenzene - Volatile	%	97	7485242	97	7485242	97	97		7485242
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable									



**ATLANTIC RBCA HYDROCARBONS (WATER)**

BV Labs ID		QES217	QES218	QES219		
Sampling Date		2021/07/21 11:15	2021/07/21 11:25	2021/07/21		
COC Number		834678-02-01	834678-02-01	834678-02-01		
	<b>UNITS</b>	<b>MW7-A</b>	<b>MW7-B</b>	<b>MW DUP</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Petroleum Hydrocarbons</b>						
Benzene	mg/L	<0.0010	<0.0010	<0.0010	0.0010	7487462
Toluene	mg/L	<0.0010	<0.0010	<0.0010	0.0010	7487462
Ethylbenzene	mg/L	<0.0010	<0.0010	<0.0010	0.0010	7487462
Total Xylenes	mg/L	<0.0020	<0.0020	<0.0020	0.0020	7487462
C6 - C10 (less BTEX)	mg/L	<0.090	<0.090	<0.090	0.090	7487462
>C10-C16 Hydrocarbons	mg/L	<0.050	<0.050	0.070	0.050	7485355
>C16-C21 Hydrocarbons	mg/L	<0.050	<0.050	0.51	0.050	7485355
>C21-<C32 Hydrocarbons	mg/L	<0.090	<0.090	0.27	0.090	7485355
Modified TPH (Tier1)	mg/L	<0.090	<0.090	0.85	0.090	7482793
Reached Baseline at C32	mg/L	NA	NA	Yes	N/A	7485355
Hydrocarbon Resemblance	mg/L	NA	NA	COMMENT (1)	N/A	7485355
<b>Surrogate Recovery (%)</b>						
Isobutylbenzene - Extractable	%	99	85	98		7485355
n-Dotriacontane - Extractable	%	105	87	102		7485355
Isobutylbenzene - Volatile	%	102	101	102		7487462
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable (1) Unidentified compound(s) in fuel / lube range. Possible lube oil fraction.						



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### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	6.3°C
Package 2	5.3°C
Package 3	5.0°C

Sample QES148 [MW15-A] : RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L.

Sample QES149 [MW15-B] : ortho-Phosphate > Phosphorus: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample QES150 [MW20-A] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.  
Poor RCap Ion Balance due to sample matrix. Possibly due to fine particulate matter.

Sample QES152 [MW5-A] : RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L.

Sample QES155 [MW6-B] : ortho-Phosphate > Phosphorus: Both values fall within the method uncertainty for duplicates and are likely equivalent.  
Dissolved versus Total Organic Carbon: Re-analysis of new aliquots from client supplied bottles confirmed original results.

Sample QES217 [MW7-A] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.

**Results relate only to the items tested.**



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### QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7482828	NGI	Matrix Spike	Dissolved Organic Carbon (C)	2021/07/27		94	%	85 - 115
7482828	NGI	Spiked Blank	Dissolved Organic Carbon (C)	2021/07/27		99	%	80 - 120
7482828	NGI	Method Blank	Dissolved Organic Carbon (C)	2021/07/27	<0.5		mg/L	
7482828	NGI	RPD	Dissolved Organic Carbon (C)	2021/07/27	0.87		%	15
7483239	ZZH	Matrix Spike	Total Chemical Oxygen Demand	2021/07/27		99	%	80 - 120
7483239	ZZH	QC Standard	Total Chemical Oxygen Demand	2021/07/27		98	%	80 - 120
7483239	ZZH	Spiked Blank	Total Chemical Oxygen Demand	2021/07/27		100	%	80 - 120
7483239	ZZH	Method Blank	Total Chemical Oxygen Demand	2021/07/27	<20		mg/L	
7483239	ZZH	RPD	Total Chemical Oxygen Demand	2021/07/27	NC		%	25
7484980	EMT	Matrix Spike [QES218-09]	Total Phosphorus	2021/07/28		110	%	80 - 120
7484980	EMT	Spiked Blank	Total Phosphorus	2021/07/28		103	%	80 - 120
7484980	EMT	Method Blank	Total Phosphorus	2021/07/28	<0.020		mg/L	
7484980	EMT	RPD [QES218-09]	Total Phosphorus	2021/07/28	10		%	25
7484997	MKX	QC Standard	Total Suspended Solids	2021/07/30		99	%	80 - 120
7484997	MKX	Method Blank	Total Suspended Solids	2021/07/30	<1.0		mg/L	
7484997	MKX	RPD [QES149-11]	Total Suspended Solids	2021/07/30	2.5		%	20
7485242	THL	Matrix Spike	Isobutylbenzene - Volatile	2021/07/27		95	%	70 - 130
			Benzene	2021/07/27		93	%	70 - 130
			Toluene	2021/07/27		92	%	70 - 130
			Ethylbenzene	2021/07/27		95	%	70 - 130
			Total Xylenes	2021/07/27		100	%	70 - 130
7485242	THL	Spiked Blank	Isobutylbenzene - Volatile	2021/07/27		96	%	70 - 130
			Benzene	2021/07/27		94	%	70 - 130
			Toluene	2021/07/27		95	%	70 - 130
			Ethylbenzene	2021/07/27		98	%	70 - 130
			Total Xylenes	2021/07/27		104	%	70 - 130
7485242	THL	Method Blank	Isobutylbenzene - Volatile	2021/07/27		98	%	70 - 130
			Benzene	2021/07/27	<0.0010		mg/L	
			Toluene	2021/07/27	<0.0010		mg/L	
			Ethylbenzene	2021/07/27	<0.0010		mg/L	
			Total Xylenes	2021/07/27	<0.0020		mg/L	
			C6 - C10 (less BTEX)	2021/07/27	<0.090		mg/L	
7485242	THL	RPD	Benzene	2021/07/27	NC		%	40
			Toluene	2021/07/27	NC		%	40
			Ethylbenzene	2021/07/27	NC		%	40
			Total Xylenes	2021/07/27	NC		%	40
			C6 - C10 (less BTEX)	2021/07/27	NC		%	40
7485355	MGN	Matrix Spike [QES155-01]	Isobutylbenzene - Extractable	2021/07/27		95	%	70 - 130
			n-Dotriacontane - Extractable	2021/07/27		102	%	70 - 130
			>C10-C16 Hydrocarbons	2021/07/27		94	%	70 - 130
			>C16-C21 Hydrocarbons	2021/07/27		85	%	70 - 130
			>C21-<C32 Hydrocarbons	2021/07/27		79	%	70 - 130
7485355	MGN	Spiked Blank	Isobutylbenzene - Extractable	2021/07/27		98	%	70 - 130
			n-Dotriacontane - Extractable	2021/07/27		99	%	70 - 130
			>C10-C16 Hydrocarbons	2021/07/27		103	%	70 - 130
			>C16-C21 Hydrocarbons	2021/07/27		92	%	70 - 130
			>C21-<C32 Hydrocarbons	2021/07/27		86	%	70 - 130
7485355	MGN	Method Blank	Isobutylbenzene - Extractable	2021/07/27		98	%	70 - 130
			n-Dotriacontane - Extractable	2021/07/27		96	%	70 - 130
			>C10-C16 Hydrocarbons	2021/07/27	<0.050		mg/L	
			>C16-C21 Hydrocarbons	2021/07/27	<0.050		mg/L	
			>C21-<C32 Hydrocarbons	2021/07/27	<0.090		mg/L	
7485355	MGN	RPD [QES154-01]	>C10-C16 Hydrocarbons	2021/07/27	NC		%	40



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### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			>C16-C21 Hydrocarbons	2021/07/27	NC		%	40
			>C21-<C32 Hydrocarbons	2021/07/27	NC		%	40
7485590	NHU	Matrix Spike [QES149-12]	Total Mercury (Hg)	2021/07/28		96	%	80 - 120
7485590	NHU	Spiked Blank	Total Mercury (Hg)	2021/07/28		96	%	80 - 120
7485590	NHU	Method Blank	Total Mercury (Hg)	2021/07/28	<0.013		ug/L	
7485590	NHU	RPD [QES148-12]	Total Mercury (Hg)	2021/07/28	NC		%	20
7485594	NHU	Matrix Spike [QES149-04]	Dissolved Mercury (Hg)	2021/07/28		96	%	80 - 120
7485594	NHU	Spiked Blank	Dissolved Mercury (Hg)	2021/07/28		97	%	80 - 120
7485594	NHU	Method Blank	Dissolved Mercury (Hg)	2021/07/28	<0.013		ug/L	
7485594	NHU	RPD [QES148-04]	Dissolved Mercury (Hg)	2021/07/28	NC		%	20
7485924	BCD	Matrix Spike	Isobutylbenzene - Extractable	2021/07/28		101	%	70 - 130
			n-Dotriacontane - Extractable	2021/07/28		104	%	70 - 130
			>C10-C16 Hydrocarbons	2021/07/28		89	%	70 - 130
			>C16-C21 Hydrocarbons	2021/07/28		93	%	70 - 130
			>C21-<C32 Hydrocarbons	2021/07/28		82	%	70 - 130
7485924	BCD	Spiked Blank	Isobutylbenzene - Extractable	2021/07/28		96	%	70 - 130
			n-Dotriacontane - Extractable	2021/07/28		94	%	70 - 130
			>C10-C16 Hydrocarbons	2021/07/28		90	%	70 - 130
			>C16-C21 Hydrocarbons	2021/07/28		94	%	70 - 130
			>C21-<C32 Hydrocarbons	2021/07/28		88	%	70 - 130
7485924	BCD	Method Blank	Isobutylbenzene - Extractable	2021/07/28		98	%	70 - 130
			n-Dotriacontane - Extractable	2021/07/28		94	%	70 - 130
			>C10-C16 Hydrocarbons	2021/07/28	<0.050		mg/L	
			>C16-C21 Hydrocarbons	2021/07/28	<0.050		mg/L	
			>C21-<C32 Hydrocarbons	2021/07/28	<0.090		mg/L	
7485924	BCD	RPD	>C10-C16 Hydrocarbons	2021/07/28	NC		%	40
			>C16-C21 Hydrocarbons	2021/07/28	NC		%	40
			>C21-<C32 Hydrocarbons	2021/07/28	NC		%	40
7487462	THL	Matrix Spike	Isobutylbenzene - Volatile	2021/07/28		105 (1)	%	70 - 130
			Benzene	2021/07/28		92	%	70 - 130
			Toluene	2021/07/28		93	%	70 - 130
			Ethylbenzene	2021/07/28		98	%	70 - 130
			Total Xylenes	2021/07/28		97	%	70 - 130
7487462	THL	Spiked Blank	Isobutylbenzene - Volatile	2021/07/28		106	%	70 - 130
			Benzene	2021/07/28		96	%	70 - 130
			Toluene	2021/07/28		97	%	70 - 130
			Ethylbenzene	2021/07/28		103	%	70 - 130
			Total Xylenes	2021/07/28		103	%	70 - 130
7487462	THL	Method Blank	Isobutylbenzene - Volatile	2021/07/28		99	%	70 - 130
			Benzene	2021/07/28	<0.0010		mg/L	
			Toluene	2021/07/28	<0.0010		mg/L	
			Ethylbenzene	2021/07/28	<0.0010		mg/L	
			Total Xylenes	2021/07/28	<0.0020		mg/L	
			C6 - C10 (less BTEX)	2021/07/28	<0.090		mg/L	
7487462	THL	RPD	Benzene	2021/07/28	NC		%	40
			Toluene	2021/07/28	NC		%	40
			Ethylbenzene	2021/07/28	NC		%	40
			Total Xylenes	2021/07/28	NC		%	40
			C6 - C10 (less BTEX)	2021/07/28	NC		%	40
7487526	NGI	Matrix Spike [QES150-08]	Total Organic Carbon (C)	2021/07/29		96	%	85 - 115
7487526	NGI	Spiked Blank	Total Organic Carbon (C)	2021/07/29		98	%	80 - 120
7487526	NGI	Method Blank	Total Organic Carbon (C)	2021/07/29	<0.50		mg/L	
7487526	NGI	RPD [QES150-08]	Total Organic Carbon (C)	2021/07/29	4.0		%	15





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### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
	7487815	SHW	QC Standard	Turbidity	2021/07/28		103	%	80 - 120
	7487815	SHW	Spiked Blank	Turbidity	2021/07/28		105	%	80 - 120
	7487815	SHW	Method Blank	Turbidity	2021/07/28	<0.10		NTU	
	7487815	SHW	RPD [QES218-05]	Turbidity	2021/07/28	3.8		%	20
	7487858	EMT	Matrix Spike	Nitrogen (Ammonia Nitrogen)	2021/07/28		107	%	80 - 120
	7487858	EMT	Spiked Blank	Nitrogen (Ammonia Nitrogen)	2021/07/28		102	%	80 - 120
	7487858	EMT	Method Blank	Nitrogen (Ammonia Nitrogen)	2021/07/28	<0.050		mg/L	
	7487858	EMT	RPD	Nitrogen (Ammonia Nitrogen)	2021/07/28	0		%	20
	7487872	EMT	Matrix Spike	Nitrogen (Ammonia Nitrogen)	2021/07/29		NC	%	80 - 120
	7487872	EMT	Spiked Blank	Nitrogen (Ammonia Nitrogen)	2021/07/28		105	%	80 - 120
	7487872	EMT	Method Blank	Nitrogen (Ammonia Nitrogen)	2021/07/28	<0.050		mg/L	
	7487872	EMT	RPD	Nitrogen (Ammonia Nitrogen)	2021/07/29	2.0		%	20
	7488499	ABP	Matrix Spike	Total Cyanide (CN)	2021/07/28		91	%	80 - 120
	7488499	ABP	Spiked Blank	Total Cyanide (CN)	2021/07/28		94	%	80 - 120
	7488499	ABP	Method Blank	Total Cyanide (CN)	2021/07/28	<0.0050		mg/L	
	7488499	ABP	RPD	Total Cyanide (CN)	2021/07/28	NC		%	20
	7488500	ABP	Matrix Spike	WAD Cyanide (Free)	2021/07/28		95	%	80 - 120
	7488500	ABP	Spiked Blank	WAD Cyanide (Free)	2021/07/28		97	%	80 - 120
	7488500	ABP	Method Blank	WAD Cyanide (Free)	2021/07/28	<0.0010		mg/L	
	7488500	ABP	RPD	WAD Cyanide (Free)	2021/07/28	NC		%	20
	7488508	EMT	Matrix Spike	Total Alkalinity (Total as CaCO3)	2021/07/29		42 (2)	%	80 - 120
	7488508	EMT	Spiked Blank	Total Alkalinity (Total as CaCO3)	2021/07/29		111	%	80 - 120
	7488508	EMT	Method Blank	Total Alkalinity (Total as CaCO3)	2021/07/29	<5.0		mg/L	
	7488508	EMT	RPD	Total Alkalinity (Total as CaCO3)	2021/07/29	3.3		%	20
	7488526	EMT	Matrix Spike	Dissolved Chloride (Cl-)	2021/07/29		NC	%	80 - 120
	7488526	EMT	Spiked Blank	Dissolved Chloride (Cl-)	2021/07/29		101	%	80 - 120
	7488526	EMT	Method Blank	Dissolved Chloride (Cl-)	2021/07/29	<1.0		mg/L	
	7488526	EMT	RPD	Dissolved Chloride (Cl-)	2021/07/29	4.1		%	20
	7488530	EMT	Matrix Spike	Dissolved Sulphate (SO4)	2021/07/29		NC	%	80 - 120
	7488530	EMT	Spiked Blank	Dissolved Sulphate (SO4)	2021/07/29		102	%	80 - 120
	7488530	EMT	Method Blank	Dissolved Sulphate (SO4)	2021/07/29	<2.0		mg/L	
	7488530	EMT	RPD	Dissolved Sulphate (SO4)	2021/07/29	3.3		%	20
	7488537	EMT	Matrix Spike	Reactive Silica (SiO2)	2021/07/29		NC	%	80 - 120
	7488537	EMT	Spiked Blank	Reactive Silica (SiO2)	2021/07/29		95	%	80 - 120
	7488537	EMT	Method Blank	Reactive Silica (SiO2)	2021/07/29	<0.50		mg/L	
	7488537	EMT	RPD	Reactive Silica (SiO2)	2021/07/29	0.39		%	20
	7488545	EMT	Spiked Blank	Colour	2021/07/29		88	%	80 - 120
	7488545	EMT	Method Blank	Colour	2021/07/29	<5.0		TCU	
	7488545	EMT	RPD	Colour	2021/07/29	0.95		%	20
	7488547	EMT	Matrix Spike	Orthophosphate (P)	2021/07/29		0.0 (3)	%	80 - 120
	7488547	EMT	Spiked Blank	Orthophosphate (P)	2021/07/29		90	%	80 - 120
	7488547	EMT	Method Blank	Orthophosphate (P)	2021/07/29	<0.010		mg/L	
	7488547	EMT	RPD	Orthophosphate (P)	2021/07/29	3.6		%	20
	7488561	EMT	Matrix Spike	Nitrate + Nitrite (N)	2021/07/29		21 (4)	%	80 - 120
	7488561	EMT	Spiked Blank	Nitrate + Nitrite (N)	2021/07/29		91	%	80 - 120
	7488561	EMT	Method Blank	Nitrate + Nitrite (N)	2021/07/29	<0.050		mg/L	
	7488561	EMT	RPD	Nitrate + Nitrite (N)	2021/07/29	2.1		%	20
	7488567	EMT	Matrix Spike	Nitrite (N)	2021/07/29		43 (5)	%	80 - 120
	7488567	EMT	Spiked Blank	Nitrite (N)	2021/07/29		99	%	80 - 120
	7488567	EMT	Method Blank	Nitrite (N)	2021/07/29	<0.010		mg/L	
	7488567	EMT	RPD	Nitrite (N)	2021/07/29	NC		%	20
	7488570	EMT	Matrix Spike	Total Alkalinity (Total as CaCO3)	2021/07/29		NC	%	80 - 120
	7488570	EMT	Spiked Blank	Total Alkalinity (Total as CaCO3)	2021/07/29		108	%	80 - 120



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**QUALITY ASSURANCE REPORT(CONT'D)**

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7488570	EMT	Method Blank	Total Alkalinity (Total as CaCO3)	2021/07/29	<5.0		mg/L	
7488570	EMT	RPD	Total Alkalinity (Total as CaCO3)	2021/07/29	2.9		%	20
7488581	EMT	Matrix Spike	Dissolved Chloride (Cl-)	2021/07/29		90	%	80 - 120
7488581	EMT	Spiked Blank	Dissolved Chloride (Cl-)	2021/07/29		98	%	80 - 120
7488581	EMT	Method Blank	Dissolved Chloride (Cl-)	2021/07/29	<1.0		mg/L	
7488581	EMT	RPD	Dissolved Chloride (Cl-)	2021/07/29	1.7		%	20
7488585	EMT	Matrix Spike	Dissolved Sulphate (SO4)	2021/07/29		88	%	80 - 120
7488585	EMT	Spiked Blank	Dissolved Sulphate (SO4)	2021/07/29		98	%	80 - 120
7488585	EMT	Method Blank	Dissolved Sulphate (SO4)	2021/07/29	<2.0		mg/L	
7488585	EMT	RPD	Dissolved Sulphate (SO4)	2021/07/29	4.8		%	20
7488588	EMT	Matrix Spike	Reactive Silica (SiO2)	2021/07/29		NC	%	80 - 120
7488588	EMT	Spiked Blank	Reactive Silica (SiO2)	2021/07/29		97	%	80 - 120
7488588	EMT	Method Blank	Reactive Silica (SiO2)	2021/07/29	<0.50		mg/L	
7488588	EMT	RPD	Reactive Silica (SiO2)	2021/07/29	0.15		%	20
7488604	EMT	Spiked Blank	Colour	2021/07/29		88	%	80 - 120
7488604	EMT	Method Blank	Colour	2021/07/29	<5.0		TCU	
7488604	EMT	RPD	Colour	2021/07/29	NC		%	20
7488608	EMT	Matrix Spike	Orthophosphate (P)	2021/07/29		91	%	80 - 120
7488608	EMT	Spiked Blank	Orthophosphate (P)	2021/07/29		87	%	80 - 120
7488608	EMT	Method Blank	Orthophosphate (P)	2021/07/29	<0.010		mg/L	
7488608	EMT	RPD	Orthophosphate (P)	2021/07/29	NC		%	20
7488614	EMT	Matrix Spike	Nitrate + Nitrite (N)	2021/07/29		90	%	80 - 120
7488614	EMT	Spiked Blank	Nitrate + Nitrite (N)	2021/07/29		87	%	80 - 120
7488614	EMT	Method Blank	Nitrate + Nitrite (N)	2021/07/29	<0.050		mg/L	
7488614	EMT	RPD	Nitrate + Nitrite (N)	2021/07/29	1.9		%	20
7488618	EMT	Matrix Spike	Nitrite (N)	2021/07/29		84	%	80 - 120
7488618	EMT	Spiked Blank	Nitrite (N)	2021/07/29		102	%	80 - 120
7488618	EMT	Method Blank	Nitrite (N)	2021/07/29	<0.010		mg/L	
7488618	EMT	RPD	Nitrite (N)	2021/07/29	NC		%	20
7490075	SHW	Spiked Blank	Conductivity	2021/07/29		100	%	80 - 120
7490075	SHW	Method Blank	Conductivity	2021/07/29	<1.0		uS/cm	
7490075	SHW	RPD	Conductivity	2021/07/29	0.99		%	10
7490076	SHW	Spiked Blank	pH	2021/07/29		100	%	97 - 103
7490076	SHW	RPD	pH	2021/07/29	0.88		%	N/A
7490077	SHW	Spiked Blank	Conductivity	2021/07/29		100	%	80 - 120
7490077	SHW	Method Blank	Conductivity	2021/07/29	<1.0		uS/cm	
7490077	SHW	RPD [QES218-05]	Conductivity	2021/07/29	1.5		%	10
7490078	SHW	Spiked Blank	pH	2021/07/29		100	%	97 - 103
7490078	SHW	RPD [QES218-05]	pH	2021/07/29	0.21		%	N/A
7490154	EMT	Matrix Spike	Total Alkalinity (Total as CaCO3)	2021/07/29		98	%	80 - 120
7490154	EMT	Spiked Blank	Total Alkalinity (Total as CaCO3)	2021/07/29		103	%	80 - 120
7490154	EMT	Method Blank	Total Alkalinity (Total as CaCO3)	2021/07/29	<5.0		mg/L	
7490154	EMT	RPD	Total Alkalinity (Total as CaCO3)	2021/07/29	NC		%	20
7490155	EMT	Matrix Spike	Dissolved Chloride (Cl-)	2021/07/29		98	%	80 - 120
7490155	EMT	Spiked Blank	Dissolved Chloride (Cl-)	2021/07/29		98	%	80 - 120
7490155	EMT	Method Blank	Dissolved Chloride (Cl-)	2021/07/29	<1.0		mg/L	
7490155	EMT	RPD	Dissolved Chloride (Cl-)	2021/07/29	2.7		%	20
7490163	EMT	Matrix Spike	Dissolved Sulphate (SO4)	2021/07/29		98	%	80 - 120
7490163	EMT	Spiked Blank	Dissolved Sulphate (SO4)	2021/07/29		97	%	80 - 120
7490163	EMT	Method Blank	Dissolved Sulphate (SO4)	2021/07/29	<2.0		mg/L	
7490163	EMT	RPD	Dissolved Sulphate (SO4)	2021/07/29	3.7		%	20
7490167	EMT	Matrix Spike	Reactive Silica (SiO2)	2021/07/29		101	%	80 - 120
7490167	EMT	Spiked Blank	Reactive Silica (SiO2)	2021/07/29		99	%	80 - 120



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BV Labs Job #: C1K7983  
Report Date: 2021/08/04

Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: SN

### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7490167	EMT	Method Blank	Reactive Silica (SiO2)	2021/07/29	<0.50		mg/L	
7490167	EMT	RPD	Reactive Silica (SiO2)	2021/07/29	6.0		%	20
7490181	EMT	Spiked Blank	Colour	2021/07/29		109	%	80 - 120
7490181	EMT	Method Blank	Colour	2021/07/29	<5.0		TCU	
7490181	EMT	RPD	Colour	2021/07/29	3.3		%	20
7490182	NGI	Matrix Spike [QES219-10]	Dissolved Organic Carbon (C)	2021/07/30		94	%	85 - 115
7490182	NGI	Spiked Blank	Dissolved Organic Carbon (C)	2021/07/29		98	%	80 - 120
7490182	NGI	Method Blank	Dissolved Organic Carbon (C)	2021/07/29	<0.5		mg/L	
7490182	NGI	RPD [QES219-10]	Dissolved Organic Carbon (C)	2021/07/30	0.90		%	15
7490183	EMT	Matrix Spike	Orthophosphate (P)	2021/07/29		102	%	80 - 120
7490183	EMT	Spiked Blank	Orthophosphate (P)	2021/07/29		90	%	80 - 120
7490183	EMT	Method Blank	Orthophosphate (P)	2021/07/29	<0.010		mg/L	
7490183	EMT	RPD	Orthophosphate (P)	2021/07/29	1.4		%	20
7490186	EMT	Matrix Spike	Nitrate + Nitrite (N)	2021/07/29		92	%	80 - 120
7490186	EMT	Spiked Blank	Nitrate + Nitrite (N)	2021/07/29		92	%	80 - 120
7490186	EMT	Method Blank	Nitrate + Nitrite (N)	2021/07/29	<0.050		mg/L	
7490186	EMT	RPD	Nitrate + Nitrite (N)	2021/07/29	NC		%	20
7490187	EMT	Matrix Spike	Nitrite (N)	2021/07/29		82	%	80 - 120
7490187	EMT	Spiked Blank	Nitrite (N)	2021/07/29		100	%	80 - 120
7490187	EMT	Method Blank	Nitrite (N)	2021/07/29	<0.010		mg/L	
7490187	EMT	RPD	Nitrite (N)	2021/07/29	NC		%	20
7490710	EMT	Matrix Spike	Nitrogen (Ammonia Nitrogen)	2021/07/29		99	%	80 - 120
7490710	EMT	Spiked Blank	Nitrogen (Ammonia Nitrogen)	2021/07/29		108	%	80 - 120
7490710	EMT	Method Blank	Nitrogen (Ammonia Nitrogen)	2021/07/29	<0.050		mg/L	
7490710	EMT	RPD	Nitrogen (Ammonia Nitrogen)	2021/07/29	NC		%	20
7490947	BAN	Matrix Spike [QES218-06]	Dissolved Aluminum (Al)	2021/07/30		103	%	80 - 120
			Dissolved Antimony (Sb)	2021/07/30		104	%	80 - 120
			Dissolved Arsenic (As)	2021/07/30		98	%	80 - 120
			Dissolved Barium (Ba)	2021/07/30		100	%	80 - 120
			Dissolved Beryllium (Be)	2021/07/30		104	%	80 - 120
			Dissolved Bismuth (Bi)	2021/07/30		97	%	80 - 120
			Dissolved Boron (B)	2021/07/30		99	%	80 - 120
			Dissolved Cadmium (Cd)	2021/07/30		104	%	80 - 120
			Dissolved Calcium (Ca)	2021/07/30		NC	%	80 - 120
			Dissolved Chromium (Cr)	2021/07/30		99	%	80 - 120
			Dissolved Cobalt (Co)	2021/07/30		98	%	80 - 120
			Dissolved Copper (Cu)	2021/07/30		98	%	80 - 120
			Dissolved Iron (Fe)	2021/07/30		101	%	80 - 120
			Dissolved Lead (Pb)	2021/07/30		101	%	80 - 120
			Dissolved Magnesium (Mg)	2021/07/30		101	%	80 - 120
			Dissolved Manganese (Mn)	2021/07/30		NC	%	80 - 120
			Dissolved Molybdenum (Mo)	2021/07/30		106	%	80 - 120
			Dissolved Nickel (Ni)	2021/07/30		97	%	80 - 120
			Dissolved Phosphorus (P)	2021/07/30		106	%	80 - 120
			Dissolved Potassium (K)	2021/07/30		100	%	80 - 120
			Dissolved Selenium (Se)	2021/07/30		103	%	80 - 120
			Dissolved Silver (Ag)	2021/07/30		99	%	80 - 120
			Dissolved Sodium (Na)	2021/07/30		NC	%	80 - 120
			Dissolved Strontium (Sr)	2021/07/30		NC	%	80 - 120
			Dissolved Thallium (Tl)	2021/07/30		100	%	80 - 120
			Dissolved Tin (Sn)	2021/07/30		104	%	80 - 120
			Dissolved Titanium (Ti)	2021/07/30		104	%	80 - 120
			Dissolved Uranium (U)	2021/07/30		108	%	80 - 120



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VERITAS

BV Labs Job #: C1K7983  
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Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: SN

### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7490947	BAN	Spiked Blank	Dissolved Vanadium (V)	2021/07/30		103	%	80 - 120
			Dissolved Zinc (Zn)	2021/07/30		99	%	80 - 120
			Dissolved Aluminum (Al)	2021/07/29		88	%	80 - 120
			Dissolved Antimony (Sb)	2021/07/29		93	%	80 - 120
			Dissolved Arsenic (As)	2021/07/29		93	%	80 - 120
			Dissolved Barium (Ba)	2021/07/29		92	%	80 - 120
			Dissolved Beryllium (Be)	2021/07/29		85	%	80 - 120
			Dissolved Bismuth (Bi)	2021/07/29		94	%	80 - 120
			Dissolved Boron (B)	2021/07/29		80	%	80 - 120
			Dissolved Cadmium (Cd)	2021/07/29		85	%	80 - 120
			Dissolved Calcium (Ca)	2021/07/29		95	%	80 - 120
			Dissolved Chromium (Cr)	2021/07/29		98	%	80 - 120
			Dissolved Cobalt (Co)	2021/07/29		96	%	80 - 120
			Dissolved Copper (Cu)	2021/07/29		97	%	80 - 120
			Dissolved Iron (Fe)	2021/07/29		100	%	80 - 120
			Dissolved Lead (Pb)	2021/07/29		95	%	80 - 120
			Dissolved Magnesium (Mg)	2021/07/29		106	%	80 - 120
			Dissolved Manganese (Mn)	2021/07/29		97	%	80 - 120
			Dissolved Molybdenum (Mo)	2021/07/29		99	%	80 - 120
			Dissolved Nickel (Ni)	2021/07/29		97	%	80 - 120
			Dissolved Phosphorus (P)	2021/07/29		101	%	80 - 120
			Dissolved Potassium (K)	2021/07/29		96	%	80 - 120
			Dissolved Selenium (Se)	2021/07/29		99	%	80 - 120
			Dissolved Silver (Ag)	2021/07/29		94	%	80 - 120
			Dissolved Sodium (Na)	2021/07/29		100	%	80 - 120
			Dissolved Strontium (Sr)	2021/07/29		94	%	80 - 120
			Dissolved Thallium (Tl)	2021/07/29		95	%	80 - 120
Dissolved Tin (Sn)	2021/07/29		94	%	80 - 120			
Dissolved Titanium (Ti)	2021/07/29		101	%	80 - 120			
Dissolved Uranium (U)	2021/07/29		100	%	80 - 120			
Dissolved Vanadium (V)	2021/07/29		99	%	80 - 120			
Dissolved Zinc (Zn)	2021/07/29		99	%	80 - 120			
7490947	BAN	Method Blank	Dissolved Aluminum (Al)	2021/07/29	<5.0		ug/L	
			Dissolved Antimony (Sb)	2021/07/29	<1.0		ug/L	
			Dissolved Arsenic (As)	2021/07/29	<1.0		ug/L	
			Dissolved Barium (Ba)	2021/07/29	<1.0		ug/L	
			Dissolved Beryllium (Be)	2021/07/29	<1.0		ug/L	
			Dissolved Bismuth (Bi)	2021/07/29	<2.0		ug/L	
			Dissolved Boron (B)	2021/07/29	<50		ug/L	
			Dissolved Cadmium (Cd)	2021/07/29	<0.010		ug/L	
			Dissolved Calcium (Ca)	2021/07/29	<100		ug/L	
			Dissolved Chromium (Cr)	2021/07/29	<1.0		ug/L	
			Dissolved Cobalt (Co)	2021/07/29	<0.40		ug/L	
			Dissolved Copper (Cu)	2021/07/29	<0.50		ug/L	
			Dissolved Iron (Fe)	2021/07/29	<50		ug/L	
			Dissolved Lead (Pb)	2021/07/29	<0.50		ug/L	
			Dissolved Magnesium (Mg)	2021/07/29	<100		ug/L	
			Dissolved Manganese (Mn)	2021/07/29	<2.0		ug/L	
			Dissolved Molybdenum (Mo)	2021/07/29	<2.0		ug/L	
Dissolved Nickel (Ni)	2021/07/29	<2.0		ug/L				
Dissolved Phosphorus (P)	2021/07/29	<100		ug/L				
Dissolved Potassium (K)	2021/07/29	<100		ug/L				
Dissolved Selenium (Se)	2021/07/29	<0.50		ug/L				



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VERITAS

BV Labs Job #: C1K7983  
Report Date: 2021/08/04

Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: SN

### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Silver (Ag)	2021/07/29	<0.10		ug/L	
			Dissolved Sodium (Na)	2021/07/29	<100		ug/L	
			Dissolved Strontium (Sr)	2021/07/29	<2.0		ug/L	
			Dissolved Thallium (Tl)	2021/07/29	<0.10		ug/L	
			Dissolved Tin (Sn)	2021/07/29	<2.0		ug/L	
			Dissolved Titanium (Ti)	2021/07/29	<2.0		ug/L	
			Dissolved Uranium (U)	2021/07/29	<0.10		ug/L	
			Dissolved Vanadium (V)	2021/07/29	<2.0		ug/L	
			Dissolved Zinc (Zn)	2021/07/29	<5.0		ug/L	
7490947	BAN	RPD [QES218-06]	Dissolved Aluminum (Al)	2021/07/30	4.5		%	20
			Dissolved Antimony (Sb)	2021/07/30	NC		%	20
			Dissolved Arsenic (As)	2021/07/30	0.21		%	20
			Dissolved Barium (Ba)	2021/07/30	0.31		%	20
			Dissolved Beryllium (Be)	2021/07/30	NC		%	20
			Dissolved Bismuth (Bi)	2021/07/30	NC		%	20
			Dissolved Boron (B)	2021/07/30	NC		%	20
			Dissolved Cadmium (Cd)	2021/07/30	NC		%	20
			Dissolved Calcium (Ca)	2021/07/30	0.45		%	20
			Dissolved Chromium (Cr)	2021/07/30	NC		%	20
			Dissolved Cobalt (Co)	2021/07/30	NC		%	20
			Dissolved Copper (Cu)	2021/07/30	NC		%	20
			Dissolved Iron (Fe)	2021/07/30	NC		%	20
			Dissolved Lead (Pb)	2021/07/30	NC		%	20
			Dissolved Magnesium (Mg)	2021/07/30	0.16		%	20
			Dissolved Manganese (Mn)	2021/07/30	0.59		%	20
			Dissolved Molybdenum (Mo)	2021/07/30	6.8		%	20
			Dissolved Nickel (Ni)	2021/07/30	0.27		%	20
			Dissolved Phosphorus (P)	2021/07/30	NC		%	20
			Dissolved Potassium (K)	2021/07/30	0.014		%	20
			Dissolved Selenium (Se)	2021/07/30	NC		%	20
			Dissolved Silver (Ag)	2021/07/30	NC		%	20
			Dissolved Sodium (Na)	2021/07/30	0.29		%	20
			Dissolved Strontium (Sr)	2021/07/30	0.070		%	20
			Dissolved Thallium (Tl)	2021/07/30	NC		%	20
			Dissolved Tin (Sn)	2021/07/30	NC		%	20
			Dissolved Titanium (Ti)	2021/07/30	NC		%	20
			Dissolved Uranium (U)	2021/07/30	0.54		%	20
			Dissolved Vanadium (V)	2021/07/30	NC		%	20
			Dissolved Zinc (Zn)	2021/07/30	NC		%	20
7495954	FM0	Matrix Spike [QES154-13]	Dissolved Phosphorus (P)	2021/07/30		102	%	80 - 120
7495954	FM0	QC Standard	Dissolved Phosphorus (P)	2021/07/30		91	%	80 - 120
7495954	FM0	Spiked Blank	Dissolved Phosphorus (P)	2021/07/30		109	%	80 - 120
7495954	FM0	Method Blank	Dissolved Phosphorus (P)	2021/07/30	<0.0010		mg/L	
7495954	FM0	RPD [QES154-13]	Dissolved Phosphorus (P)	2021/07/30	0.14		%	20
7495955	FM0	Matrix Spike [QES155-13]	Dissolved Phosphorus (P)	2021/07/31		113	%	80 - 120
7495955	FM0	QC Standard	Dissolved Phosphorus (P)	2021/07/31		93	%	80 - 120
7495955	FM0	Spiked Blank	Dissolved Phosphorus (P)	2021/07/31		103	%	80 - 120
7495955	FM0	Method Blank	Dissolved Phosphorus (P)	2021/07/31	<0.0010		mg/L	
7495955	FM0	RPD [QES155-13]	Dissolved Phosphorus (P)	2021/07/31	17		%	20
7496869	NGI	Matrix Spike	Total Organic Carbon (C)	2021/08/03		99	%	85 - 115
7496869	NGI	Spiked Blank	Total Organic Carbon (C)	2021/08/03		101	%	80 - 120
7496869	NGI	Method Blank	Total Organic Carbon (C)	2021/08/03	<0.50		mg/L	
7496869	NGI	RPD	Total Organic Carbon (C)	2021/08/03	1.0		%	15



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VERITAS

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Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: SN

### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7496871	NGI	Matrix Spike	Dissolved Organic Carbon (C)	2021/08/04		98	%	85 - 115
7496871	NGI	Spiked Blank	Dissolved Organic Carbon (C)	2021/08/04		100	%	80 - 120
7496871	NGI	Method Blank	Dissolved Organic Carbon (C)	2021/08/04	<0.5		mg/L	
7496871	NGI	RPD	Dissolved Organic Carbon (C)	2021/08/04	0.60		%	15

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) VPH sample contained sediment.

(2) Poor spike recovery due to sample matrix.

(3) Poor spike recovery due to sample matrix, recovery confirmed with repeat analysis.

(4) Poor spike recovery due to sample matrix, recovery confirmed with repeat prep and analysis.

(5) Poor spike recovery due to sample matrix



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BV Labs Job #: C1K7983  
Report Date: 2021/08/04

Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: SN

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Anastassia Hamanov, Scientific Specialist

Colleen Acker, B.Sc, Scientific Service Specialist

Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

Eric Dearman, Scientific Specialist

Phil Deveau, Scientific Specialist (Organics)

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BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports.  
For Service Group specific validation please refer to the Validation Signature Page.



Your P.O. #: 0267  
Your Project #: GOLDBORO

**Attention: Derek Bullock**

Anaconda Mining Inc  
Goldboro Gold Mine  
570 Goldbrook Road  
Goldboro, NS  
Canada BOH 1L0

Your C.O.C. #: 848845-03-02, 848845-01-01, 848845-02-01, 848845-03-01

**Report Date: 2021/11/11**  
Report #: R6897037  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1V7201**

**Received: 2021/10/28, 09:05**

Sample Matrix: Water  
# Samples Received: 22

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Analytical Method</b>
Carbonate, Bicarbonate and Hydroxide	8	N/A	2021/11/02	N/A	SM 23 4500-CO2 D
Carbonate, Bicarbonate and Hydroxide	13	N/A	2021/11/03	N/A	SM 23 4500-CO2 D
Carbonate, Bicarbonate and Hydroxide	1	N/A	2021/11/04	N/A	SM 23 4500-CO2 D
Alkalinity	22	N/A	2021/11/08	ATL SOP 00013	EPA 310.2 R1974 m
Chloride	22	N/A	2021/11/08	ATL SOP 00014	SM 23 4500-Cl- E m
Chemical Oxygen Demand (COD)	22	2021/11/01	2021/11/02	ATL SOP 00042	SM 23 5220D m
Colour	22	N/A	2021/11/08	ATL SOP 00020	SM 23 2120C m
Free (WAD) Cyanide (1)	22	N/A	2021/11/03	CAM SOP-00457	OMOE E3015 m
Total Cyanide (1)	22	2021/11/03	2021/11/03	CAM SOP-00457	OMOE E3015 5 m
Organic carbon - Diss (DOC) (as rec'd) (2)	15	N/A	2021/11/01	ATL SOP 00203	SM 23 5310B m
Organic carbon - Diss (DOC) (as rec'd) (2)	7	N/A	2021/11/02	ATL SOP 00203	SM 23 5310B m
Conductance - water	8	N/A	2021/11/02	ATL SOP 00004	SM 23 2510B m
Conductance - water	13	N/A	2021/11/03	ATL SOP 00004	SM 23 2510B m
Conductance - water	1	N/A	2021/11/04	ATL SOP 00004	SM 23 2510B m
TEH in Water (PIRI)	22	2021/11/01	2021/11/01	ATL SOP 00113	Atl. RBCA v3.1 m
Hardness (calculated as CaCO3)	9	N/A	2021/11/03	ATL SOP 00048	Auto Calc
Hardness (calculated as CaCO3)	12	N/A	2021/11/04	ATL SOP 00048	Auto Calc
Hardness (calculated as CaCO3)	1	N/A	2021/11/05	ATL SOP 00048	Auto Calc
Mercury - Dissolved (CVAA,LL)	6	2021/11/03	2021/11/03	ATL SOP 00026	EPA 245.1 R3 m
Mercury - Dissolved (CVAA,LL)	16	2021/11/04	2021/11/04	ATL SOP 00026	EPA 245.1 R3 m
Mercury - Total (CVAA,LL)	22	2021/11/03	2021/11/03	ATL SOP 00026	EPA 245.1 R3 m
Metals Water Diss. MS (as rec'd)	5	N/A	2021/11/02	ATL SOP 00058	EPA 6020B R2 m
Metals Water Diss. MS (as rec'd)	16	N/A	2021/11/03	ATL SOP 00058	EPA 6020B R2 m
Metals Water Diss. MS (as rec'd)	1	N/A	2021/11/04	ATL SOP 00058	EPA 6020B R2 m
Ion Balance (% Difference)	22	N/A	2021/11/09	N/A	Auto Calc.
Anion and Cation Sum	20	N/A	2021/11/04	N/A	Auto Calc.
Anion and Cation Sum	1	N/A	2021/11/05	N/A	Auto Calc.





Your P.O. #: 0267  
Your Project #: GOLDBORO

**Attention: Derek Bullock**

Anaconda Mining Inc  
Goldboro Gold Mine  
570 Goldbrook Road  
Goldboro, NS  
Canada BOH 1L0

Your C.O.C. #: 848845-03-02, 848845-01-01, 848845-02-01, 848845-03-01

**Report Date: 2021/11/11**  
Report #: R6897037  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1V7201**

**Received: 2021/10/28, 09:05**

Sample Matrix: Water  
# Samples Received: 22

Analyses	Date		Laboratory Method	Analytical Method
	Quantity	Extracted		
Anion and Cation Sum	1	N/A	2021/11/09 N/A	Auto Calc.
Nitrogen Ammonia - water	1	N/A	2021/11/03 ATL SOP 00015	EPA 350.1 R2 m
Nitrogen Ammonia - water	20	N/A	2021/11/04 ATL SOP 00015	EPA 350.1 R2 m
Nitrogen Ammonia - water	1	N/A	2021/11/08 ATL SOP 00015	EPA 350.1 R2 m
Nitrogen - Nitrate + Nitrite	22	N/A	2021/11/08 ATL SOP 00016	USGS I-2547-11m
Nitrogen - Nitrite	22	N/A	2021/11/08 ATL SOP 00017	SM 23 4500-NO2- B m
Nitrogen - Nitrate (as N)	22	N/A	2021/11/09 ATL SOP 00018	ASTM D3867-16
pH (3)	8	N/A	2021/11/02 ATL SOP 00003	SM 23 4500-H+ B m
pH (3)	13	N/A	2021/11/03 ATL SOP 00003	SM 23 4500-H+ B m
pH (3)	1	N/A	2021/11/04 ATL SOP 00003	SM 23 4500-H+ B m
Phosphorus - ortho	22	N/A	2021/11/08 ATL SOP 00021	SM 23 4500-P E m
Sat. pH and Langelier Index (@ 20C)	22	N/A	2021/11/09 ATL SOP 00049	Auto Calc.
Sat. pH and Langelier Index (@ 4C)	22	N/A	2021/11/09 ATL SOP 00049	Auto Calc.
Reactive Silica	22	N/A	2021/11/08 ATL SOP 00022	EPA 366.0 m
Sulphate	22	N/A	2021/11/08 ATL SOP 00023	ASTM D516-16 m
Total Dissolved Solids (TDS calc)	22	N/A	2021/11/09 N/A	Auto Calc.
Organic carbon - Total (TOC) (4)	17	N/A	2021/11/02 ATL SOP 00203	SM 23 5310B m
Organic carbon - Total (TOC) (4)	5	N/A	2021/11/03 ATL SOP 00203	SM 23 5310B m
Dissolved Phosphorus (1)	22	2021/11/10	2021/11/10 CAM SOP-00407	SM 23 4500 P B H m
ModTPH (T1) Calc. for Water	22	N/A	2021/11/02 N/A	Atl. RBCA v3 m
Phosphorus Total Colourimetry	22	2021/11/01	2021/11/02 ATL SOP 00057	EPA 365.1 R2 m
Total Suspended Solids	22	2021/11/02	2021/11/04 ATL SOP 00007	SM 23 2540D m
Turbidity	8	N/A	2021/11/02 ATL SOP 00011	EPA 180.1 R2 m
Turbidity	14	N/A	2021/11/03 ATL SOP 00011	EPA 180.1 R2 m
VPH in Water (PIRI)	22	N/A	2021/11/01 ATL SOP 00130	Atl. RBCA v3.1 m

**Remarks:**

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau



Your P.O. #: 0267  
Your Project #: GOLDBORO

**Attention: Derek Bullock**

Anaconda Mining Inc  
Goldboro Gold Mine  
570 Goldbrook Road  
Goldboro, NS  
Canada BOH 1L0

Your C.O.C. #: 848845-03-02, 848845-01-01, 848845-02-01, 848845-03-01

**Report Date: 2021/11/11**  
Report #: R6897037  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1V7201**

**Received: 2021/10/28, 09:05**

Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd, Mississauga, ON, L5N 2L8

(2) TOC / DOC present in the sample should be considered as non-purgeable TOC / DOC

(3) The APHA Standard Method require pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the APHA Standard Method holding time.

(4) TOC / DOC present in the sample should be considered as non-purgeable TOC / DOC.



Your P.O. #: 0267  
Your Project #: GOLDBORO

**Attention: Derek Bullock**

Anaconda Mining Inc  
Goldboro Gold Mine  
570 Goldbrook Road  
Goldboro, NS  
Canada BOH 1L0

Your C.O.C. #: 848845-03-02, 848845-01-01, 848845-02-01, 848845-03-01

**Report Date: 2021/11/11**  
Report #: R6897037  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1V7201**

**Received: 2021/10/28, 09:05**

Encryption Key



Bureau Veritas

11 Nov 2021 15:40:27

Please direct all questions regarding this Certificate of Analysis to your Project Manager.  
Atena Georgescu, Project Manager II  
Email: Atena.Georgescu@bureauveritas.com  
Phone# (902)420-0203 Ext:239

=====  
This report has been generated and distributed using a secure automated process.  
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



**RESULTS OF ANALYSES OF WATER**

Bureau Veritas ID		RBU235			RBU236		RBU238		
Sampling Date		2021/10/27 13:55			2021/10/27 14:15		2021/10/27 14:30		
COC Number		848845-01-01			848845-01-01		848845-01-01		
	UNITS	MW15-A	RDL	QC Batch	MW15-B	RDL	MW20-A	RDL	QC Batch
<b>Calculated Parameters</b>									
Anion Sum	me/L	1.70	N/A	7668952	4.20	N/A	0.950	N/A	7668366
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	73	1.0	7668946	170	1.0	28	1.0	7668361
Calculated TDS	mg/L	140	1.0	7668966	240	1.0	70	1.0	7668374
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	7668946	<1.0	1.0	<1.0	1.0	7668361
Cation Sum	me/L	2.91	N/A	7668952	3.95	N/A	1.15	N/A	7668366
Hardness (CaCO3)	mg/L	43	1.0	7668948	130	1.0	11	1.0	7668363
Ion Balance (% Difference)	%	26.3	N/A	7668951	3.07	N/A	9.52	N/A	7668364
Langelier Index (@ 20C)	N/A	-1.89		7668960	0.244		-2.74		7668370
Langelier Index (@ 4C)	N/A	-2.14		7668963	-0.00600		-2.99		7668372
Nitrate (N)	mg/L	<0.050	0.050	7668955	<0.050	0.050	<0.050	0.050	7668367
Saturation pH (@ 20C)	N/A	8.40		7668960	7.55		9.41		7668370
Saturation pH (@ 4C)	N/A	8.66		7668963	7.80		9.67		7668372
<b>Inorganics</b>									
Total Alkalinity (Total as CaCO3)	mg/L	73	5.0	7682571	170	25	28	5.0	7682571
Total Chemical Oxygen Demand	mg/L	160	20	7672978	<20	20	39	20	7672978
Dissolved Chloride (Cl-)	mg/L	8.6	1.0	7682609	7.1	1.0	12	1.0	7682609
Colour	TCU	550	150	7682614	<5.0	5.0	7.7	5.0	7682614
Nitrate + Nitrite (N)	mg/L	<0.050	0.050	7682617	<0.050	0.050	<0.050	0.050	7682617
Nitrite (N)	mg/L	<0.010	0.010	7682618	0.012	0.010	0.037	0.010	7682618
Nitrogen (Ammonia Nitrogen)	mg/L	0.31	0.050	7677000	0.12	0.050	0.060	0.050	7677000
Dissolved Organic Carbon (C)	mg/L	50 (1)	5	7672162	8.3	0.5	1.4	0.5	7672162
Total Organic Carbon (C)	mg/L	52 (1)	5.0	7672884	2.5	0.50	2.2	0.50	7674377
Orthophosphate (P)	mg/L	0.023	0.010	7682615	0.14	0.010	<0.010	0.010	7682615
pH	pH	6.52		7674322	7.79		6.68		7674322
Dissolved Phosphorus	mg/L	<0.020	0.020	7691720	0.026	0.020	0.023	0.020	7691720
Total Phosphorus	mg/L	0.063	0.020	7672209	0.095	0.020	1.5	0.040	7672209
Reactive Silica (SiO2)	mg/L	12	0.50	7682613	19	0.50	10	0.50	7682613
Total Suspended Solids	mg/L	50	2.5	7674832	15	1.0	430	5.0	7674832
Dissolved Sulphate (SO4)	mg/L	<2.0	2.0	7682611	29	2.0	2.1	2.0	7682611
Total Cyanide (CN)	mg/L	<0.0050	0.0050	7677386	<0.0050	0.0050	0.032	0.0050	7677386
Turbidity	NTU	22	0.10	7674497	13	0.10	640	1.0	7674497
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	7677389	<0.0010	0.0010	<0.0010	0.0010	7677389
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable (1) Elevated reporting limit due to sample matrix.									



Bureau Veritas Job #: C1V7201  
 Report Date: 2021/11/11

Anaconda Mining Inc  
 Client Project #: GOLDBORO  
 Your P.O. #: 0267  
 Sampler Initials: JV

**RESULTS OF ANALYSES OF WATER**

Bureau Veritas ID		RBU235			RBU236		RBU238		
Sampling Date		2021/10/27 13:55			2021/10/27 14:15		2021/10/27 14:30		
COC Number		848845-01-01			848845-01-01		848845-01-01		
	UNITS	MW15-A	RDL	QC Batch	MW15-B	RDL	MW20-A	RDL	QC Batch
Conductivity	uS/cm	170	1.0	7674321	370	1.0	91	1.0	7674321
RDL = Reportable Detection Limit QC Batch = Quality Control Batch									



BUREAU  
VERITAS

Bureau Veritas Job #: C1V7201  
Report Date: 2021/11/11

Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: JV

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		RBU239			RBU241			RBU242		
Sampling Date		2021/10/27 14:45			2021/10/26			2021/10/26		
COC Number		848845-01-01			848845-01-01			848845-01-01		
	UNITS	MW20-B	RDL	QC Batch	MW5-A	RDL	QC Batch	MW5-B	RDL	QC Batch
<b>Calculated Parameters</b>										
Anion Sum	me/L	2.63	N/A	7668366	1.59	N/A	7668366	1.37	N/A	7668366
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	120	1.0	7668361	65	1.0	7668361	58	1.0	7668946
Calculated TDS	mg/L	140	1.0	7668374	100	1.0	7668374	86	1.0	7668374
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	7668361	<1.0	1.0	7668361	<1.0	1.0	7668946
Cation Sum	me/L	2.56	N/A	7668366	1.70	N/A	7668366	1.32	N/A	7668366
Hardness (CaCO3)	mg/L	100	1.0	7668363	44	1.0	7668363	46	1.0	7668363
Ion Balance (% Difference)	%	1.35	N/A	7668364	3.34	N/A	7668364	1.86	N/A	7668951
Langelier Index (@ 20C)	N/A	0.139		7668370	-1.36		7668370	-1.40		7668958
Langelier Index (@ 4C)	N/A	-0.111		7668372	-1.61		7668372	-1.65		7668372
Nitrate (N)	mg/L	<0.050	0.050	7668367	<0.050	0.050	7668367	<0.050	0.050	7668954
Saturation pH (@ 20C)	N/A	7.77		7668370	8.35		7668370	8.39		7668958
Saturation pH (@ 4C)	N/A	8.02		7668372	8.60		7668372	8.64		7668372
<b>Inorganics</b>										
Total Alkalinity (Total as CaCO3)	mg/L	120	25	7682571	65	5.0	7682571	58	5.0	7682571
Total Chemical Oxygen Demand	mg/L	<20	20	7672978	42	20	7672978	<20	20	7672978
Dissolved Chloride (Cl-)	mg/L	5.5	1.0	7682609	8.4	1.0	7682609	7.4	1.0	7682609
Colour	TCU	7.5	5.0	7682614	140	25	7682614	67	25	7682614
Nitrate + Nitrite (N)	mg/L	<0.050	0.050	7682617	<0.050	0.050	7682617	<0.050	0.050	7682617
Nitrite (N)	mg/L	<0.010	0.010	7682618	<0.010	0.010	7682618	<0.010	0.010	7682618
Nitrogen (Ammonia Nitrogen)	mg/L	<0.050	0.050	7677000	0.056	0.050	7677000	0.064	0.050	7686178
Dissolved Organic Carbon (C)	mg/L	2.1	0.5	7672162	14	0.5	7672162	6.4	0.5	7672162
Total Organic Carbon (C)	mg/L	<0.50	0.50	7674377	14	0.50	7674821	6.8	0.50	7674364
Orthophosphate (P)	mg/L	0.012	0.010	7682615	<0.010	0.010	7682615	<0.010	0.010	7682615
pH	pH	7.91		7674322	6.99		7676923	6.99		7676925
Dissolved Phosphorus	mg/L	0.023	0.020	7691720	0.027	0.020	7691720	0.023	0.020	7691646
Total Phosphorus	mg/L	<0.020	0.020	7672209	0.14	0.020	7672209	0.020	0.020	7672209
Reactive Silica (SiO2)	mg/L	12	0.50	7682613	14	0.50	7682613	15	0.50	7682613
Total Suspended Solids	mg/L	12	1.0	7674832	68	5.0	7674508	14	2.0	7674508
Dissolved Sulphate (SO4)	mg/L	<2.0	2.0	7682611	2.1	2.0	7682611	<2.0	2.0	7682611
Total Cyanide (CN)	mg/L	<0.0050	0.0050	7677386	<0.0050	0.0050	7677386	<0.0050	0.0050	7677386
Turbidity	NTU	2.1	0.10	7674497	57	0.10	7677012	9.4	0.10	7677012
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	7677389	<0.0010	0.0010	7677389	<0.0010	0.0010	7677389
Conductivity	uS/cm	230	1.0	7674321	130	1.0	7676921	120	1.0	7676924
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable										



BUREAU  
VERITAS

Bureau Veritas Job #: C1V7201  
Report Date: 2021/11/11

Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: JV

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		RBU243			RBU244			RBU245		
Sampling Date		2021/10/27 10:30			2021/10/27 10:05			2021/10/27 13:25		
COC Number		848845-01-01			848845-01-01			848845-02-01		
	UNITS	MW6-A	RDL	QC Batch	MW6-B	RDL	QC Batch	MW7-A	RDL	QC Batch

Calculated Parameters										
Anion Sum	me/L	0.440	N/A	7668952	2.76	N/A	7668952	0.460	N/A	7668952
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	9.0	1.0	7668946	120	1.0	7668946	9.9	1.0	7668946
Calculated TDS	mg/L	34	1.0	7668964	160	1.0	7668966	33	1.0	7668964
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	7668946	3.0	1.0	7668946	<1.0	1.0	7668946
Cation Sum	me/L	0.530	N/A	7668952	2.66	N/A	7668952	0.380	N/A	7668952
Hardness (CaCO3)	mg/L	10	1.0	7668363	12	1.0	7668363	3.3	1.0	7668363
Ion Balance (% Difference)	%	9.28	N/A	7668951	1.85	N/A	7668951	9.52	N/A	7668951
Langelier Index (@ 20C)	N/A	-4.37		7668960	-0.270		7668960	-4.65		7668960
Langelier Index (@ 4C)	N/A	-4.62		7668961	-0.521		7668963	-4.90		7668963
Nitrate (N)	mg/L	0.078	0.050	7668955	<0.050	0.050	7668954	0.063	0.050	7668955
Saturation pH (@ 20C)	N/A	10.0		7668960	8.71		7668960	10.5		7668960
Saturation pH (@ 4C)	N/A	10.3		7668961	8.96		7668963	10.8		7668963

Inorganics										
Total Alkalinity (Total as CaCO3)	mg/L	9.0	5.0	7682571	120	25	7682571	9.9	5.0	7682571
Total Chemical Oxygen Demand	mg/L	32	20	7672978	28	20	7672978	<20	20	7672978
Dissolved Chloride (Cl-)	mg/L	7.0	1.0	7682609	7.3	1.0	7682609	6.6	1.0	7682609
Colour	TCU	<5.0	5.0	7682614	12	5.0	7682614	<5.0	5.0	7682614
Nitrate + Nitrite (N)	mg/L	0.078	0.050	7682617	<0.050	0.050	7682617	0.074	0.050	7682617
Nitrite (N)	mg/L	<0.010	0.010	7682618	<0.010	0.010	7682618	0.011	0.010	7682618
Nitrogen (Ammonia Nitrogen)	mg/L	0.055	0.050	7677000	0.10	0.050	7677000	<0.050	0.050	7677000
Dissolved Organic Carbon (C)	mg/L	1.7	0.5	7672162	3.5	0.5	7672162	1.1	0.5	7672162
Total Organic Carbon (C)	mg/L	<5.0 (1)	5.0	7674377	<5.0 (1)	5.0	7674377	4.8	0.50	7674364
Orthophosphate (P)	mg/L	<0.010	0.010	7682615	0.015	0.010	7682615	<0.010	0.010	7682615
pH	pH	5.66		7676925	8.44		7676925	5.85		7679686
Dissolved Phosphorus	mg/L	<0.020	0.020	7691720	<0.020	0.020	7691720	<0.020	0.020	7691720
Total Phosphorus	mg/L	2.0	0.10	7672209	0.14	0.020	7672209	0.073	0.020	7672209
Reactive Silica (SiO2)	mg/L	6.6	0.50	7682613	8.3	0.50	7682613	8.2	0.50	7682613
Total Suspended Solids	mg/L	4000	100	7674832	130	5.0	7674832	620	10	7674832
Dissolved Sulphate (SO4)	mg/L	2.7	2.0	7682611	8.4	2.0	7682611	3.4	2.0	7682611
Total Cyanide (CN)	mg/L	<0.0050	0.0050	7677386	<0.0050	0.0050	7677386	<0.0050	0.0050	7677386
Turbidity	NTU	500	1.0	7677012	67	0.10	7677012	220	1.0	7677012
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	7677389	<0.0010	0.0010	7677389	<0.0010	0.0010	7677389

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 N/A = Not Applicable  
 (1) Elevated reporting limit due to turbidity.



BUREAU  
VERITAS

Bureau Veritas Job #: C1V7201  
Report Date: 2021/11/11

Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: JV

### RESULTS OF ANALYSES OF WATER

<b>Bureau Veritas ID</b>		RBU243			RBU244			RBU245		
<b>Sampling Date</b>		2021/10/27 10:30			2021/10/27 10:05			2021/10/27 13:25		
<b>COC Number</b>		848845-01-01			848845-01-01			848845-02-01		
	<b>UNITS</b>	<b>MW6-A</b>	<b>RDL</b>	<b>QC Batch</b>	<b>MW6-B</b>	<b>RDL</b>	<b>QC Batch</b>	<b>MW7-A</b>	<b>RDL</b>	<b>QC Batch</b>
Conductivity	uS/cm	43	1.0	7676924	250	1.0	7676924	43	1.0	7679685

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch





BUREAU  
VERITAS

Bureau Veritas Job #: C1V7201  
Report Date: 2021/11/11

Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: JV

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		RBU246			RBU247			RBU248		
Sampling Date		2021/10/27 13:00			2021/10/27			2021/10/27		
COC Number		848845-02-01			848845-02-01			848845-02-01		
	UNITS	MW7-B	RDL	QC Batch	MWA	RDL	QC Batch	MWB	RDL	QC Batch

Calculated Parameters										
Anion Sum	me/L	3.22	N/A	7668952	2.65	N/A	7668952	0.460	N/A	7668952
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	130	1.0	7668946	100	1.0	7668946	10	1.0	7668946
Calculated TDS	mg/L	190	1.0	7668966	150	1.0	7668966	33	1.0	7668966
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.3	1.0	7668946	1.6	1.0	7668946	<1.0	1.0	7668946
Cation Sum	me/L	3.56	N/A	7668952	2.32	N/A	7668952	0.370	N/A	7668952
Hardness (CaCO3)	mg/L	120	1.0	7668363	28	1.0	7668363	3.4	1.0	7668363
Ion Balance (% Difference)	%	5.01	N/A	7668951	6.64	N/A	7668951	10.8	N/A	7668951
Langelier Index (@ 20C)	N/A	0.332		7668960	-0.163		7668960	-4.57		7668960
Langelier Index (@ 4C)	N/A	0.0820		7668963	-0.414		7668963	-4.82		7668963
Nitrate (N)	mg/L	<0.050	0.050	7668955	<0.050	0.050	7668955	<0.050	0.050	7668955
Saturation pH (@ 20C)	N/A	7.71		7668960	8.40		7668960	10.5		7668960
Saturation pH (@ 4C)	N/A	7.96		7668963	8.65		7668963	10.7		7668963
Inorganics										
Total Alkalinity (Total as CaCO3)	mg/L	130	25	7682571	100	10	7682571	10	5.0	7682571
Total Chemical Oxygen Demand	mg/L	<20	20	7672978	<20	20	7672978	<20	20	7672988
Dissolved Chloride (Cl-)	mg/L	11	1.0	7682609	14	1.0	7682609	6.6	1.0	7682609
Colour	TCU	<5.0	5.0	7682614	13	5.0	7682614	<5.0	5.0	7682614
Nitrate + Nitrite (N)	mg/L	<0.050	0.050	7682617	<0.050	0.050	7682617	0.069	0.050	7682617
Nitrite (N)	mg/L	<0.010	0.010	7682618	<0.010	0.010	7682618	0.038	0.010	7682618
Nitrogen (Ammonia Nitrogen)	mg/L	0.056	0.050	7677001	0.13	0.050	7677001	<0.050	0.050	7674432
Dissolved Organic Carbon (C)	mg/L	12 (1)	5	7672162	2.8	0.5	7672162	0.9	0.5	7672162
Total Organic Carbon (C)	mg/L	3.5	0.50	7674364	3.2	0.50	7674821	4.9	0.50	7674821
Orthophosphate (P)	mg/L	<0.010	0.010	7682615	0.019	0.010	7682615	<0.010	0.010	7682615
pH	pH	8.04		7676925	8.24		7676925	5.90		7676925
Dissolved Phosphorus	mg/L	<0.020	0.020	7691720	0.032	0.020	7691720	<0.020	0.020	7691720
Total Phosphorus	mg/L	<0.020	0.020	7672209	0.22	0.020	7672209	0.18	0.020	7672209
Reactive Silica (SiO2)	mg/L	13	0.50	7682613	8.7	0.50	7682613	8.1	0.50	7682613
Total Suspended Solids	mg/L	12	2.0	7674832	88	10	7674832	600	100	7674832
Dissolved Sulphate (SO4)	mg/L	17	2.0	7682611	9.7	2.0	7682611	3.5	2.0	7682611
Total Cyanide (CN)	mg/L	<0.0050	0.0050	7677386	<0.0050	0.0050	7677386	<0.0050	0.0050	7677386
Turbidity	NTU	14	0.10	7677012	83	0.10	7677012	98	0.10	7677012
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	7677389	<0.0010	0.0010	7677389	<0.0010	0.0010	7677389

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

N/A = Not Applicable

(1) Elevated reporting limit due to sample matrix.



BUREAU  
VERITAS

Bureau Veritas Job #: C1V7201  
Report Date: 2021/11/11

Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: JV

### RESULTS OF ANALYSES OF WATER

<b>Bureau Veritas ID</b>		RBU246			RBU247			RBU248		
<b>Sampling Date</b>		2021/10/27 13:00			2021/10/27			2021/10/27		
<b>COC Number</b>		848845-02-01			848845-02-01			848845-02-01		
	<b>UNITS</b>	<b>MW7-B</b>	<b>RDL</b>	<b>QC Batch</b>	<b>MWA</b>	<b>RDL</b>	<b>QC Batch</b>	<b>MWB</b>	<b>RDL</b>	<b>QC Batch</b>
Conductivity	uS/cm	300	1.0	7676924	230	1.0	7676924	44	1.0	7676924

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch



BUREAU  
VERITAS

Bureau Veritas Job #: C1V7201  
Report Date: 2021/11/11

Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: JV

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		RBU250			RBU251			RBU252		
Sampling Date		2021/10/27 11:50			2021/10/27 11:35			2021/10/27 12:05		
COC Number		848845-02-01			848845-02-01			848845-02-01		
	UNITS	MW26-A	RDL	QC Batch	MW26-B	RDL	QC Batch	MW46-A	RDL	QC Batch

Calculated Parameters										
Anion Sum	me/L	1.00	N/A	7668952	2.55	N/A	7668952	0.810	N/A	7668952
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	35	1.0	7668946	97	1.0	7668946	22	1.0	7668946
Calculated TDS	mg/L	65	1.0	7668966	140	1.0	7668966	57	1.0	7668966
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	7668946	1.3	1.0	7668946	<1.0	1.0	7668946
Cation Sum	me/L	0.830	N/A	7668952	2.29	N/A	7668952	0.760	N/A	7668952
Hardness (CaCO3)	mg/L	24	1.0	7668363	27	1.0	7668363	17	1.0	7668363
Ion Balance (% Difference)	%	9.29	N/A	7668951	5.37	N/A	7668951	3.18	N/A	7668951
Langelier Index (@ 20C)	N/A	-2.40		7668960	-0.291		7668960	-2.89		7668960
Langelier Index (@ 4C)	N/A	-2.65		7668963	-0.541		7668963	-3.15		7668963
Nitrate (N)	mg/L	<0.050	0.050	7668955	<0.050	0.050	7668955	<0.050	0.050	7668955
Saturation pH (@ 20C)	N/A	8.91		7668960	8.43		7668960	9.28		7668960
Saturation pH (@ 4C)	N/A	9.17		7668963	8.68		7668963	9.53		7668963
Inorganics										
Total Alkalinity (Total as CaCO3)	mg/L	36	5.0	7682636	98 (1)	10	7682636	22	5.0	7682636
Total Chemical Oxygen Demand	mg/L	21	20	7672988	<20	20	7672988	<20	20	7672988
Dissolved Chloride (Cl-)	mg/L	7.4	1.0	7682638	14	1.0	7682638	8.7	1.0	7682638
Colour	TCU	<5.0	5.0	7682644	14	5.0	7682644	<5.0	5.0	7682644
Nitrate + Nitrite (N)	mg/L	<0.050	0.050	7682648	<0.050	0.050	7682648	<0.050	0.050	7682648
Nitrite (N)	mg/L	0.011	0.010	7682649	0.036	0.010	7682649	0.010	0.010	7682649
Nitrogen (Ammonia Nitrogen)	mg/L	0.064	0.050	7677001	0.14	0.050	7677001	<0.050	0.050	7677001
Dissolved Organic Carbon (C)	mg/L	0.6	0.5	7672162	2.9	0.5	7672162	1.1	0.5	7672162
Total Organic Carbon (C)	mg/L	0.60	0.50	7674364	5.5	0.50	7674821	2.5	0.50	7674364
Orthophosphate (P)	mg/L	<0.010	0.010	7682647	0.019	0.010	7682647	<0.010	0.010	7682647
pH	pH	6.52		7676925	8.14		7676925	6.39		7676925
Dissolved Phosphorus	mg/L	0.020	0.020	7691720	0.035	0.020	7691720	<0.020	0.020	7691720
Total Phosphorus	mg/L	1.0	0.040	7672209	0.20	0.020	7672209	0.086	0.020	7672209
Reactive Silica (SiO2)	mg/L	14	0.50	7682642	8.7	0.50	7682642	13	0.50	7682642
Total Suspended Solids	mg/L	140	5.0	7674832	86	5.0	7674832	260	10	7674832
Dissolved Sulphate (SO4)	mg/L	3.8	2.0	7682640	9.7	2.0	7682640	5.6	2.0	7682640
Total Cyanide (CN)	mg/L	<0.0050	0.0050	7677386	<0.0050	0.0050	7677386	<0.0050	0.0050	7677386
Turbidity	NTU	280	1.0	7677012	98	0.10	7677012	180	1.0	7677012
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	7677389	<0.0010	0.0010	7677389	<0.0010	0.0010	7677389

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 N/A = Not Applicable  
 (1) Elevated reporting limit due to sample matrix.



BUREAU  
VERITAS

Bureau Veritas Job #: C1V7201  
Report Date: 2021/11/11

Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: JV

### RESULTS OF ANALYSES OF WATER

<b>Bureau Veritas ID</b>		RBU250			RBU251			RBU252		
<b>Sampling Date</b>		2021/10/27 11:50			2021/10/27 11:35			2021/10/27 12:05		
<b>COC Number</b>		848845-02-01			848845-02-01			848845-02-01		
	<b>UNITS</b>	<b>MW26-A</b>	<b>RDL</b>	<b>QC Batch</b>	<b>MW26-B</b>	<b>RDL</b>	<b>QC Batch</b>	<b>MW46-A</b>	<b>RDL</b>	<b>QC Batch</b>
Conductivity	uS/cm	87	1.0	7676924	230	1.0	7676924	77	1.0	7676924

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch



BUREAU  
VERITAS

Bureau Veritas Job #: C1V7201  
Report Date: 2021/11/11

Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: JV

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		RBU253			RBU254			RBU255		
Sampling Date		2021/10/27 12:30			2021/10/27 10:50			2021/10/27 11:10		
COC Number		848845-02-01			848845-02-01			848845-03-01		
	UNITS	MW46-B	RDL	QC Batch	MW30-A	RDL	QC Batch	MW30-B	RDL	QC Batch

Calculated Parameters										
Anion Sum	me/L	16.6	N/A	7668952	0.430	N/A	7668952	3.27	N/A	7668952
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	160	1.0	7668946	9.4	1.0	7668946	100	1.0	7668946
Calculated TDS	mg/L	1100	1.0	7668966	30	1.0	7668966	190	1.0	7668966
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.1	1.0	7668946	<1.0	1.0	7668946	<1.0	1.0	7668946
Cation Sum	me/L	17.4	N/A	7668952	0.420	N/A	7668952	3.04	N/A	7668952
Hardness (CaCO3)	mg/L	95	1.0	7668363	4.0	1.0	7668363	58	1.0	7668948
Ion Balance (% Difference)	%	2.35	N/A	7668951	1.18	N/A	7668951	3.65	N/A	7668951
Langelier Index (@ 20C)	N/A	-0.0170		7668960	-4.14		7668960	-0.230		7668960
Langelier Index (@ 4C)	N/A	-0.262		7668963	-4.40		7668963	-0.480		7668963
Nitrate (N)	mg/L	<0.050	0.050	7668955	<0.050	0.050	7668955	<0.050	0.050	7668955
Saturation pH (@ 20C)	N/A	7.86		7668960	10.4		7668960	8.07		7668960
Saturation pH (@ 4C)	N/A	8.10		7668963	10.6		7668963	8.32		7668963

Inorganics										
Total Alkalinity (Total as CaCO3)	mg/L	160	25	7682636	9.4	5.0	7682694	100	10	7682636
Total Chemical Oxygen Demand	mg/L	370	20	7672988	<20	20	7672988	28	20	7672988
Dissolved Chloride (Cl-)	mg/L	110	5.0	7682638	6.0	1.0	7682742	13	1.0	7682638
Colour	TCU	22	5.0	7682644	7.4	5.0	7682752	5.3	5.0	7682644
Nitrate + Nitrite (N)	mg/L	<0.050	0.050	7682648	<0.050	0.050	7682757	<0.050	0.050	7682648
Nitrite (N)	mg/L	0.012	0.010	7682649	<0.010	0.010	7682768	0.019	0.010	7682649
Nitrogen (Ammonia Nitrogen)	mg/L	0.16	0.050	7677001	<0.050	0.050	7677001	0.063	0.050	7677001
Dissolved Organic Carbon (C)	mg/L	77 (1)	5	7672162	2.2	0.5	7672162	5.5	0.5	7672162
Total Organic Carbon (C)	mg/L	93 (2)	5.0	7674377	1.8	0.50	7674364	5.5	0.50	7674821
Orthophosphate (P)	mg/L	0.12	0.010	7682647	<0.010	0.010	7682755	<0.010	0.010	7682647
pH	pH	7.84		7676925	6.24		7676925	7.84		7676925
Dissolved Phosphorus	mg/L	<0.020	0.020	7691720	0.022	0.020	7691646	<0.020	0.020	7691720
Total Phosphorus	mg/L	0.35	0.020	7672209	0.023	0.020	7672209	0.23	0.020	7672209
Reactive Silica (SiO2)	mg/L	10	0.50	7682642	5.0	0.50	7682750	11	0.50	7682642
Total Suspended Solids	mg/L	390	10	7674832	24	1.0	7674832	48	2.0	7674832
Dissolved Sulphate (SO4)	mg/L	490	10	7682640	3.5	2.0	7682748	39	2.0	7682640
Total Cyanide (CN)	mg/L	<0.0050	0.0050	7677386	<0.0050	0.0050	7677386	<0.0050	0.0050	7677386
Turbidity	NTU	420	1.0	7677012	8.8	0.10	7677013	30	0.10	7677013

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

N/A = Not Applicable

(1) Elevated reporting limit due to sample matrix.

(2) Elevated reporting limit due to turbidity.



BUREAU  
VERITAS

Bureau Veritas Job #: C1V7201  
Report Date: 2021/11/11

Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: JV

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		RBU253			RBU254			RBU255		
Sampling Date		2021/10/27 12:30			2021/10/27 10:50			2021/10/27 11:10		
COC Number		848845-02-01			848845-02-01			848845-03-01		
	UNITS	MW46-B	RDL	QC Batch	MW30-A	RDL	QC Batch	MW30-B	RDL	QC Batch
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	7677389	<0.0010	0.0010	7677389	<0.0010	0.0010	7677389
Conductivity	uS/cm	1800	1.0	7676924	43	1.0	7676924	310	1.0	7676924
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										



BUREAU  
VERITAS

Bureau Veritas Job #: C1V7201  
Report Date: 2021/11/11

Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: JV

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		RBU256			RBU257			RBU258		
Sampling Date		2021/10/27 09:55			2021/10/27 09:30			2021/10/27 15:50		
COC Number		848845-03-01			848845-03-01			848845-03-01		
	UNITS	MW42-A	RDL	QC Batch	MW42-B	RDL	QC Batch	MW43-A	RDL	QC Batch

Calculated Parameters										
Anion Sum	me/L	1.23	N/A	7668952	2.62	N/A	7668952	3.04	N/A	7668952
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	46	1.0	7668946	100	1.0	7668946	110	1.0	7668946
Calculated TDS	mg/L	73	1.0	7668966	150	1.0	7668966	170	1.0	7668966
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	7668946	<1.0	1.0	7668946	<1.0	1.0	7668946
Cation Sum	me/L	1.06	N/A	7668952	2.49	N/A	7668952	2.64	N/A	7668952
Hardness (CaCO3)	mg/L	14	1.0	7668948	61	1.0	7668948	45	1.0	7668948
Ion Balance (% Difference)	%	7.42	N/A	7668951	2.54	N/A	7668951	7.04	N/A	7668951
Langelier Index (@ 20C)	N/A	-2.05		7668960	-0.126		7668960	-0.842		7668960
Langelier Index (@ 4C)	N/A	-2.30		7668963	-0.377		7668963	-1.09		7668963
Nitrate (N)	mg/L	<0.050	0.050	7668955	<0.050	0.050	7668955	<0.050	0.050	7668955
Saturation pH (@ 20C)	N/A	9.08		7668960	8.06		7668960	8.14		7668960
Saturation pH (@ 4C)	N/A	9.33		7668963	8.31		7668963	8.39		7668963
Inorganics										
Total Alkalinity (Total as CaCO3)	mg/L	46	5.0	7682636	100	25	7686152	110	25	7682636
Total Chemical Oxygen Demand	mg/L	25	20	7672988	39	20	7672988	<20	20	7672988
Dissolved Chloride (Cl-)	mg/L	6.1	1.0	7682638	11	1.0	7686158	15	1.0	7682638
Colour	TCU	<5.0	5.0	7682644	14	5.0	7686164	<5.0	5.0	7682644
Nitrate + Nitrite (N)	mg/L	<0.050	0.050	7682648	<0.050	0.050	7686169	<0.050	0.050	7682648
Nitrite (N)	mg/L	0.031	0.010	7682649	<0.010	0.010	7686171	0.019	0.010	7682649
Nitrogen (Ammonia Nitrogen)	mg/L	0.087	0.050	7677001	0.092	0.050	7677001	1.3	0.050	7677001
Dissolved Organic Carbon (C)	mg/L	1.4	0.5	7672162	8 (1)	5	7672162	3.9	0.5	7672162
Total Organic Carbon (C)	mg/L	0.80	0.50	7672884	5.4	0.50	7674364	3.7	0.50	7672884
Orthophosphate (P)	mg/L	<0.010	0.010	7682647	<0.010	0.010	7686165	<0.010	0.010	7682647
pH	pH	7.03		7674322	7.93		7674322	7.30		7674322
Dissolved Phosphorus	mg/L	<0.020	0.020	7691720	<0.020	0.020	7691720	<0.020	0.020	7691720
Total Phosphorus	mg/L	1.5	0.040	7672211	0.10	0.020	7672211	0.026	0.020	7672211
Reactive Silica (SiO2)	mg/L	7.3	0.50	7682642	8.7	0.50	7686161	11	0.50	7682642
Total Suspended Solids	mg/L	80	5.0	7675543	83	5.0	7675543	590	17	7675543
Dissolved Sulphate (SO4)	mg/L	6.5	2.0	7682640	13	2.0	7686160	19	2.0	7682640
Total Cyanide (CN)	mg/L	<0.0050	0.0050	7677386	<0.0050	0.0050	7677386	<0.0050	0.0050	7677428
Turbidity	NTU	85	0.10	7674497	160	1.0	7674497	11	0.10	7674497
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	7677389	<0.0010	0.0010	7677389	<0.0010	0.0010	7677429

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 N/A = Not Applicable  
 (1) Elevated reporting limit due to sample matrix.



BUREAU  
VERITAS

Bureau Veritas Job #: C1V7201  
Report Date: 2021/11/11

Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: JV

### RESULTS OF ANALYSES OF WATER

<b>Bureau Veritas ID</b>		RBU256			RBU257			RBU258		
<b>Sampling Date</b>		2021/10/27 09:55			2021/10/27 09:30			2021/10/27 15:50		
<b>COC Number</b>		848845-03-01			848845-03-01			848845-03-01		
	<b>UNITS</b>	<b>MW42-A</b>	<b>RDL</b>	<b>QC Batch</b>	<b>MW42-B</b>	<b>RDL</b>	<b>QC Batch</b>	<b>MW43-A</b>	<b>RDL</b>	<b>QC Batch</b>
Conductivity	uS/cm	110	1.0	7674321	240	1.0	7674321	270	1.0	7674321

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch





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### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		RBU259		
Sampling Date		2021/10/27 15:30		
COC Number		848845-03-01		
	UNITS	MW43-B	RDL	QC Batch
<b>Calculated Parameters</b>				
Anion Sum	me/L	2.13	N/A	7668952
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	89	1.0	7668946
Calculated TDS	mg/L	120	1.0	7668966
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	7668946
Cation Sum	me/L	1.79	N/A	7668952
Hardness (CaCO3)	mg/L	62	1.0	7668948
Ion Balance (% Difference)	%	8.67	N/A	7668951
Langelier Index (@ 20C)	N/A	-0.678		7668960
Langelier Index (@ 4C)	N/A	-0.929		7668963
Nitrate (N)	mg/L	<0.050	0.050	7668955
Saturation pH (@ 20C)	N/A	8.09		7668960
Saturation pH (@ 4C)	N/A	8.35		7668963
<b>Inorganics</b>				
Total Alkalinity (Total as CaCO3)	mg/L	90	5.0	7682636
Total Chemical Oxygen Demand	mg/L	<20	20	7672988
Dissolved Chloride (Cl-)	mg/L	7.9	1.0	7682638
Colour	TCU	<5.0	5.0	7682644
Nitrate + Nitrite (N)	mg/L	<0.050	0.050	7682648
Nitrite (N)	mg/L	<0.010	0.010	7682649
Nitrogen (Ammonia Nitrogen)	mg/L	<0.050	0.050	7677001
Dissolved Organic Carbon (C)	mg/L	2.6	0.5	7672162
Total Organic Carbon (C)	mg/L	0.78	0.50	7674364
Orthophosphate (P)	mg/L	<0.010	0.010	7682647
pH	pH	7.42		7674322
Dissolved Phosphorus	mg/L	0.021	0.020	7691720
Total Phosphorus	mg/L	0.026	0.020	7672211
Reactive Silica (SiO2)	mg/L	15	0.50	7682642
Total Suspended Solids	mg/L	32	1.3	7675543
Dissolved Sulphate (SO4)	mg/L	5.5	2.0	7682640
Total Cyanide (CN)	mg/L	<0.0050	0.0050	7677428
Turbidity	NTU	20	0.10	7674497
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	7677429
Conductivity	uS/cm	180	1.0	7674321
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable				



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### MERCURY BY COLD VAPOUR AA (WATER)

Bureau Veritas ID		RBU235	RBU236	RBU238	RBU239	RBU241	RBU242		
Sampling Date		2021/10/27 13:55	2021/10/27 14:15	2021/10/27 14:30	2021/10/27 14:45	2021/10/26	2021/10/26		
COC Number		848845-01-01	848845-01-01	848845-01-01	848845-01-01	848845-01-01	848845-01-01		
	UNITS	MW15-A	MW15-B	MW20-A	MW20-B	MW5-A	MW5-B	RDL	QC Batch

Metals									
Dissolved Mercury (Hg)	ug/L	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	0.013	7675111
Total Mercury (Hg)	ug/L	<0.013	<0.013	0.013	<0.013	<0.013	<0.013	0.013	7674642
RDL = Reportable Detection Limit QC Batch = Quality Control Batch									

Bureau Veritas ID		RBU243	RBU244	RBU245	RBU246	RBU247	RBU248		
Sampling Date		2021/10/27 10:30	2021/10/27 10:05	2021/10/27 13:25	2021/10/27 13:00	2021/10/27	2021/10/27		
COC Number		848845-01-01	848845-01-01	848845-02-01	848845-02-01	848845-02-01	848845-02-01		
	UNITS	MW6-A	MW6-B	MW7-A	MW7-B	MWA	MWB	RDL	QC Batch

Metals									
Dissolved Mercury (Hg)	ug/L	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	0.013	7677408
Total Mercury (Hg)	ug/L	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	0.013	7674642
RDL = Reportable Detection Limit QC Batch = Quality Control Batch									

Bureau Veritas ID		RBU250	RBU251	RBU252	RBU253		RBU254		
Sampling Date		2021/10/27 11:50	2021/10/27 11:35	2021/10/27 12:05	2021/10/27 12:30		2021/10/27 10:50		
COC Number		848845-02-01	848845-02-01	848845-02-01	848845-02-01		848845-02-01		
	UNITS	MW26-A	MW26-B	MW46-A	MW46-B	QC Batch	MW30-A	RDL	QC Batch

Metals									
Dissolved Mercury (Hg)	ug/L	<0.013	<0.013	<0.013	<0.013	7677408	<0.013	0.013	7677408
Total Mercury (Hg)	ug/L	<0.013	<0.013	0.033	<0.013	7674642	<0.013	0.013	7674866
RDL = Reportable Detection Limit QC Batch = Quality Control Batch									

Bureau Veritas ID		RBU255	RBU256	RBU257	RBU258	RBU259		
Sampling Date		2021/10/27 11:10	2021/10/27 09:55	2021/10/27 09:30	2021/10/27 15:50	2021/10/27 15:30		
COC Number		848845-03-01	848845-03-01	848845-03-01	848845-03-01	848845-03-01		
	UNITS	MW30-B	MW42-A	MW42-B	MW43-A	MW43-B	RDL	QC Batch

Metals									
Dissolved Mercury (Hg)	ug/L	<0.013	<0.013	<0.013	<0.013	<0.013	0.013	7677408	
Total Mercury (Hg)	ug/L	<0.013	<0.013	<0.013	<0.013	<0.013	0.013	7674866	
RDL = Reportable Detection Limit QC Batch = Quality Control Batch									



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Sampler Initials: JV

### ELEMENTS BY ICP/MS (WATER)

Bureau Veritas ID		RBU235		RBU236		RBU238	RBU239		
Sampling Date		2021/10/27 13:55		2021/10/27 14:15		2021/10/27 14:30	2021/10/27 14:45		
COC Number		848845-01-01		848845-01-01		848845-01-01	848845-01-01		
	UNITS	MW15-A	RDL	MW15-B	RDL	MW20-A	MW20-B	RDL	QC Batch
<b>Metals</b>									
Dissolved Aluminum (Al)	ug/L	90	5.0	28	5.0	19	8.7	5.0	7674661
Dissolved Antimony (Sb)	ug/L	<1.0	1.0	<1.0	1.0	<1.0	<1.0	1.0	7674661
Dissolved Arsenic (As)	ug/L	15	1.0	500	10	13	66	1.0	7674661
Dissolved Barium (Ba)	ug/L	24	1.0	17	1.0	16	13	1.0	7674661
Dissolved Beryllium (Be)	ug/L	<0.10	0.10	<0.10	0.10	<0.10	<0.10	0.10	7674661
Dissolved Bismuth (Bi)	ug/L	<2.0	2.0	<2.0	2.0	<2.0	<2.0	2.0	7674661
Dissolved Boron (B)	ug/L	<50	50	<50	50	<50	<50	50	7674661
Dissolved Cadmium (Cd)	ug/L	<0.010	0.010	<0.010	0.010	0.016	<0.010	0.010	7674661
Dissolved Calcium (Ca)	ug/L	12000	100	42000	100	2900	32000	100	7674661
Dissolved Chromium (Cr)	ug/L	1.8	1.0	<1.0	1.0	<1.0	<1.0	1.0	7674661
Dissolved Cobalt (Co)	ug/L	2.6	0.40	<0.40	0.40	4.3	0.40	0.40	7674661
Dissolved Copper (Cu)	ug/L	<0.50	0.50	<0.50	0.50	1.0	<0.50	0.50	7674661
Dissolved Iron (Fe)	ug/L	27000	50	<50	50	12000	<50	50	7674661
Dissolved Lead (Pb)	ug/L	<0.50	0.50	<0.50	0.50	<0.50	<0.50	0.50	7674661
Dissolved Magnesium (Mg)	ug/L	2900	100	5400	100	930	5000	100	7674661
Dissolved Manganese (Mn)	ug/L	1100	2.0	550	2.0	250	140	2.0	7674661
Dissolved Molybdenum (Mo)	ug/L	6.9	2.0	5.1	2.0	14	<2.0	2.0	7674661
Dissolved Nickel (Ni)	ug/L	7.8	2.0	5.3	2.0	24	<2.0	2.0	7674661
Dissolved Phosphorus (P)	ug/L	<100	100	<100	100	<100	<100	100	7674661
Dissolved Potassium (K)	ug/L	4500	100	4400	100	1500	2100	100	7674661
Dissolved Selenium (Se)	ug/L	<0.50	0.50	<0.50	0.50	<0.50	<0.50	0.50	7674661
Dissolved Silver (Ag)	ug/L	<0.10	0.10	<0.10	0.10	<0.10	<0.10	0.10	7674661
Dissolved Sodium (Na)	ug/L	22000	100	29000	100	10000	12000	100	7674661
Dissolved Strontium (Sr)	ug/L	52	2.0	640	2.0	28	410	2.0	7674661
Dissolved Thallium (Tl)	ug/L	<0.10	0.10	<0.10	0.10	<0.10	<0.10	0.10	7674661
Dissolved Tin (Sn)	ug/L	<2.0	2.0	<2.0	2.0	<2.0	<2.0	2.0	7674661
Dissolved Titanium (Ti)	ug/L	3.0	2.0	<2.0	2.0	<2.0	<2.0	2.0	7674661
Dissolved Uranium (U)	ug/L	0.12	0.10	3.7	0.10	<0.10	1.8	0.10	7674661
Dissolved Vanadium (V)	ug/L	<2.0	2.0	<2.0	2.0	<2.0	<2.0	2.0	7674661
Dissolved Zinc (Zn)	ug/L	14	5.0	12	5.0	20	6.7	5.0	7674661
RDL = Reportable Detection Limit									
QC Batch = Quality Control Batch									

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## ELEMENTS BY ICP/MS (WATER)

Bureau Veritas ID		RBU241	RBU242	RBU243	RBU244	RBU245		
Sampling Date		2021/10/26	2021/10/26	2021/10/27 10:30	2021/10/27 10:05	2021/10/27 13:25		
COC Number		848845-01-01	848845-01-01	848845-01-01	848845-01-01	848845-02-01		
	UNITS	MW5-A	MW5-B	MW6-A	MW6-B	MW7-A	RDL	QC Batch
<b>Metals</b>								
Dissolved Aluminum (Al)	ug/L	89	130	1500	140	100	5.0	7675431
Dissolved Antimony (Sb)	ug/L	<1.0	<1.0	<1.0	3.2	<1.0	1.0	7675431
Dissolved Arsenic (As)	ug/L	3.1	<1.0	5.3	39	<1.0	1.0	7675431
Dissolved Barium (Ba)	ug/L	30	16	29	2.9	13	1.0	7675431
Dissolved Beryllium (Be)	ug/L	<0.10	<0.10	0.13	<0.10	<0.10	0.10	7675431
Dissolved Bismuth (Bi)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	7675431
Dissolved Boron (B)	ug/L	<50	<50	<50	140	<50	50	7675431
Dissolved Cadmium (Cd)	ug/L	<0.010	<0.010	0.058	<0.010	0.018	0.010	7675431
Dissolved Calcium (Ca)	ug/L	15000	15000	2000	4000	620	100	7675431
Dissolved Chromium (Cr)	ug/L	2.2	<1.0	3.7	<1.0	<1.0	1.0	7675431
Dissolved Cobalt (Co)	ug/L	1.3	3.0	5.8	<0.40	9.9	0.40	7675431
Dissolved Copper (Cu)	ug/L	<0.50	<0.50	29	0.52	26	0.50	7675431
Dissolved Iron (Fe)	ug/L	7000	1400	2300	53	190	50	7675431
Dissolved Lead (Pb)	ug/L	0.77	<0.50	7.6	<0.50	<0.50	0.50	7675431
Dissolved Magnesium (Mg)	ug/L	1600	1800	1200	510	430	100	7675431
Dissolved Manganese (Mn)	ug/L	300	120	91	8.3	140	2.0	7675431
Dissolved Molybdenum (Mo)	ug/L	10	<2.0	<2.0	2.5	<2.0	2.0	7675431
Dissolved Nickel (Ni)	ug/L	5.4	4.2	22	<2.0	5.0	2.0	7675431
Dissolved Phosphorus (P)	ug/L	<100	<100	130	<100	<100	100	7675431
Dissolved Potassium (K)	ug/L	3700	2400	1400	2900	1100	100	7675431
Dissolved Selenium (Se)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7675431
Dissolved Silver (Ag)	ug/L	<0.10	<0.10	<0.10	<0.10	0.11	0.10	7675431
Dissolved Sodium (Na)	ug/L	11000	6800	4700	54000	6400	100	7675431
Dissolved Strontium (Sr)	ug/L	56	53	11	60	8.5	2.0	7675431
Dissolved Thallium (Tl)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7675431
Dissolved Tin (Sn)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	7675431
Dissolved Titanium (Ti)	ug/L	3.7	3.4	81	3.6	<2.0	2.0	7675431
Dissolved Uranium (U)	ug/L	0.44	0.32	<0.10	1.2	<0.10	0.10	7675431
Dissolved Vanadium (V)	ug/L	<2.0	<2.0	2.2	<2.0	<2.0	2.0	7675431
Dissolved Zinc (Zn)	ug/L	9.6	<5.0	49	<5.0	47	5.0	7675431
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								



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Sampler Initials: JV

### ELEMENTS BY ICP/MS (WATER)

Bureau Veritas ID		RBU246	RBU247	RBU248	RBU250	RBU251	RBU252		
Sampling Date		2021/10/27 13:00	2021/10/27	2021/10/27	2021/10/27 11:50	2021/10/27 11:35	2021/10/27 12:05		
COC Number		848845-02-01	848845-02-01	848845-02-01	848845-02-01	848845-02-01	848845-02-01		
	UNITS	MW7-B	MWA	MWB	MW26-A	MW26-B	MW46-A	RDL	QC Batch

Metals									
Dissolved Aluminum (Al)	ug/L	45	140	99	28	230	30	5.0	7677462
Dissolved Antimony (Sb)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7677462
Dissolved Arsenic (As)	ug/L	43	180	<1.0	12	180	3.4	1.0	7677462
Dissolved Barium (Ba)	ug/L	21	3.4	13	10	4.8	7.6	1.0	7677462
Dissolved Beryllium (Be)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7677462
Dissolved Bismuth (Bi)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	7677462
Dissolved Boron (B)	ug/L	<50	230	<50	<50	230	<50	50	7677462
Dissolved Cadmium (Cd)	ug/L	0.012	<0.010	0.023	0.11	<0.010	0.032	0.010	7677462
Dissolved Calcium (Ca)	ug/L	38000	9100	670	7200	8800	4800	100	7677462
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7677462
Dissolved Cobalt (Co)	ug/L	<0.40	<0.40	10	9.5	<0.40	1.8	0.40	7677462
Dissolved Copper (Cu)	ug/L	0.64	0.65	28	2.1	13	1.5	0.50	7677462
Dissolved Iron (Fe)	ug/L	<50	96	190	<50	230	620	50	7677462
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	<0.50	<0.50	1.1	<0.50	0.50	7677462
Dissolved Magnesium (Mg)	ug/L	5500	1200	430	1500	1200	1100	100	7677462
Dissolved Manganese (Mn)	ug/L	460	69	130	940	71	68	2.0	7677462
Dissolved Molybdenum (Mo)	ug/L	2.7	17	<2.0	<2.0	17	<2.0	2.0	7677462
Dissolved Nickel (Ni)	ug/L	2.8	<2.0	5.5	15	<2.0	15	2.0	7677462
Dissolved Phosphorus (P)	ug/L	<100	<100	<100	<100	<100	<100	100	7677462
Dissolved Potassium (K)	ug/L	2300	4300	1000	2100	4400	1500	100	7677462
Dissolved Selenium (Se)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7677462
Dissolved Silver (Ag)	ug/L	<0.10	<0.10	0.13	<0.10	<0.10	<0.10	0.10	7677462
Dissolved Sodium (Na)	ug/L	27000	38000	6200	6700	37000	8400	100	7677462
Dissolved Strontium (Sr)	ug/L	880	100	7.9	39	98	26	2.0	7677462
Dissolved Thallium (Tl)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7677462
Dissolved Tin (Sn)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	7677462
Dissolved Titanium (Ti)	ug/L	2.7	5.3	<2.0	2.5	11	3.9	2.0	7677462
Dissolved Uranium (U)	ug/L	4.0	1.8	<0.10	<0.10	1.7	<0.10	0.10	7677462
Dissolved Vanadium (V)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	7677462
Dissolved Zinc (Zn)	ug/L	8.5	<5.0	47	17	6.4	9.2	5.0	7677462

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch



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Your P.O. #: 0267  
Sampler Initials: JV

### ELEMENTS BY ICP/MS (WATER)

Bureau Veritas ID		RBU253		RBU254	RBU255		RBU256	RBU257		
Sampling Date		2021/10/27 12:30		2021/10/27 10:50	2021/10/27 11:10		2021/10/27 09:55	2021/10/27 09:30		
COC Number		848845-02-01		848845-02-01	848845-03-01		848845-03-01	848845-03-01		
	UNITS	MW46-B	RDL	MW30-A	MW30-B	QC Batch	MW42-A	MW42-B	RDL	QC Batch

Metals										
Dissolved Aluminum (Al)	ug/L	290	50	59	110	7677462	55	67	5.0	7674661
Dissolved Antimony (Sb)	ug/L	<1.0	1.0	<1.0	<1.0	7677462	<1.0	<1.0	1.0	7674661
Dissolved Arsenic (As)	ug/L	16	1.0	<1.0	10	7677462	<1.0	15	1.0	7674661
Dissolved Barium (Ba)	ug/L	20	1.0	8.0	15	7677462	10	6.4	1.0	7674661
Dissolved Beryllium (Be)	ug/L	<0.10	0.10	<0.10	<0.10	7677462	<0.10	<0.10	0.10	7674661
Dissolved Bismuth (Bi)	ug/L	<2.0	2.0	<2.0	<2.0	7677462	<2.0	<2.0	2.0	7674661
Dissolved Boron (B)	ug/L	69	50	<50	<50	7677462	<50	<50	50	7674661
Dissolved Cadmium (Cd)	ug/L	0.010	0.010	0.018	<0.010	7677462	0.033	<0.010	0.010	7674661
Dissolved Calcium (Ca)	ug/L	31000	100	870	20000	7677462	3900	20000	100	7674661
Dissolved Chromium (Cr)	ug/L	<1.0	1.0	<1.0	<1.0	7677462	<1.0	<1.0	1.0	7674661
Dissolved Cobalt (Co)	ug/L	0.61	0.40	8.1	<0.40	7677462	14	<0.40	0.40	7674661
Dissolved Copper (Cu)	ug/L	7.6	0.50	4.9	1.4	7677462	25	1.5	0.50	7674661
Dissolved Iron (Fe)	ug/L	370	50	2900	<50	7677462	1700	<50	50	7674661
Dissolved Lead (Pb)	ug/L	<0.50	0.50	<0.50	<0.50	7677462	<0.50	<0.50	0.50	7674661
Dissolved Magnesium (Mg)	ug/L	4100	100	440	1900	7677462	1000	2700	100	7674661
Dissolved Manganese (Mn)	ug/L	180	2.0	230	180	7677462	1200	47	2.0	7674661
Dissolved Molybdenum (Mo)	ug/L	38	2.0	<2.0	3.9	7677462	15	5.0	2.0	7674661
Dissolved Nickel (Ni)	ug/L	3.9	2.0	10	3.2	7677462	42	<2.0	2.0	7674661
Dissolved Phosphorus (P)	ug/L	<100	100	<100	<100	7677462	<100	<100	100	7674661
Dissolved Potassium (K)	ug/L	5800	100	860	4500	7677462	2100	6800	100	7674661
Dissolved Selenium (Se)	ug/L	1.1	0.50	<0.50	<0.50	7677462	<0.50	<0.50	0.50	7674661
Dissolved Silver (Ag)	ug/L	<0.10	0.10	<0.10	<0.10	7677462	<0.10	<0.10	0.10	7674661
Dissolved Sodium (Na)	ug/L	350000	100	4900	41000	7677462	15000	25000	100	7674661
Dissolved Strontium (Sr)	ug/L	360	2.0	8.6	150	7677462	37	290	2.0	7674661
Dissolved Thallium (Tl)	ug/L	<0.10	0.10	<0.10	<0.10	7677462	<0.10	<0.10	0.10	7674661
Dissolved Tin (Sn)	ug/L	<2.0	2.0	<2.0	<2.0	7677462	<2.0	<2.0	2.0	7674661
Dissolved Titanium (Ti)	ug/L	20	2.0	<2.0	2.6	7677462	3.2	<2.0	2.0	7674661
Dissolved Uranium (U)	ug/L	33	0.10	<0.10	3.4	7677462	0.11	1.7	0.10	7674661
Dissolved Vanadium (V)	ug/L	<2.0	2.0	<2.0	<2.0	7677462	<2.0	<2.0	2.0	7674661
Dissolved Zinc (Zn)	ug/L	<5.0	5.0	10	<5.0	7677462	75	<5.0	5.0	7674661

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch



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Bureau Veritas Job #: C1V7201  
Report Date: 2021/11/11

Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: JV

### ELEMENTS BY ICP/MS (WATER)

Bureau Veritas ID		RBU258		RBU259		
Sampling Date		2021/10/27 15:50		2021/10/27 15:30		
COC Number		848845-03-01		848845-03-01		
	UNITS	MW43-A	QC Batch	MW43-B	RDL	QC Batch
<b>Metals</b>						
Dissolved Aluminum (Al)	ug/L	54	7674661	9.9	5.0	7677462
Dissolved Antimony (Sb)	ug/L	<1.0	7674661	<1.0	1.0	7677462
Dissolved Arsenic (As)	ug/L	<1.0	7674661	<1.0	1.0	7677462
Dissolved Barium (Ba)	ug/L	14	7674661	7.0	1.0	7677462
Dissolved Beryllium (Be)	ug/L	<0.10	7674661	<0.10	0.10	7677462
Dissolved Bismuth (Bi)	ug/L	<2.0	7674661	<2.0	2.0	7677462
Dissolved Boron (B)	ug/L	<50	7674661	<50	50	7677462
Dissolved Cadmium (Cd)	ug/L	0.029	7674661	0.017	0.010	7677462
Dissolved Calcium (Ca)	ug/L	16000	7674661	20000	100	7677462
Dissolved Chromium (Cr)	ug/L	<1.0	7674661	<1.0	1.0	7677462
Dissolved Cobalt (Co)	ug/L	4.5	7674661	0.78	0.40	7677462
Dissolved Copper (Cu)	ug/L	0.65	7674661	1.1	0.50	7677462
Dissolved Iron (Fe)	ug/L	160	7674661	<50	50	7677462
Dissolved Lead (Pb)	ug/L	<0.50	7674661	<0.50	0.50	7677462
Dissolved Magnesium (Mg)	ug/L	1600	7674661	2900	100	7677462
Dissolved Manganese (Mn)	ug/L	400	7674661	130	2.0	7677462
Dissolved Molybdenum (Mo)	ug/L	4.8	7674661	<2.0	2.0	7677462
Dissolved Nickel (Ni)	ug/L	6.2	7674661	3.3	2.0	7677462
Dissolved Phosphorus (P)	ug/L	<100	7674661	<100	100	7677462
Dissolved Potassium (K)	ug/L	9000	7674661	4300	100	7677462
Dissolved Selenium (Se)	ug/L	<0.50	7674661	<0.50	0.50	7677462
Dissolved Silver (Ag)	ug/L	<0.10	7674661	<0.10	0.10	7677462
Dissolved Sodium (Na)	ug/L	32000	7674661	10000	100	7677462
Dissolved Strontium (Sr)	ug/L	140	7674661	81	2.0	7677462
Dissolved Thallium (Tl)	ug/L	<0.10	7674661	<0.10	0.10	7677462
Dissolved Tin (Sn)	ug/L	<2.0	7674661	<2.0	2.0	7677462
Dissolved Titanium (Ti)	ug/L	2.0	7674661	<2.0	2.0	7677462
Dissolved Uranium (U)	ug/L	0.63	7674661	0.52	0.10	7677462
Dissolved Vanadium (V)	ug/L	<2.0	7674661	<2.0	2.0	7677462
Dissolved Zinc (Zn)	ug/L	<5.0	7674661	11	5.0	7677462
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						



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Sampler Initials: JV

### ATLANTIC RBCA HYDROCARBONS (WATER)

Bureau Veritas ID		RBU235	RBU236	RBU238	RBU239		RBU241		
Sampling Date		2021/10/27 13:55	2021/10/27 14:15	2021/10/27 14:30	2021/10/27 14:45		2021/10/26		
COC Number		848845-01-01	848845-01-01	848845-01-01	848845-01-01		848845-01-01		
	UNITS	MW15-A	MW15-B	MW20-A	MW20-B	QC Batch	MW5-A	RDL	QC Batch
<b>Petroleum Hydrocarbons</b>									
Benzene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	7672248	<0.0010	0.0010	7672248
Toluene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	7672248	<0.0010	0.0010	7672248
Ethylbenzene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	7672248	<0.0010	0.0010	7672248
Total Xylenes	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	7672248	<0.0020	0.0020	7672248
C6 - C10 (less BTEX)	mg/L	<0.090	<0.090	<0.090	<0.090	7672248	<0.090	0.090	7672248
>C10-C16 Hydrocarbons	mg/L	0.40	<0.050	<0.050	<0.050	7672185	<0.050	0.050	7672513
>C16-C21 Hydrocarbons	mg/L	0.15	<0.050	<0.050	<0.050	7672185	<0.050	0.050	7672513
>C21-<C32 Hydrocarbons	mg/L	0.16	<0.090	<0.090	<0.090	7672185	<0.090	0.090	7672513
Modified TPH (Tier1)	mg/L	0.71	<0.090	<0.090	<0.090	7668663	<0.090	0.090	7668663
Reached Baseline at C32	mg/L	Yes	NA	NA	NA	7672185	NA	N/A	7672513
Hydrocarbon Resemblance	mg/L	COMMENT (1)	NA	NA	NA	7672185	NA	N/A	7672513
<b>Surrogate Recovery (%)</b>									
Isobutylbenzene - Extractable	%	86	88	93	96	7672185	85		7672513
n-Dotriacontane - Extractable	%	111	111	103	103	7672185	95		7672513
Isobutylbenzene - Volatile	%	89	87	92	88	7672248	88		7672248
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable (1) Weathered fuel oil fraction.									





**ATLANTIC RBCA HYDROCARBONS (WATER)**

Bureau Veritas ID		RBU242	RBU243	RBU244	RBU245	RBU246		
Sampling Date		2021/10/26	2021/10/27 10:30	2021/10/27 10:05	2021/10/27 13:25	2021/10/27 13:00		
COC Number		848845-01-01	848845-01-01	848845-01-01	848845-02-01	848845-02-01		
	UNITS	MW5-B	MW6-A	MW6-B	MW7-A	MW7-B	RDL	QC Batch
<b>Petroleum Hydrocarbons</b>								
Benzene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7672248
Toluene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7672248
Ethylbenzene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7672248
Total Xylenes	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	7672248
C6 - C10 (less BTEX)	mg/L	<0.090	<0.090	<0.090	<0.090	<0.090	0.090	7672248
>C10-C16 Hydrocarbons	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7672513
>C16-C21 Hydrocarbons	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7672513
>C21-<C32 Hydrocarbons	mg/L	<0.090	<0.090	<0.090	<0.090	<0.090	0.090	7672513
Modified TPH (Tier1)	mg/L	<0.090	<0.090	<0.090	<0.090	<0.090	0.090	7668663
Reached Baseline at C32	mg/L	NA	NA	NA	NA	NA	N/A	7672513
Hydrocarbon Resemblance	mg/L	NA	NA	NA	NA	NA	N/A	7672513
<b>Surrogate Recovery (%)</b>								
Isobutylbenzene - Extractable	%	88	87	83	81	84		7672513
n-Dotriacontane - Extractable	%	98	99	93	95	96		7672513
Isobutylbenzene - Volatile	%	87	87	88	88	91		7672248
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable								



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Sampler Initials: JV

### ATLANTIC RBCA HYDROCARBONS (WATER)

Bureau Veritas ID		RBU247	RBU248	RBU250	RBU251	RBU252	RBU253		
Sampling Date		2021/10/27	2021/10/27	2021/10/27 11:50	2021/10/27 11:35	2021/10/27 12:05	2021/10/27 12:30		
COC Number		848845-02-01	848845-02-01	848845-02-01	848845-02-01	848845-02-01	848845-02-01		
	UNITS	MWA	MWB	MW26-A	MW26-B	MW46-A	MW46-B	RDL	QC Batch
<b>Petroleum Hydrocarbons</b>									
Benzene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7672248
Toluene	mg/L	0.0054	<0.0010	<0.0010	0.0054	<0.0010	<0.0010	0.0010	7672248
Ethylbenzene	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7672248
Total Xylenes	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	7672248
C6 - C10 (less BTEX)	mg/L	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	0.090	7672248
>C10-C16 Hydrocarbons	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7672529
>C16-C21 Hydrocarbons	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7672529
>C21-<C32 Hydrocarbons	mg/L	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	0.090	7672529
Modified TPH (Tier1)	mg/L	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	0.090	7668663
Reached Baseline at C32	mg/L	NA	NA	NA	NA	NA	NA	N/A	7672529
Hydrocarbon Resemblance	mg/L	NA	NA	NA	NA	NA	NA	N/A	7672529
<b>Surrogate Recovery (%)</b>									
Isobutylbenzene - Extractable	%	90	83	82	86	85	84		7672529
n-Dotriacontane - Extractable	%	112	105	98	103	105	105		7672529
Isobutylbenzene - Volatile	%	91	90	89	90	90	89		7672248
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable									



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Sampler Initials: JV

### ATLANTIC RBCA HYDROCARBONS (WATER)

Bureau Veritas ID		RBU254		RBU255		RBU256	RBU257		
Sampling Date		2021/10/27 10:50		2021/10/27 11:10		2021/10/27 09:55	2021/10/27 09:30		
COC Number		848845-02-01		848845-03-01		848845-03-01	848845-03-01		
	UNITS	MW30-A	QC Batch	MW30-B	QC Batch	MW42-A	MW42-B	RDL	QC Batch
<b>Petroleum Hydrocarbons</b>									
Benzene	mg/L	<0.0010	7672248	<0.0010	7672405	<0.0010	<0.0010	0.0010	7672405
Toluene	mg/L	<0.0010	7672248	<0.0010	7672405	<0.0010	<0.0010	0.0010	7672405
Ethylbenzene	mg/L	<0.0010	7672248	<0.0010	7672405	<0.0010	<0.0010	0.0010	7672405
Total Xylenes	mg/L	<0.0020	7672248	<0.0020	7672405	<0.0020	<0.0020	0.0020	7672405
C6 - C10 (less BTEX)	mg/L	<0.090	7672248	<0.090	7672405	<0.090	<0.090	0.090	7672405
>C10-C16 Hydrocarbons	mg/L	<0.050	7672529	<0.050	7672529	<0.050	<0.050	0.050	7672185
>C16-C21 Hydrocarbons	mg/L	<0.050	7672529	<0.050	7672529	<0.050	<0.050	0.050	7672185
>C21-<C32 Hydrocarbons	mg/L	<0.090	7672529	<0.090	7672529	<0.090	<0.090	0.090	7672185
Modified TPH (Tier1)	mg/L	<0.090	7668967	<0.090	7668967	<0.090	<0.090	0.090	7668967
Reached Baseline at C32	mg/L	NA	7672529	NA	7672529	NA	NA	N/A	7672185
Hydrocarbon Resemblance	mg/L	NA	7672529	NA	7672529	NA	NA	N/A	7672185
<b>Surrogate Recovery (%)</b>									
Isobutylbenzene - Extractable	%	86	7672529	84	7672529	95	89		7672185
n-Dotriacontane - Extractable	%	105	7672529	103	7672529	97	97 (1)		7672185
Isobutylbenzene - Volatile	%	91	7672248	100	7672405	100	99		7672405
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable (1) TEH sample contained sediment.									



**ATLANTIC RBCA HYDROCARBONS (WATER)**

Bureau Veritas ID		RBU258	RBU259		
Sampling Date		2021/10/27 15:50	2021/10/27 15:30		
COC Number		848845-03-01	848845-03-01		
	UNITS	MW43-A	MW43-B	RDL	QC Batch
<b>Petroleum Hydrocarbons</b>					
Benzene	mg/L	<0.0010	<0.0010	0.0010	7672405
Toluene	mg/L	<0.0010	<0.0010	0.0010	7672405
Ethylbenzene	mg/L	<0.0010	<0.0010	0.0010	7672405
Total Xylenes	mg/L	<0.0020	<0.0020	0.0020	7672405
C6 - C10 (less BTEX)	mg/L	<0.090	<0.090	0.090	7672405
>C10-C16 Hydrocarbons	mg/L	<0.050	<0.050	0.050	7672185
>C16-C21 Hydrocarbons	mg/L	<0.050	<0.050	0.050	7672185
>C21-<C32 Hydrocarbons	mg/L	<0.090	<0.090	0.090	7672185
Modified TPH (Tier1)	mg/L	<0.090	<0.090	0.090	7668967
Reached Baseline at C32	mg/L	NA	NA	N/A	7672185
Hydrocarbon Resemblance	mg/L	NA	NA	N/A	7672185
<b>Surrogate Recovery (%)</b>					
Isobutylbenzene - Extractable	%	92	93		7672185
n-Dotriacontane - Extractable	%	93	91		7672185
Isobutylbenzene - Volatile	%	99	99		7672405
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable					



### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	1.3°C
Package 2	1.0°C
Package 3	3.7°C
Package 4	1.3°C
Package 5	0.7°C
Package 6	2.3°C

Sample RBU235 [MW15-A] : ortho-Phosphate > Phosphorus: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Poor RCap Ion Balance due to sample matrix. Possibly due to fine particulate matter. Anion sum does not include contribution from Total Organic Carbon. ortho-Phosphate > Total Phosphorus: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample RBU236 [MW15-B] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. DOCCOMB-W DIS Organic Carbon (C) > TOCCOMB-W TOT: Re-analysis of new aliquots from client supplied bottles confirmed original results. ortho-Phosphate > Phosphorus: Both values fall within the method uncertainty for duplicates and are likely equivalent. NOX < NO2 : Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample RBU238 [MW20-A] : NOX < NO2 : Both values fall within the method uncertainty for duplicates and are likely equivalent. RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L.

Sample RBU239 [MW20-B] : DOCCOMB-W DIS Organic Carbon (C) > TOCCOMB-W TOT: Re-analysis of new aliquots from client supplied bottles confirmed original results. ortho-Phosphate > Phosphorus: Both values fall within the method uncertainty for duplicates and are likely equivalent. Total Phosphorus < Dissolved Phosphorus: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample RBU242 [MW5-B] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. Total Phosphorus < Dissolved Phosphorus: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample RBU243 [MW6-A] : RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L.

Sample RBU244 [MW6-B] : ortho-Phosphate > Phosphorus: Both values fall within the method uncertainty for duplicates and are likely equivalent. ortho-Phosphate > Total Phosphorus: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample RBU245 [MW7-A] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L.

Sample RBU246 [MW7-B] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. Poor RCap Ion Balance due to sample matrix. Possibly due to fine particulate matter. Anion sum does not include contribution from Total Organic Carbon.

Sample RBU247 [MWA] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. ortho-Phosphate > Phosphorus: Both values fall within the method uncertainty for duplicates and are likely equivalent. Poor RCap Ion Balance due to sample matrix.

Sample RBU248 [MWB] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L.

Sample RBU250 [MW26-A] : NOX < NO2 : Both values fall within the method uncertainty for duplicates and are likely equivalent. RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L.

Sample RBU251 [MW26-B] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. ortho-Phosphate > Phosphorus: Both values fall within the method uncertainty for duplicates and are likely equivalent. NOX < NO2 : Both values fall within the method



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uncertainty for duplicates and are likely equivalent.

Poor RCap Ion Balance due to sample matrix.

Sample RBU252 [MW46-A] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. NOX < NO2 : Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample RBU253 [MW46-B] : ortho-Phosphate > Phosphorus: Both values fall within the method uncertainty for duplicates and are likely equivalent. NOX < NO2 : Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample RBU254 [MW30-A] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample RBU255 [MW30-B] : NOX < NO2 : Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample RBU256 [MW42-A] : NOX < NO2 : Both values fall within the method uncertainty for duplicates and are likely equivalent. RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L.

Sample RBU258 [MW43-A] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. NOX < NO2 : Both values fall within the method uncertainty for duplicates and are likely equivalent.

Poor RCap Ion Balance due to sample matrix.

Sample RBU259 [MW43-B] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.

DOCCOMB-W DIS Organic Carbon (C) > TOCCOMB-W TOT: Re-analysis of new aliquots from client supplied bottles confirmed original results.

Poor RCap Ion Balance due to sample matrix.

**Results relate only to the items tested.**



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### QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7672162	NGI	Matrix Spike [RBU259-11]	Dissolved Organic Carbon (C)	2021/11/01		90	%	85 - 115
7672162	NGI	Spiked Blank	Dissolved Organic Carbon (C)	2021/11/01		98	%	80 - 120
7672162	NGI	Method Blank	Dissolved Organic Carbon (C)	2021/11/01	<0.5		mg/L	
7672162	NGI	RPD [RBU259-11]	Dissolved Organic Carbon (C)	2021/11/01	1.1		%	15
7672185	MGN	Matrix Spike	Isobutylbenzene - Extractable	2021/11/01		92	%	70 - 130
			n-Dotriacontane - Extractable	2021/11/01		110	%	70 - 130
			>C10-C16 Hydrocarbons	2021/11/01		74	%	70 - 130
			>C16-C21 Hydrocarbons	2021/11/01		70	%	70 - 130
			>C21-<C32 Hydrocarbons	2021/11/01		80	%	70 - 130
7672185	MGN	Spiked Blank	Isobutylbenzene - Extractable	2021/11/01		98	%	70 - 130
			n-Dotriacontane - Extractable	2021/11/01		104	%	70 - 130
			>C10-C16 Hydrocarbons	2021/11/01		97	%	70 - 130
			>C16-C21 Hydrocarbons	2021/11/01		87	%	70 - 130
			>C21-<C32 Hydrocarbons	2021/11/01		91	%	70 - 130
7672185	MGN	Method Blank	Isobutylbenzene - Extractable	2021/11/01		99	%	70 - 130
			n-Dotriacontane - Extractable	2021/11/01		103	%	70 - 130
			>C10-C16 Hydrocarbons	2021/11/01	<0.050		mg/L	
			>C16-C21 Hydrocarbons	2021/11/01	<0.050		mg/L	
			>C21-<C32 Hydrocarbons	2021/11/01	<0.090		mg/L	
7672185	MGN	RPD	>C10-C16 Hydrocarbons	2021/11/01	NC		%	40
			>C16-C21 Hydrocarbons	2021/11/01	NC		%	40
			>C21-<C32 Hydrocarbons	2021/11/01	NC		%	40
7672209	MCN	Matrix Spike	Total Phosphorus	2021/11/02		109	%	80 - 120
7672209	MCN	Spiked Blank	Total Phosphorus	2021/11/02		106	%	80 - 120
7672209	MCN	Method Blank	Total Phosphorus	2021/11/02	<0.020		mg/L	
7672209	MCN	RPD	Total Phosphorus	2021/11/02	5.0		%	25
7672211	MCN	Matrix Spike	Total Phosphorus	2021/11/02		107	%	80 - 120
7672211	MCN	Spiked Blank	Total Phosphorus	2021/11/02		102	%	80 - 120
7672211	MCN	Method Blank	Total Phosphorus	2021/11/02	<0.020		mg/L	
7672211	MCN	RPD	Total Phosphorus	2021/11/02	9.0		%	25
7672248	THL	Matrix Spike	Isobutylbenzene - Volatile	2021/11/01		89	%	70 - 130
			Benzene	2021/11/01		82	%	70 - 130
			Toluene	2021/11/01		80	%	70 - 130
			Ethylbenzene	2021/11/01		79	%	70 - 130
			Total Xylenes	2021/11/01		82	%	70 - 130
7672248	THL	Spiked Blank	Isobutylbenzene - Volatile	2021/11/01		98	%	70 - 130
			Benzene	2021/11/01		95	%	70 - 130
			Toluene	2021/11/01		94	%	70 - 130
			Ethylbenzene	2021/11/01		93	%	70 - 130
			Total Xylenes	2021/11/01		96	%	70 - 130
7672248	THL	Method Blank	Isobutylbenzene - Volatile	2021/11/01		97	%	70 - 130
			Benzene	2021/11/01	<0.0010		mg/L	
			Toluene	2021/11/01	<0.0010		mg/L	
			Ethylbenzene	2021/11/01	<0.0010		mg/L	
			Total Xylenes	2021/11/01	<0.0020		mg/L	
			C6 - C10 (less BTEX)	2021/11/01	<0.090		mg/L	
7672248	THL	RPD	Benzene	2021/11/01	NC		%	40
			Toluene	2021/11/01	NC		%	40
			Ethylbenzene	2021/11/01	NC		%	40
			Total Xylenes	2021/11/01	NC		%	40
			C6 - C10 (less BTEX)	2021/11/01	NC		%	40
7672405	THL	Matrix Spike	Isobutylbenzene - Volatile	2021/11/01		93	%	70 - 130
			Benzene	2021/11/01		80	%	70 - 130



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Client Project #: GOLDBORO

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Sampler Initials: JV

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7672405	THL	Spiked Blank	Toluene	2021/11/01		82	%	70 - 130
			Ethylbenzene	2021/11/01		NC	%	70 - 130
			Total Xylenes	2021/11/01		83	%	70 - 130
			Isobutylbenzene - Volatile	2021/11/01		115	%	70 - 130
			Benzene	2021/11/01		98	%	70 - 130
			Toluene	2021/11/01		100	%	70 - 130
			Ethylbenzene	2021/11/01		102	%	70 - 130
7672405	THL	Method Blank	Total Xylenes	2021/11/01		102	%	70 - 130
			Isobutylbenzene - Volatile	2021/11/01		113	%	70 - 130
			Benzene	2021/11/01	<0.0010		mg/L	
			Toluene	2021/11/01	<0.0010		mg/L	
			Ethylbenzene	2021/11/01	<0.0010		mg/L	
			Total Xylenes	2021/11/01	<0.0020		mg/L	
			C6 - C10 (less BTEX)	2021/11/01	<0.090		mg/L	
7672405	THL	RPD	Benzene	2021/11/01	NC		%	40
			Toluene	2021/11/01	NC		%	40
			Ethylbenzene	2021/11/01	NC		%	40
			Total Xylenes	2021/11/01	NC		%	40
			C6 - C10 (less BTEX)	2021/11/01	NC		%	40
			Isobutylbenzene - Extractable	2021/11/01		79	%	70 - 130
			n-Dotriacontane - Extractable	2021/11/01		93	%	70 - 130
7672513	MSK	Matrix Spike	>C10-C16 Hydrocarbons	2021/11/01		94	%	70 - 130
			>C16-C21 Hydrocarbons	2021/11/01		96	%	70 - 130
			>C21-<C32 Hydrocarbons	2021/11/01		94	%	70 - 130
			Isobutylbenzene - Extractable	2021/11/01		87	%	70 - 130
			n-Dotriacontane - Extractable	2021/11/01		94	%	70 - 130
			>C10-C16 Hydrocarbons	2021/11/01		100	%	70 - 130
			>C16-C21 Hydrocarbons	2021/11/01		96	%	70 - 130
7672513	MSK	Spiked Blank	>C21-<C32 Hydrocarbons	2021/11/01		94	%	70 - 130
			Isobutylbenzene - Extractable	2021/11/01		87	%	70 - 130
			n-Dotriacontane - Extractable	2021/11/01		94	%	70 - 130
			>C10-C16 Hydrocarbons	2021/11/01		100	%	70 - 130
			>C16-C21 Hydrocarbons	2021/11/01		96	%	70 - 130
			>C21-<C32 Hydrocarbons	2021/11/01		94	%	70 - 130
			Isobutylbenzene - Extractable	2021/11/01		86	%	70 - 130
7672513	MSK	Method Blank	n-Dotriacontane - Extractable	2021/11/01		100	%	70 - 130
			>C10-C16 Hydrocarbons	2021/11/01	<0.050		mg/L	
			>C16-C21 Hydrocarbons	2021/11/01	<0.050		mg/L	
			>C21-<C32 Hydrocarbons	2021/11/01	<0.090		mg/L	
			>C10-C16 Hydrocarbons	2021/11/01	NC		%	40
			>C16-C21 Hydrocarbons	2021/11/01	NC		%	40
			>C21-<C32 Hydrocarbons	2021/11/01	NC		%	40
7672529	MGN	Matrix Spike	Isobutylbenzene - Extractable	2021/11/01		79	%	70 - 130
			n-Dotriacontane - Extractable	2021/11/01		116	%	70 - 130
			>C10-C16 Hydrocarbons	2021/11/01		93	%	70 - 130
			>C16-C21 Hydrocarbons	2021/11/01		72	%	70 - 130
			>C21-<C32 Hydrocarbons	2021/11/01		NC	%	70 - 130
			Isobutylbenzene - Extractable	2021/11/01		85	%	70 - 130
			n-Dotriacontane - Extractable	2021/11/01		105	%	70 - 130
7672529	MGN	Spiked Blank	>C10-C16 Hydrocarbons	2021/11/01		102	%	70 - 130
			>C16-C21 Hydrocarbons	2021/11/01		97	%	70 - 130
			>C21-<C32 Hydrocarbons	2021/11/01		107	%	70 - 130
			Isobutylbenzene - Extractable	2021/11/01		84	%	70 - 130
			n-Dotriacontane - Extractable	2021/11/01		113	%	70 - 130
			>C10-C16 Hydrocarbons	2021/11/01	<0.050		mg/L	
			>C16-C21 Hydrocarbons	2021/11/01	<0.050		mg/L	
7672529	MGN	RPD	>C21-<C32 Hydrocarbons	2021/11/01	<0.090		mg/L	
			>C10-C16 Hydrocarbons	2021/11/02	NC		%	40





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### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			>C16-C21 Hydrocarbons	2021/11/02	NC		%	40
			>C21-<C32 Hydrocarbons	2021/11/02	NC		%	40
7672884	NGI	Matrix Spike	Total Organic Carbon (C)	2021/11/02		93	%	85 - 115
7672884	NGI	Spiked Blank	Total Organic Carbon (C)	2021/11/02		98	%	80 - 120
7672884	NGI	Method Blank	Total Organic Carbon (C)	2021/11/02	<0.50		mg/L	
7672884	NGI	RPD	Total Organic Carbon (C)	2021/11/02	3.1		%	15
7672978	ZZH	Matrix Spike [RBU236-09]	Total Chemical Oxygen Demand	2021/11/02		102	%	80 - 120
7672978	ZZH	QC Standard	Total Chemical Oxygen Demand	2021/11/02		96	%	80 - 120
7672978	ZZH	Spiked Blank	Total Chemical Oxygen Demand	2021/11/02		100	%	80 - 120
7672978	ZZH	Method Blank	Total Chemical Oxygen Demand	2021/11/02	<20		mg/L	
7672978	ZZH	RPD [RBU236-09]	Total Chemical Oxygen Demand	2021/11/02	NC		%	25
7672988	ZZH	Matrix Spike [RBU258-09]	Total Chemical Oxygen Demand	2021/11/02		100	%	80 - 120
7672988	ZZH	QC Standard	Total Chemical Oxygen Demand	2021/11/02		100	%	80 - 120
7672988	ZZH	Spiked Blank	Total Chemical Oxygen Demand	2021/11/02		102	%	80 - 120
7672988	ZZH	Method Blank	Total Chemical Oxygen Demand	2021/11/02	<20		mg/L	
7672988	ZZH	RPD [RBU258-09]	Total Chemical Oxygen Demand	2021/11/02	NC		%	25
7674321	SHW	Spiked Blank	Conductivity	2021/11/02		99	%	80 - 120
7674321	SHW	Method Blank	Conductivity	2021/11/02	<1.0		uS/cm	
7674321	SHW	RPD	Conductivity	2021/11/02	1.1		%	10
7674322	SHW	Spiked Blank	pH	2021/11/02		100	%	97 - 103
7674322	SHW	RPD	pH	2021/11/02	0.28		%	N/A
7674364	NGI	Matrix Spike	Total Organic Carbon (C)	2021/11/02		90	%	85 - 115
7674364	NGI	Spiked Blank	Total Organic Carbon (C)	2021/11/02		97	%	80 - 120
7674364	NGI	Method Blank	Total Organic Carbon (C)	2021/11/02	<0.50		mg/L	
7674364	NGI	RPD	Total Organic Carbon (C)	2021/11/02	3.8		%	15
7674377	NGI	Matrix Spike	Total Organic Carbon (C)	2021/11/02		87	%	85 - 115
7674377	NGI	Spiked Blank	Total Organic Carbon (C)	2021/11/02		95	%	80 - 120
7674377	NGI	Method Blank	Total Organic Carbon (C)	2021/11/02	<0.50		mg/L	
7674377	NGI	RPD	Total Organic Carbon (C)	2021/11/02	NC		%	15
7674432	MCN	Matrix Spike [RBU248-07]	Nitrogen (Ammonia Nitrogen)	2021/11/03		106	%	80 - 120
7674432	MCN	Spiked Blank	Nitrogen (Ammonia Nitrogen)	2021/11/03		109	%	80 - 120
7674432	MCN	Method Blank	Nitrogen (Ammonia Nitrogen)	2021/11/03	<0.050		mg/L	
7674432	MCN	RPD [RBU248-07]	Nitrogen (Ammonia Nitrogen)	2021/11/03	NC		%	20
7674497	SHW	QC Standard	Turbidity	2021/11/02		102	%	80 - 120
7674497	SHW	Spiked Blank	Turbidity	2021/11/02		105	%	80 - 120
7674497	SHW	Method Blank	Turbidity	2021/11/02	<0.10		NTU	
7674497	SHW	RPD	Turbidity	2021/11/02	NC		%	20
7674508	MKX	QC Standard	Total Suspended Solids	2021/11/04		101	%	80 - 120
7674508	MKX	Method Blank	Total Suspended Solids	2021/11/04	<1.0		mg/L	
7674508	MKX	RPD	Total Suspended Solids	2021/11/04	1.9		%	20
7674642	NHU	Matrix Spike	Total Mercury (Hg)	2021/11/03		102	%	80 - 120
7674642	NHU	Spiked Blank	Total Mercury (Hg)	2021/11/03		104	%	80 - 120
7674642	NHU	Method Blank	Total Mercury (Hg)	2021/11/03	<0.013		ug/L	
7674642	NHU	RPD	Total Mercury (Hg)	2021/11/03	NC		%	20
7674661	BAN	Matrix Spike	Dissolved Aluminum (Al)	2021/11/02		100	%	80 - 120
			Dissolved Antimony (Sb)	2021/11/02		101	%	80 - 120
			Dissolved Arsenic (As)	2021/11/02		96	%	80 - 120
			Dissolved Barium (Ba)	2021/11/02		95	%	80 - 120
			Dissolved Beryllium (Be)	2021/11/02		102	%	80 - 120
			Dissolved Bismuth (Bi)	2021/11/02		94	%	80 - 120
			Dissolved Boron (B)	2021/11/02		102	%	80 - 120
			Dissolved Cadmium (Cd)	2021/11/02		97	%	80 - 120
			Dissolved Calcium (Ca)	2021/11/02		101	%	80 - 120



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### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
				Dissolved Chromium (Cr)	2021/11/02		99	%	80 - 120
				Dissolved Cobalt (Co)	2021/11/02		97	%	80 - 120
				Dissolved Copper (Cu)	2021/11/02		95	%	80 - 120
				Dissolved Iron (Fe)	2021/11/02		NC	%	80 - 120
				Dissolved Lead (Pb)	2021/11/02		95	%	80 - 120
				Dissolved Magnesium (Mg)	2021/11/02		98	%	80 - 120
				Dissolved Manganese (Mn)	2021/11/02		NC	%	80 - 120
				Dissolved Molybdenum (Mo)	2021/11/02		104	%	80 - 120
				Dissolved Nickel (Ni)	2021/11/02		97	%	80 - 120
				Dissolved Phosphorus (P)	2021/11/02		100	%	80 - 120
				Dissolved Potassium (K)	2021/11/02		NC	%	80 - 120
				Dissolved Selenium (Se)	2021/11/02		100	%	80 - 120
				Dissolved Silver (Ag)	2021/11/02		84	%	80 - 120
				Dissolved Sodium (Na)	2021/11/02		NC	%	80 - 120
				Dissolved Strontium (Sr)	2021/11/02		NC	%	80 - 120
				Dissolved Thallium (Tl)	2021/11/02		96	%	80 - 120
				Dissolved Tin (Sn)	2021/11/02		100	%	80 - 120
				Dissolved Titanium (Ti)	2021/11/02		104	%	80 - 120
				Dissolved Uranium (U)	2021/11/02		99	%	80 - 120
				Dissolved Vanadium (V)	2021/11/02		101	%	80 - 120
				Dissolved Zinc (Zn)	2021/11/02		98	%	80 - 120
	7674661	BAN	Spiked Blank	Dissolved Aluminum (Al)	2021/11/02		99	%	80 - 120
				Dissolved Antimony (Sb)	2021/11/02		99	%	80 - 120
				Dissolved Arsenic (As)	2021/11/02		95	%	80 - 120
				Dissolved Barium (Ba)	2021/11/02		97	%	80 - 120
				Dissolved Beryllium (Be)	2021/11/02		98	%	80 - 120
				Dissolved Bismuth (Bi)	2021/11/02		99	%	80 - 120
				Dissolved Boron (B)	2021/11/02		95	%	80 - 120
				Dissolved Cadmium (Cd)	2021/11/02		93	%	80 - 120
				Dissolved Calcium (Ca)	2021/11/02		105	%	80 - 120
				Dissolved Chromium (Cr)	2021/11/02		99	%	80 - 120
				Dissolved Cobalt (Co)	2021/11/02		98	%	80 - 120
				Dissolved Copper (Cu)	2021/11/02		100	%	80 - 120
				Dissolved Iron (Fe)	2021/11/02		102	%	80 - 120
				Dissolved Lead (Pb)	2021/11/02		98	%	80 - 120
				Dissolved Magnesium (Mg)	2021/11/02		102	%	80 - 120
				Dissolved Manganese (Mn)	2021/11/02		101	%	80 - 120
				Dissolved Molybdenum (Mo)	2021/11/02		101	%	80 - 120
				Dissolved Nickel (Ni)	2021/11/02		100	%	80 - 120
				Dissolved Phosphorus (P)	2021/11/02		108	%	80 - 120
				Dissolved Potassium (K)	2021/11/02		101	%	80 - 120
				Dissolved Selenium (Se)	2021/11/02		99	%	80 - 120
				Dissolved Silver (Ag)	2021/11/02		97	%	80 - 120
				Dissolved Sodium (Na)	2021/11/02		101	%	80 - 120
				Dissolved Strontium (Sr)	2021/11/02		100	%	80 - 120
				Dissolved Thallium (Tl)	2021/11/02		99	%	80 - 120
				Dissolved Tin (Sn)	2021/11/02		99	%	80 - 120
				Dissolved Titanium (Ti)	2021/11/02		101	%	80 - 120
				Dissolved Uranium (U)	2021/11/02		98	%	80 - 120
				Dissolved Vanadium (V)	2021/11/02		99	%	80 - 120
				Dissolved Zinc (Zn)	2021/11/02		102	%	80 - 120
	7674661	BAN	Method Blank	Dissolved Aluminum (Al)	2021/11/02	<5.0		ug/L	
				Dissolved Antimony (Sb)	2021/11/02	<1.0		ug/L	



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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Arsenic (As)	2021/11/02	<1.0		ug/L	
			Dissolved Barium (Ba)	2021/11/02	<1.0		ug/L	
			Dissolved Beryllium (Be)	2021/11/02	<0.10		ug/L	
			Dissolved Bismuth (Bi)	2021/11/02	<2.0		ug/L	
			Dissolved Boron (B)	2021/11/02	<50		ug/L	
			Dissolved Cadmium (Cd)	2021/11/02	<0.010		ug/L	
			Dissolved Calcium (Ca)	2021/11/02	<100		ug/L	
			Dissolved Chromium (Cr)	2021/11/02	<1.0		ug/L	
			Dissolved Cobalt (Co)	2021/11/02	<0.40		ug/L	
			Dissolved Copper (Cu)	2021/11/02	<0.50		ug/L	
			Dissolved Iron (Fe)	2021/11/02	<50		ug/L	
			Dissolved Lead (Pb)	2021/11/02	<0.50		ug/L	
			Dissolved Magnesium (Mg)	2021/11/02	<100		ug/L	
			Dissolved Manganese (Mn)	2021/11/02	<2.0		ug/L	
			Dissolved Molybdenum (Mo)	2021/11/02	<2.0		ug/L	
			Dissolved Nickel (Ni)	2021/11/02	<2.0		ug/L	
			Dissolved Phosphorus (P)	2021/11/02	<100		ug/L	
			Dissolved Potassium (K)	2021/11/02	<100		ug/L	
			Dissolved Selenium (Se)	2021/11/02	<0.50		ug/L	
			Dissolved Silver (Ag)	2021/11/02	<0.10		ug/L	
			Dissolved Sodium (Na)	2021/11/02	<100		ug/L	
			Dissolved Strontium (Sr)	2021/11/02	<2.0		ug/L	
			Dissolved Thallium (Tl)	2021/11/02	<0.10		ug/L	
			Dissolved Tin (Sn)	2021/11/02	<2.0		ug/L	
			Dissolved Titanium (Ti)	2021/11/02	<2.0		ug/L	
			Dissolved Uranium (U)	2021/11/02	<0.10		ug/L	
			Dissolved Vanadium (V)	2021/11/02	<2.0		ug/L	
			Dissolved Zinc (Zn)	2021/11/02	<5.0		ug/L	
7674661	BAN	RPD	Dissolved Lead (Pb)	2021/11/02	1.4		%	20
7674821	NGI	Matrix Spike [RBU247-08]	Total Organic Carbon (C)	2021/11/03		91	%	85 - 115
7674821	NGI	Spiked Blank	Total Organic Carbon (C)	2021/11/03		99	%	80 - 120
7674821	NGI	Method Blank	Total Organic Carbon (C)	2021/11/03	<0.50		mg/L	
7674821	NGI	RPD [RBU247-08]	Total Organic Carbon (C)	2021/11/03	5.3		%	15
7674832	MKX	QC Standard	Total Suspended Solids	2021/11/04		100	%	80 - 120
7674832	MKX	Method Blank	Total Suspended Solids	2021/11/04	<1.0		mg/L	
7674832	MKX	RPD [RBU238-12]	Total Suspended Solids	2021/11/04	3.5		%	20
7674866	NHU	Matrix Spike	Total Mercury (Hg)	2021/11/03		103	%	80 - 120
7674866	NHU	Spiked Blank	Total Mercury (Hg)	2021/11/03		105	%	80 - 120
7674866	NHU	Method Blank	Total Mercury (Hg)	2021/11/03	<0.013		ug/L	
7674866	NHU	RPD	Total Mercury (Hg)	2021/11/03	NC		%	20
7675111	NHU	Matrix Spike	Dissolved Mercury (Hg)	2021/11/03		104	%	80 - 120
7675111	NHU	Spiked Blank	Dissolved Mercury (Hg)	2021/11/03		103	%	80 - 120
7675111	NHU	Method Blank	Dissolved Mercury (Hg)	2021/11/03	<0.013		ug/L	
7675111	NHU	RPD	Dissolved Mercury (Hg)	2021/11/03	NC		%	20
7675431	MLB	Matrix Spike	Dissolved Aluminum (Al)	2021/11/03		102	%	80 - 120
			Dissolved Antimony (Sb)	2021/11/03		100	%	80 - 120
			Dissolved Arsenic (As)	2021/11/03		95	%	80 - 120
			Dissolved Barium (Ba)	2021/11/03		98	%	80 - 120
			Dissolved Beryllium (Be)	2021/11/03		102	%	80 - 120
			Dissolved Bismuth (Bi)	2021/11/03		97	%	80 - 120
			Dissolved Boron (B)	2021/11/03		99	%	80 - 120
			Dissolved Cadmium (Cd)	2021/11/03		98	%	80 - 120
			Dissolved Calcium (Ca)	2021/11/03		104	%	80 - 120



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Bureau Veritas Job #: C1V7201  
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Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: JV

### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
				Dissolved Chromium (Cr)	2021/11/03		98	%	80 - 120
				Dissolved Cobalt (Co)	2021/11/03		97	%	80 - 120
				Dissolved Copper (Cu)	2021/11/03		98	%	80 - 120
				Dissolved Iron (Fe)	2021/11/03		NC	%	80 - 120
				Dissolved Lead (Pb)	2021/11/03		98	%	80 - 120
				Dissolved Magnesium (Mg)	2021/11/03		97	%	80 - 120
				Dissolved Manganese (Mn)	2021/11/03		NC	%	80 - 120
				Dissolved Molybdenum (Mo)	2021/11/03		102	%	80 - 120
				Dissolved Nickel (Ni)	2021/11/03		98	%	80 - 120
				Dissolved Phosphorus (P)	2021/11/03		105	%	80 - 120
				Dissolved Potassium (K)	2021/11/03		99	%	80 - 120
				Dissolved Selenium (Se)	2021/11/03		100	%	80 - 120
				Dissolved Silver (Ag)	2021/11/03		86	%	80 - 120
				Dissolved Sodium (Na)	2021/11/03		96	%	80 - 120
				Dissolved Strontium (Sr)	2021/11/03		96	%	80 - 120
				Dissolved Thallium (Tl)	2021/11/03		99	%	80 - 120
				Dissolved Tin (Sn)	2021/11/03		102	%	80 - 120
				Dissolved Titanium (Ti)	2021/11/03		98	%	80 - 120
				Dissolved Uranium (U)	2021/11/03		100	%	80 - 120
				Dissolved Vanadium (V)	2021/11/03		98	%	80 - 120
				Dissolved Zinc (Zn)	2021/11/03		99	%	80 - 120
	7675431	MLB	Spiked Blank	Dissolved Aluminum (Al)	2021/11/03		103	%	80 - 120
				Dissolved Antimony (Sb)	2021/11/03		101	%	80 - 120
				Dissolved Arsenic (As)	2021/11/03		96	%	80 - 120
				Dissolved Barium (Ba)	2021/11/03		98	%	80 - 120
				Dissolved Beryllium (Be)	2021/11/03		101	%	80 - 120
				Dissolved Bismuth (Bi)	2021/11/03		98	%	80 - 120
				Dissolved Boron (B)	2021/11/03		97	%	80 - 120
				Dissolved Cadmium (Cd)	2021/11/03		96	%	80 - 120
				Dissolved Calcium (Ca)	2021/11/03		104	%	80 - 120
				Dissolved Chromium (Cr)	2021/11/03		99	%	80 - 120
				Dissolved Cobalt (Co)	2021/11/03		99	%	80 - 120
				Dissolved Copper (Cu)	2021/11/03		100	%	80 - 120
				Dissolved Iron (Fe)	2021/11/03		103	%	80 - 120
				Dissolved Lead (Pb)	2021/11/03		99	%	80 - 120
				Dissolved Magnesium (Mg)	2021/11/03		103	%	80 - 120
				Dissolved Manganese (Mn)	2021/11/03		102	%	80 - 120
				Dissolved Molybdenum (Mo)	2021/11/03		106	%	80 - 120
				Dissolved Nickel (Ni)	2021/11/03		101	%	80 - 120
				Dissolved Phosphorus (P)	2021/11/03		108	%	80 - 120
				Dissolved Potassium (K)	2021/11/03		102	%	80 - 120
				Dissolved Selenium (Se)	2021/11/03		98	%	80 - 120
				Dissolved Silver (Ag)	2021/11/03		98	%	80 - 120
				Dissolved Sodium (Na)	2021/11/03		102	%	80 - 120
				Dissolved Strontium (Sr)	2021/11/03		99	%	80 - 120
				Dissolved Thallium (Tl)	2021/11/03		101	%	80 - 120
				Dissolved Tin (Sn)	2021/11/03		105	%	80 - 120
				Dissolved Titanium (Ti)	2021/11/03		102	%	80 - 120
				Dissolved Uranium (U)	2021/11/03		100	%	80 - 120
				Dissolved Vanadium (V)	2021/11/03		98	%	80 - 120
				Dissolved Zinc (Zn)	2021/11/03		103	%	80 - 120
	7675431	MLB	Method Blank	Dissolved Aluminum (Al)	2021/11/03	<5.0		ug/L	
				Dissolved Antimony (Sb)	2021/11/03	<1.0		ug/L	



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Sampler Initials: JV

### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Arsenic (As)	2021/11/03	<1.0		ug/L	
			Dissolved Barium (Ba)	2021/11/03	<1.0		ug/L	
			Dissolved Beryllium (Be)	2021/11/03	<0.10		ug/L	
			Dissolved Bismuth (Bi)	2021/11/03	<2.0		ug/L	
			Dissolved Boron (B)	2021/11/03	<50		ug/L	
			Dissolved Cadmium (Cd)	2021/11/03	<0.010		ug/L	
			Dissolved Calcium (Ca)	2021/11/03	<100		ug/L	
			Dissolved Chromium (Cr)	2021/11/03	<1.0		ug/L	
			Dissolved Cobalt (Co)	2021/11/03	<0.40		ug/L	
			Dissolved Copper (Cu)	2021/11/03	<0.50		ug/L	
			Dissolved Iron (Fe)	2021/11/03	<50		ug/L	
			Dissolved Lead (Pb)	2021/11/03	<0.50		ug/L	
			Dissolved Magnesium (Mg)	2021/11/03	<100		ug/L	
			Dissolved Manganese (Mn)	2021/11/03	<2.0		ug/L	
			Dissolved Molybdenum (Mo)	2021/11/03	<2.0		ug/L	
			Dissolved Nickel (Ni)	2021/11/03	<2.0		ug/L	
			Dissolved Phosphorus (P)	2021/11/03	<100		ug/L	
			Dissolved Potassium (K)	2021/11/03	<100		ug/L	
			Dissolved Selenium (Se)	2021/11/03	<0.50		ug/L	
			Dissolved Silver (Ag)	2021/11/03	<0.10		ug/L	
			Dissolved Sodium (Na)	2021/11/03	<100		ug/L	
			Dissolved Strontium (Sr)	2021/11/03	<2.0		ug/L	
			Dissolved Thallium (Tl)	2021/11/03	<0.10		ug/L	
			Dissolved Tin (Sn)	2021/11/03	<2.0		ug/L	
			Dissolved Titanium (Ti)	2021/11/03	<2.0		ug/L	
			Dissolved Uranium (U)	2021/11/03	<0.10		ug/L	
			Dissolved Vanadium (V)	2021/11/03	<2.0		ug/L	
			Dissolved Zinc (Zn)	2021/11/03	<5.0		ug/L	
7675431	MLB	RPD	Dissolved Copper (Cu)	2021/11/03	9.5		%	20
			Dissolved Iron (Fe)	2021/11/03	1.7		%	20
			Dissolved Magnesium (Mg)	2021/11/03	2.9		%	20
			Dissolved Manganese (Mn)	2021/11/03	2.2		%	20
			Dissolved Sodium (Na)	2021/11/03	1.5		%	20
7675543	MXK	QC Standard	Total Suspended Solids	2021/11/04		100	%	80 - 120
7675543	MXK	Method Blank	Total Suspended Solids	2021/11/04	<1.0		mg/L	
7675543	MXK	RPD	Total Suspended Solids	2021/11/04	9.1		%	20
7676921	SHW	Spiked Blank	Conductivity	2021/11/03		101	%	80 - 120
7676921	SHW	Method Blank	Conductivity	2021/11/03	1.0, RDL=1.0		uS/cm	
7676921	SHW	RPD	Conductivity	2021/11/03	3.6		%	10
7676923	SHW	Spiked Blank	pH	2021/11/03		100	%	97 - 103
7676923	SHW	RPD	pH	2021/11/03	0.83		%	N/A
7676924	SHW	Spiked Blank	Conductivity	2021/11/03		100	%	80 - 120
7676924	SHW	Method Blank	Conductivity	2021/11/03	1.1, RDL=1.0		uS/cm	
7676924	SHW	RPD	Conductivity	2021/11/03	1.3		%	10
7676925	SHW	Spiked Blank	pH	2021/11/03		100	%	97 - 103
7676925	SHW	RPD	pH	2021/11/03	0.54		%	N/A
7677000	MCN	Matrix Spike	Nitrogen (Ammonia Nitrogen)	2021/11/04		104	%	80 - 120
7677000	MCN	Spiked Blank	Nitrogen (Ammonia Nitrogen)	2021/11/03		107	%	80 - 120
7677000	MCN	Method Blank	Nitrogen (Ammonia Nitrogen)	2021/11/03	<0.050		mg/L	
7677000	MCN	RPD	Nitrogen (Ammonia Nitrogen)	2021/11/04	0.33		%	20
7677001	MCN	Matrix Spike	Nitrogen (Ammonia Nitrogen)	2021/11/04		98	%	80 - 120



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### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7677001	MCN	Spiked Blank	Nitrogen (Ammonia Nitrogen)	2021/11/04		107	%	80 - 120
7677001	MCN	Method Blank	Nitrogen (Ammonia Nitrogen)	2021/11/04	<0.050		mg/L	
7677001	MCN	RPD	Nitrogen (Ammonia Nitrogen)	2021/11/04	19		%	20
7677012	SHW	QC Standard	Turbidity	2021/11/03		102	%	80 - 120
7677012	SHW	Spiked Blank	Turbidity	2021/11/03		103	%	80 - 120
7677012	SHW	Method Blank	Turbidity	2021/11/03	<0.10		NTU	
7677012	SHW	RPD [RBU247-05]	Turbidity	2021/11/03	1.4		%	20
7677013	SHW	QC Standard	Turbidity	2021/11/03		100	%	80 - 120
7677013	SHW	Spiked Blank	Turbidity	2021/11/03		103	%	80 - 120
7677013	SHW	Method Blank	Turbidity	2021/11/03	<0.10		NTU	
7677013	SHW	RPD [RBU254-05]	Turbidity	2021/11/03	1.4		%	20
7677386	ABP	Matrix Spike [RBU236-03]	Total Cyanide (CN)	2021/11/03		107	%	80 - 120
7677386	ABP	Spiked Blank	Total Cyanide (CN)	2021/11/03		104	%	80 - 120
7677386	ABP	Method Blank	Total Cyanide (CN)	2021/11/03	<0.0050		mg/L	
7677386	ABP	RPD [RBU236-03]	Total Cyanide (CN)	2021/11/03	NC		%	20
7677389	ABP	Matrix Spike [RBU236-03]	WAD Cyanide (Free)	2021/11/03		108	%	80 - 120
7677389	ABP	Spiked Blank	WAD Cyanide (Free)	2021/11/03		102	%	80 - 120
7677389	ABP	Method Blank	WAD Cyanide (Free)	2021/11/03	<0.0010		mg/L	
7677389	ABP	RPD [RBU236-03]	WAD Cyanide (Free)	2021/11/03	NC		%	20
7677408	NHU	Matrix Spike	Dissolved Mercury (Hg)	2021/11/04		99	%	80 - 120
7677408	NHU	Spiked Blank	Dissolved Mercury (Hg)	2021/11/04		101	%	80 - 120
7677408	NHU	Method Blank	Dissolved Mercury (Hg)	2021/11/04	<0.013		ug/L	
7677408	NHU	RPD	Dissolved Mercury (Hg)	2021/11/04	NC		%	20
7677428	ABP	Matrix Spike	Total Cyanide (CN)	2021/11/03		101	%	80 - 120
7677428	ABP	Spiked Blank	Total Cyanide (CN)	2021/11/03		104	%	80 - 120
7677428	ABP	Method Blank	Total Cyanide (CN)	2021/11/03	<0.0050		mg/L	
7677428	ABP	RPD	Total Cyanide (CN)	2021/11/03	NC		%	20
7677429	ABP	Matrix Spike	WAD Cyanide (Free)	2021/11/03		103	%	80 - 120
7677429	ABP	Spiked Blank	WAD Cyanide (Free)	2021/11/03		105	%	80 - 120
7677429	ABP	Method Blank	WAD Cyanide (Free)	2021/11/03	<0.0010		mg/L	
7677429	ABP	RPD	WAD Cyanide (Free)	2021/11/03	NC		%	20
7677462	BAN	Matrix Spike [RBU247-06]	Dissolved Aluminum (Al)	2021/11/03		98	%	80 - 120
			Dissolved Antimony (Sb)	2021/11/03		97	%	80 - 120
			Dissolved Arsenic (As)	2021/11/03		NC	%	80 - 120
			Dissolved Barium (Ba)	2021/11/03		98	%	80 - 120
			Dissolved Beryllium (Be)	2021/11/03		103	%	80 - 120
			Dissolved Bismuth (Bi)	2021/11/03		100	%	80 - 120
			Dissolved Boron (B)	2021/11/03		101	%	80 - 120
			Dissolved Cadmium (Cd)	2021/11/03		100	%	80 - 120
			Dissolved Calcium (Ca)	2021/11/03		104	%	80 - 120
			Dissolved Chromium (Cr)	2021/11/03		99	%	80 - 120
			Dissolved Cobalt (Co)	2021/11/03		100	%	80 - 120
			Dissolved Copper (Cu)	2021/11/03		100	%	80 - 120
			Dissolved Iron (Fe)	2021/11/03		102	%	80 - 120
			Dissolved Lead (Pb)	2021/11/03		100	%	80 - 120
			Dissolved Magnesium (Mg)	2021/11/03		101	%	80 - 120
			Dissolved Manganese (Mn)	2021/11/03		101	%	80 - 120
			Dissolved Molybdenum (Mo)	2021/11/03		100	%	80 - 120
			Dissolved Nickel (Ni)	2021/11/03		99	%	80 - 120
			Dissolved Phosphorus (P)	2021/11/03		104	%	80 - 120
			Dissolved Potassium (K)	2021/11/03		98	%	80 - 120
			Dissolved Selenium (Se)	2021/11/03		99	%	80 - 120
			Dissolved Silver (Ag)	2021/11/03		93	%	80 - 120



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Sampler Initials: JV

### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Sodium (Na)	2021/11/03		NC	%	80 - 120
			Dissolved Strontium (Sr)	2021/11/03		NC	%	80 - 120
			Dissolved Thallium (Tl)	2021/11/03		98	%	80 - 120
			Dissolved Tin (Sn)	2021/11/03		97	%	80 - 120
			Dissolved Titanium (Ti)	2021/11/03		102	%	80 - 120
			Dissolved Uranium (U)	2021/11/03		104	%	80 - 120
			Dissolved Vanadium (V)	2021/11/03		99	%	80 - 120
			Dissolved Zinc (Zn)	2021/11/03		99	%	80 - 120
7677462	BAN	Spiked Blank	Dissolved Aluminum (Al)	2021/11/03		102	%	80 - 120
			Dissolved Antimony (Sb)	2021/11/03		98	%	80 - 120
			Dissolved Arsenic (As)	2021/11/03		95	%	80 - 120
			Dissolved Barium (Ba)	2021/11/03		98	%	80 - 120
			Dissolved Beryllium (Be)	2021/11/03		102	%	80 - 120
			Dissolved Bismuth (Bi)	2021/11/03		100	%	80 - 120
			Dissolved Boron (B)	2021/11/03		98	%	80 - 120
			Dissolved Cadmium (Cd)	2021/11/03		98	%	80 - 120
			Dissolved Calcium (Ca)	2021/11/03		104	%	80 - 120
			Dissolved Chromium (Cr)	2021/11/03		100	%	80 - 120
			Dissolved Cobalt (Co)	2021/11/03		100	%	80 - 120
			Dissolved Copper (Cu)	2021/11/03		101	%	80 - 120
			Dissolved Iron (Fe)	2021/11/03		104	%	80 - 120
			Dissolved Lead (Pb)	2021/11/03		100	%	80 - 120
			Dissolved Magnesium (Mg)	2021/11/03		103	%	80 - 120
			Dissolved Manganese (Mn)	2021/11/03		102	%	80 - 120
			Dissolved Molybdenum (Mo)	2021/11/03		99	%	80 - 120
			Dissolved Nickel (Ni)	2021/11/03		102	%	80 - 120
			Dissolved Phosphorus (P)	2021/11/03		104	%	80 - 120
			Dissolved Potassium (K)	2021/11/03		102	%	80 - 120
			Dissolved Selenium (Se)	2021/11/03		99	%	80 - 120
			Dissolved Silver (Ag)	2021/11/03		97	%	80 - 120
			Dissolved Sodium (Na)	2021/11/03		100	%	80 - 120
			Dissolved Strontium (Sr)	2021/11/03		98	%	80 - 120
			Dissolved Thallium (Tl)	2021/11/03		100	%	80 - 120
			Dissolved Tin (Sn)	2021/11/03		98	%	80 - 120
			Dissolved Titanium (Ti)	2021/11/03		102	%	80 - 120
			Dissolved Uranium (U)	2021/11/03		105	%	80 - 120
			Dissolved Vanadium (V)	2021/11/03		100	%	80 - 120
			Dissolved Zinc (Zn)	2021/11/03		101	%	80 - 120
7677462	BAN	Method Blank	Dissolved Aluminum (Al)	2021/11/03	<5.0		ug/L	
			Dissolved Antimony (Sb)	2021/11/03	<1.0		ug/L	
			Dissolved Arsenic (As)	2021/11/03	<1.0		ug/L	
			Dissolved Barium (Ba)	2021/11/03	<1.0		ug/L	
			Dissolved Beryllium (Be)	2021/11/03	<0.10		ug/L	
			Dissolved Bismuth (Bi)	2021/11/03	<2.0		ug/L	
			Dissolved Boron (B)	2021/11/03	<50		ug/L	
			Dissolved Cadmium (Cd)	2021/11/03	<0.010		ug/L	
			Dissolved Calcium (Ca)	2021/11/03	<100		ug/L	
			Dissolved Chromium (Cr)	2021/11/03	<1.0		ug/L	
			Dissolved Cobalt (Co)	2021/11/03	<0.40		ug/L	
			Dissolved Copper (Cu)	2021/11/03	<0.50		ug/L	
			Dissolved Iron (Fe)	2021/11/03	<50		ug/L	
			Dissolved Lead (Pb)	2021/11/03	<0.50		ug/L	
			Dissolved Magnesium (Mg)	2021/11/03	<100		ug/L	



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### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Manganese (Mn)	2021/11/03	<2.0		ug/L	
			Dissolved Molybdenum (Mo)	2021/11/03	<2.0		ug/L	
			Dissolved Nickel (Ni)	2021/11/03	<2.0		ug/L	
			Dissolved Phosphorus (P)	2021/11/03	<100		ug/L	
			Dissolved Potassium (K)	2021/11/03	<100		ug/L	
			Dissolved Selenium (Se)	2021/11/03	<0.50		ug/L	
			Dissolved Silver (Ag)	2021/11/03	<0.10		ug/L	
			Dissolved Sodium (Na)	2021/11/03	<100		ug/L	
			Dissolved Strontium (Sr)	2021/11/03	<2.0		ug/L	
			Dissolved Thallium (Tl)	2021/11/03	<0.10		ug/L	
			Dissolved Tin (Sn)	2021/11/03	<2.0		ug/L	
			Dissolved Titanium (Ti)	2021/11/03	<2.0		ug/L	
			Dissolved Uranium (U)	2021/11/03	<0.10		ug/L	
			Dissolved Vanadium (V)	2021/11/03	<2.0		ug/L	
			Dissolved Zinc (Zn)	2021/11/03	<5.0		ug/L	
7677462	BAN	RPD [RBU247-06]	Dissolved Aluminum (Al)	2021/11/03	2.8		%	20
			Dissolved Antimony (Sb)	2021/11/03	NC		%	20
			Dissolved Arsenic (As)	2021/11/03	2.0		%	20
			Dissolved Barium (Ba)	2021/11/03	2.6		%	20
			Dissolved Beryllium (Be)	2021/11/03	NC		%	20
			Dissolved Bismuth (Bi)	2021/11/03	NC		%	20
			Dissolved Boron (B)	2021/11/03	1.9		%	20
			Dissolved Cadmium (Cd)	2021/11/03	NC		%	20
			Dissolved Calcium (Ca)	2021/11/03	0.27		%	20
			Dissolved Chromium (Cr)	2021/11/03	NC		%	20
			Dissolved Cobalt (Co)	2021/11/03	NC		%	20
			Dissolved Copper (Cu)	2021/11/03	3.0		%	20
			Dissolved Iron (Fe)	2021/11/03	0.40		%	20
			Dissolved Lead (Pb)	2021/11/03	NC		%	20
			Dissolved Magnesium (Mg)	2021/11/03	2.2		%	20
			Dissolved Manganese (Mn)	2021/11/03	0.46		%	20
			Dissolved Molybdenum (Mo)	2021/11/03	3.8		%	20
			Dissolved Nickel (Ni)	2021/11/03	NC		%	20
			Dissolved Phosphorus (P)	2021/11/03	NC		%	20
			Dissolved Potassium (K)	2021/11/03	1.8		%	20
			Dissolved Selenium (Se)	2021/11/03	NC		%	20
			Dissolved Silver (Ag)	2021/11/03	NC		%	20
			Dissolved Sodium (Na)	2021/11/03	0.86		%	20
			Dissolved Strontium (Sr)	2021/11/03	0.68		%	20
			Dissolved Thallium (Tl)	2021/11/03	NC		%	20
			Dissolved Tin (Sn)	2021/11/03	NC		%	20
			Dissolved Titanium (Ti)	2021/11/03	2.3		%	20
			Dissolved Uranium (U)	2021/11/03	2.5		%	20
			Dissolved Vanadium (V)	2021/11/03	NC		%	20
			Dissolved Zinc (Zn)	2021/11/03	NC		%	20
7679685	SHW	Spiked Blank	Conductivity	2021/11/04		101	%	80 - 120
7679685	SHW	Method Blank	Conductivity	2021/11/04	<1.0		uS/cm	
7679685	SHW	RPD	Conductivity	2021/11/04	1.8		%	10
7679686	SHW	Spiked Blank	pH	2021/11/04		100	%	97 - 103
7679686	SHW	RPD	pH	2021/11/04	0.49		%	N/A
7682571	EMT	Matrix Spike	Total Alkalinity (Total as CaCO3)	2021/11/08		NC	%	80 - 120
7682571	EMT	Spiked Blank	Total Alkalinity (Total as CaCO3)	2021/11/08		118	%	80 - 120
7682571	EMT	Method Blank	Total Alkalinity (Total as CaCO3)	2021/11/08	<5.0		mg/L	





### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7682571	EMT	RPD	Total Alkalinity (Total as CaCO3)	2021/11/08	8.4		%	20
7682609	EMT	Matrix Spike	Dissolved Chloride (Cl-)	2021/11/08		NC	%	80 - 120
7682609	EMT	Spiked Blank	Dissolved Chloride (Cl-)	2021/11/08		98	%	80 - 120
7682609	EMT	Method Blank	Dissolved Chloride (Cl-)	2021/11/08	<1.0		mg/L	
7682609	EMT	RPD	Dissolved Chloride (Cl-)	2021/11/08	0.25		%	20
7682611	EMT	Matrix Spike	Dissolved Sulphate (SO4)	2021/11/08		NC	%	80 - 120
7682611	EMT	Spiked Blank	Dissolved Sulphate (SO4)	2021/11/08		98	%	80 - 120
7682611	EMT	Method Blank	Dissolved Sulphate (SO4)	2021/11/08	<2.0		mg/L	
7682611	EMT	RPD	Dissolved Sulphate (SO4)	2021/11/08	0.037		%	20
7682613	EMT	Matrix Spike	Reactive Silica (SiO2)	2021/11/08		96	%	80 - 120
7682613	EMT	Spiked Blank	Reactive Silica (SiO2)	2021/11/08		96	%	80 - 120
7682613	EMT	Method Blank	Reactive Silica (SiO2)	2021/11/08	<0.50		mg/L	
7682613	EMT	RPD	Reactive Silica (SiO2)	2021/11/08	0.48		%	20
7682614	EMT	Spiked Blank	Colour	2021/11/08		92	%	80 - 120
7682614	EMT	Method Blank	Colour	2021/11/08	<5.0		TCU	
7682614	EMT	RPD	Colour	2021/11/08	6.1		%	20
7682615	EMT	Matrix Spike	Orthophosphate (P)	2021/11/08		NC	%	80 - 120
7682615	EMT	Spiked Blank	Orthophosphate (P)	2021/11/08		100	%	80 - 120
7682615	EMT	Method Blank	Orthophosphate (P)	2021/11/08	<0.010		mg/L	
7682615	EMT	RPD	Orthophosphate (P)	2021/11/08	9.4		%	20
7682617	EMT	Matrix Spike	Nitrate + Nitrite (N)	2021/11/08		92	%	80 - 120
7682617	EMT	Spiked Blank	Nitrate + Nitrite (N)	2021/11/08		97	%	80 - 120
7682617	EMT	Method Blank	Nitrate + Nitrite (N)	2021/11/08	<0.050		mg/L	
7682617	EMT	RPD	Nitrate + Nitrite (N)	2021/11/08	10		%	20
7682618	EMT	Matrix Spike	Nitrite (N)	2021/11/08		101	%	80 - 120
7682618	EMT	Spiked Blank	Nitrite (N)	2021/11/08		107	%	80 - 120
7682618	EMT	Method Blank	Nitrite (N)	2021/11/08	<0.010		mg/L	
7682618	EMT	RPD	Nitrite (N)	2021/11/08	NC		%	20
7682636	EMT	Matrix Spike	Total Alkalinity (Total as CaCO3)	2021/11/08		NC	%	80 - 120
7682636	EMT	Spiked Blank	Total Alkalinity (Total as CaCO3)	2021/11/08		113	%	80 - 120
7682636	EMT	Method Blank	Total Alkalinity (Total as CaCO3)	2021/11/08	<5.0		mg/L	
7682636	EMT	RPD	Total Alkalinity (Total as CaCO3)	2021/11/08	2.6		%	20
7682638	EMT	Matrix Spike	Dissolved Chloride (Cl-)	2021/11/08		95	%	80 - 120
7682638	EMT	Spiked Blank	Dissolved Chloride (Cl-)	2021/11/08		98	%	80 - 120
7682638	EMT	Method Blank	Dissolved Chloride (Cl-)	2021/11/08	<1.0		mg/L	
7682638	EMT	RPD	Dissolved Chloride (Cl-)	2021/11/08	2.6		%	20
7682640	EMT	Matrix Spike	Dissolved Sulphate (SO4)	2021/11/08		96	%	80 - 120
7682640	EMT	Spiked Blank	Dissolved Sulphate (SO4)	2021/11/08		99	%	80 - 120
7682640	EMT	Method Blank	Dissolved Sulphate (SO4)	2021/11/08	<2.0		mg/L	
7682640	EMT	RPD	Dissolved Sulphate (SO4)	2021/11/08	13		%	20
7682642	EMT	Matrix Spike	Reactive Silica (SiO2)	2021/11/08		88	%	80 - 120
7682642	EMT	Spiked Blank	Reactive Silica (SiO2)	2021/11/08		98	%	80 - 120
7682642	EMT	Method Blank	Reactive Silica (SiO2)	2021/11/08	<0.50		mg/L	
7682642	EMT	RPD	Reactive Silica (SiO2)	2021/11/08	0.10		%	20
7682644	EMT	Spiked Blank	Colour	2021/11/08		95	%	80 - 120
7682644	EMT	Method Blank	Colour	2021/11/08	<5.0		TCU	
7682644	EMT	RPD	Colour	2021/11/08	NC		%	20
7682647	EMT	Matrix Spike	Orthophosphate (P)	2021/11/08		93	%	80 - 120
7682647	EMT	Spiked Blank	Orthophosphate (P)	2021/11/08		101	%	80 - 120
7682647	EMT	Method Blank	Orthophosphate (P)	2021/11/08	<0.010		mg/L	
7682647	EMT	RPD	Orthophosphate (P)	2021/11/08	3.5		%	20
7682648	EMT	Matrix Spike	Nitrate + Nitrite (N)	2021/11/08		96	%	80 - 120
7682648	EMT	Spiked Blank	Nitrate + Nitrite (N)	2021/11/08		97	%	80 - 120



**QUALITY ASSURANCE REPORT(CONT'D)**

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7682648	EMT	Method Blank	Nitrate + Nitrite (N)	2021/11/08	<0.050		mg/L	
7682648	EMT	RPD	Nitrate + Nitrite (N)	2021/11/08	1.9		%	20
7682649	EMT	Matrix Spike	Nitrite (N)	2021/11/08		99	%	80 - 120
7682649	EMT	Spiked Blank	Nitrite (N)	2021/11/08		107	%	80 - 120
7682649	EMT	Method Blank	Nitrite (N)	2021/11/08	<0.010		mg/L	
7682649	EMT	RPD	Nitrite (N)	2021/11/08	19		%	20
7682694	EMT	Matrix Spike [RBU254-05]	Total Alkalinity (Total as CaCO3)	2021/11/08		107	%	80 - 120
7682694	EMT	Spiked Blank	Total Alkalinity (Total as CaCO3)	2021/11/08		116	%	80 - 120
7682694	EMT	Method Blank	Total Alkalinity (Total as CaCO3)	2021/11/08	<5.0		mg/L	
7682694	EMT	RPD [RBU254-05]	Total Alkalinity (Total as CaCO3)	2021/11/08	11		%	20
7682742	EMT	Matrix Spike [RBU254-05]	Dissolved Chloride (Cl-)	2021/11/08		97	%	80 - 120
7682742	EMT	Spiked Blank	Dissolved Chloride (Cl-)	2021/11/08		97	%	80 - 120
7682742	EMT	Method Blank	Dissolved Chloride (Cl-)	2021/11/08	<1.0		mg/L	
7682742	EMT	RPD [RBU254-05]	Dissolved Chloride (Cl-)	2021/11/08	1.8		%	20
7682748	EMT	Matrix Spike [RBU254-05]	Dissolved Sulphate (SO4)	2021/11/08		95	%	80 - 120
7682748	EMT	Spiked Blank	Dissolved Sulphate (SO4)	2021/11/08		94	%	80 - 120
7682748	EMT	Method Blank	Dissolved Sulphate (SO4)	2021/11/08	<2.0		mg/L	
7682748	EMT	RPD [RBU254-05]	Dissolved Sulphate (SO4)	2021/11/08	7.8		%	20
7682750	EMT	Matrix Spike [RBU254-05]	Reactive Silica (SiO2)	2021/11/08		91	%	80 - 120
7682750	EMT	Spiked Blank	Reactive Silica (SiO2)	2021/11/08		94	%	80 - 120
7682750	EMT	Method Blank	Reactive Silica (SiO2)	2021/11/08	<0.50		mg/L	
7682750	EMT	RPD [RBU254-05]	Reactive Silica (SiO2)	2021/11/08	0.57		%	20
7682752	EMT	Spiked Blank	Colour	2021/11/08		99	%	80 - 120
7682752	EMT	Method Blank	Colour	2021/11/08	<5.0		TCU	
7682752	EMT	RPD [RBU254-05]	Colour	2021/11/08	NC		%	20
7682755	EMT	Matrix Spike [RBU254-05]	Orthophosphate (P)	2021/11/08		93	%	80 - 120
7682755	EMT	Spiked Blank	Orthophosphate (P)	2021/11/08		105	%	80 - 120
7682755	EMT	Method Blank	Orthophosphate (P)	2021/11/08	<0.010		mg/L	
7682755	EMT	RPD [RBU254-05]	Orthophosphate (P)	2021/11/08	NC		%	20
7682757	EMT	Matrix Spike [RBU254-05]	Nitrate + Nitrite (N)	2021/11/08		93	%	80 - 120
7682757	EMT	Spiked Blank	Nitrate + Nitrite (N)	2021/11/08		96	%	80 - 120
7682757	EMT	Method Blank	Nitrate + Nitrite (N)	2021/11/08	<0.050		mg/L	
7682757	EMT	RPD [RBU254-05]	Nitrate + Nitrite (N)	2021/11/08	NC		%	20
7682768	EMT	Matrix Spike [RBU254-05]	Nitrite (N)	2021/11/08		100	%	80 - 120
7682768	EMT	Spiked Blank	Nitrite (N)	2021/11/08		106	%	80 - 120
7682768	EMT	Method Blank	Nitrite (N)	2021/11/08	<0.010		mg/L	
7682768	EMT	RPD [RBU254-05]	Nitrite (N)	2021/11/08	NC		%	20
7686152	EMT	Matrix Spike [RBU257-05]	Total Alkalinity (Total as CaCO3)	2021/11/08		NC	%	80 - 120
7686152	EMT	Spiked Blank	Total Alkalinity (Total as CaCO3)	2021/11/08		112	%	80 - 120
7686152	EMT	Method Blank	Total Alkalinity (Total as CaCO3)	2021/11/08	<5.0		mg/L	
7686152	EMT	RPD [RBU257-05]	Total Alkalinity (Total as CaCO3)	2021/11/08	8.8		%	20
7686158	EMT	Matrix Spike [RBU257-05]	Dissolved Chloride (Cl-)	2021/11/08		96	%	80 - 120
7686158	EMT	Spiked Blank	Dissolved Chloride (Cl-)	2021/11/08		97	%	80 - 120
7686158	EMT	Method Blank	Dissolved Chloride (Cl-)	2021/11/08	<1.0		mg/L	
7686158	EMT	RPD [RBU257-05]	Dissolved Chloride (Cl-)	2021/11/08	0.31		%	20
7686160	EMT	Matrix Spike [RBU257-05]	Dissolved Sulphate (SO4)	2021/11/08		96	%	80 - 120
7686160	EMT	Spiked Blank	Dissolved Sulphate (SO4)	2021/11/08		98	%	80 - 120
7686160	EMT	Method Blank	Dissolved Sulphate (SO4)	2021/11/08	<2.0		mg/L	
7686160	EMT	RPD [RBU257-05]	Dissolved Sulphate (SO4)	2021/11/08	2.0		%	20
7686161	EMT	Matrix Spike [RBU257-05]	Reactive Silica (SiO2)	2021/11/08		92	%	80 - 120
7686161	EMT	Spiked Blank	Reactive Silica (SiO2)	2021/11/08		97	%	80 - 120
7686161	EMT	Method Blank	Reactive Silica (SiO2)	2021/11/08	<0.50		mg/L	
7686161	EMT	RPD [RBU257-05]	Reactive Silica (SiO2)	2021/11/08	0.098		%	20



BUREAU  
VERITAS

Bureau Veritas Job #: C1V7201  
Report Date: 2021/11/11

Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: JV

### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7686164	EMT	Spiked Blank	Colour	2021/11/08		98	%	80 - 120
7686164	EMT	Method Blank	Colour	2021/11/08	<5.0		TCU	
7686164	EMT	RPD [RBU257-05]	Colour	2021/11/08	1.8		%	20
7686165	EMT	Matrix Spike [RBU257-05]	Orthophosphate (P)	2021/11/08		90	%	80 - 120
7686165	EMT	Spiked Blank	Orthophosphate (P)	2021/11/08		99	%	80 - 120
7686165	EMT	Method Blank	Orthophosphate (P)	2021/11/08	<0.010		mg/L	
7686165	EMT	RPD [RBU257-05]	Orthophosphate (P)	2021/11/08	5.8		%	20
7686169	EMT	Matrix Spike [RBU257-05]	Nitrate + Nitrite (N)	2021/11/08		94	%	80 - 120
7686169	EMT	Spiked Blank	Nitrate + Nitrite (N)	2021/11/08		95	%	80 - 120
7686169	EMT	Method Blank	Nitrate + Nitrite (N)	2021/11/08	<0.050		mg/L	
7686169	EMT	RPD [RBU257-05]	Nitrate + Nitrite (N)	2021/11/08	NC		%	20
7686171	EMT	Matrix Spike [RBU257-05]	Nitrite (N)	2021/11/08		100	%	80 - 120
7686171	EMT	Spiked Blank	Nitrite (N)	2021/11/08		105	%	80 - 120
7686171	EMT	Method Blank	Nitrite (N)	2021/11/08	<0.010		mg/L	
7686171	EMT	RPD [RBU257-05]	Nitrite (N)	2021/11/08	NC		%	20
7686178	MCN	Matrix Spike	Nitrogen (Ammonia Nitrogen)	2021/11/08		98	%	80 - 120
7686178	MCN	Spiked Blank	Nitrogen (Ammonia Nitrogen)	2021/11/08		102	%	80 - 120
7686178	MCN	Method Blank	Nitrogen (Ammonia Nitrogen)	2021/11/08	<0.050		mg/L	
7686178	MCN	RPD	Nitrogen (Ammonia Nitrogen)	2021/11/08	NC		%	20
7691646	SSV	Matrix Spike	Dissolved Phosphorus	2021/11/10		97	%	80 - 120
7691646	SSV	QC Standard	Dissolved Phosphorus	2021/11/10		94	%	80 - 120
7691646	SSV	Spiked Blank	Dissolved Phosphorus	2021/11/10		98	%	80 - 120
7691646	SSV	Method Blank	Dissolved Phosphorus	2021/11/10	<0.020		mg/L	
7691646	SSV	RPD	Dissolved Phosphorus	2021/11/10	NC		%	20
7691720	SSV	Matrix Spike [RBU236-14]	Dissolved Phosphorus	2021/11/10		101	%	80 - 120
7691720	SSV	QC Standard	Dissolved Phosphorus	2021/11/10		97	%	80 - 120
7691720	SSV	Spiked Blank	Dissolved Phosphorus	2021/11/10		101	%	80 - 120
7691720	SSV	Method Blank	Dissolved Phosphorus	2021/11/10	<0.020		mg/L	
7691720	SSV	RPD [RBU236-14]	Dissolved Phosphorus	2021/11/10	NC		%	20

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).



BUREAU  
VERITAS

Bureau Veritas Job #: C1V7201  
Report Date: 2021/11/11

Anaconda Mining Inc  
Client Project #: GOLDBORO  
Your P.O. #: 0267  
Sampler Initials: JV

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

\_\_\_\_\_  
Anastasiya Hamanov, Scientific Specialist

\_\_\_\_\_  
Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

\_\_\_\_\_  
Mike MacGillivray, Scientific Specialist (Inorganics)

\_\_\_\_\_  
Phil Deveau, Scientific Specialist (Organics)

\_\_\_\_\_  
Automated Statchk

\_\_\_\_\_  
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports.  
For Service Group specific validation please refer to the Validation Signature Page.



Your P.O. #: 0267  
 Site Location: GOLDBORO  
 Your C.O.C. #: N/A

**Attention: Derek Bullock**

Anaconda Mining Inc  
 Goldboro Gold Mine  
 570 Goldbrook Road  
 Goldboro, NS  
 Canada BOH 1L0

**Report Date: 2022/01/27**  
 Report #: R6979590  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1Z7283**

**Received: 2021/12/17, 16:33**

Sample Matrix: Water  
 # Samples Received: 42

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Carbonate, Bicarbonate and Hydroxide	7	N/A	2022/01/04	N/A	SM 23 4500-CO2 D
Carbonate, Bicarbonate and Hydroxide	31	N/A	2021/12/28	N/A	SM 23 4500-CO2 D
Carbonate, Bicarbonate and Hydroxide	4	N/A	2021/12/30	N/A	SM 23 4500-CO2 D
Alkalinity	19	N/A	2022/01/07	ATL SOP 00013	EPA 310.2 R1974 m
Alkalinity	23	N/A	2022/01/08	ATL SOP 00013	EPA 310.2 R1974 m
Chloride	41	N/A	2022/01/07	ATL SOP 00014	SM 23 4500-Cl- E m
Chloride	1	N/A	2022/01/08	ATL SOP 00014	SM 23 4500-Cl- E m
Chemical Oxygen Demand (COD)	2	2021/12/23	2021/12/23	ATL SOP 00042	SM 23 5220D m
Chemical Oxygen Demand (COD)	40	2021/12/29	2021/12/29	ATL SOP 00042	SM 23 5220D m
Colour	12	N/A	2022/01/17	ATL SOP 00020	SM 23 2120C m
Colour	30	N/A	2022/01/07	ATL SOP 00020	SM 23 2120C m
Free (WAD) Cyanide (1)	42	N/A	2021/12/22	CAM SOP-00457	OMOE E3015 m
Total Cyanide (1)	42	2021/12/23	2021/12/22	CAM SOP-00457	OMOE E3015 5 m
Organic carbon - Diss (DOC) (as rec'd) (2)	18	N/A	2021/12/21	ATL SOP 00203	SM 23 5310B m
Organic carbon - Diss (DOC) (as rec'd) (2)	21	N/A	2021/12/22	ATL SOP 00203	SM 23 5310B m
Organic carbon - Diss (DOC) (as rec'd) (2)	2	N/A	2021/12/28	ATL SOP 00203	SM 23 5310B m
Organic carbon - Diss (DOC) (as rec'd) (2)	1	N/A	2021/12/31	ATL SOP 00203	SM 23 5310B m
Conductance - water	31	N/A	2021/12/27	ATL SOP 00004	SM 23 2510B m
Conductance - water	4	N/A	2021/12/29	ATL SOP 00004	SM 23 2510B m
Conductance - water	7	N/A	2021/12/31	ATL SOP 00004	SM 23 2510B m
TEH in Water (PIRI)	26	2021/12/21	2021/12/21	ATL SOP 00113	Atl. RBCA v3.1 m
TEH in Water (PIRI)	13	2021/12/21	2021/12/22	ATL SOP 00113	Atl. RBCA v3.1 m
TEH in Water (PIRI)	2	2021/12/22	2021/12/22	ATL SOP 00113	Atl. RBCA v3.1 m
TEH in Water (PIRI)	1	2021/12/23	2021/12/23	ATL SOP 00113	Atl. RBCA v3.1 m
Hardness (calculated as CaCO3)	11	N/A	2021/12/24	ATL SOP 00048	Auto Calc
Hardness (calculated as CaCO3)	2	N/A	2021/12/28	ATL SOP 00048	Auto Calc
Hardness (calculated as CaCO3)	26	N/A	2021/12/29	ATL SOP 00048	Auto Calc
Hardness (calculated as CaCO3)	3	N/A	2021/12/30	ATL SOP 00048	Auto Calc
Mercury - Dissolved (CVAA,LL)	20	2022/01/12	2022/01/12	ATL SOP 00026	EPA 245.1 R3 m
Mercury - Dissolved (CVAA,LL)	18	2022/01/13	2022/01/14	ATL SOP 00026	EPA 245.1 R3 m
Dissolved Mercury (low level) (1)	3	2022/01/18	2022/01/19	CAM SOP-00453	EPA 7470 m



Your P.O. #: 0267  
 Site Location: GOLDBORO  
 Your C.O.C. #: N/A

**Attention: Derek Bullock**

Anaconda Mining Inc  
 Goldboro Gold Mine  
 570 Goldbrook Road  
 Goldboro, NS  
 Canada BOH 1L0

**Report Date: 2022/01/27**  
 Report #: R6979590  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1Z7283**  
**Received: 2021/12/17, 16:33**

Sample Matrix: Water  
 # Samples Received: 42

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Dissolved Mercury (low level) (1)	1	2022/01/26	2022/01/26	CAM SOP-00453	EPA 7470 m
Mercury (low level) (1)	3	2022/01/20	2022/01/24	CAM SOP-00453	EPA 7470 m
Mercury - Total (CVAA,LL)	1	2022/01/11	2022/01/11	ATL SOP 00026	EPA 245.1 R3 m
Mercury - Total (CVAA,LL)	37	2022/01/13	2022/01/14	ATL SOP 00026	EPA 245.1 R3 m
Metals Water Diss. MS (3)	2	N/A	2021/12/28	ATL SOP 00058	EPA 6020B R2 m
Metals Water Diss. MS (as rec'd)	11	N/A	2021/12/23	ATL SOP 00058	EPA 6020B R2 m
Metals Water Diss. MS (as rec'd)	2	N/A	2021/12/24	ATL SOP 00058	EPA 6020B R2 m
Metals Water Diss. MS (as rec'd)	24	N/A	2021/12/28	ATL SOP 00058	EPA 6020B R2 m
Metals Water Diss. MS (as rec'd)	3	N/A	2021/12/29	ATL SOP 00058	EPA 6020B R2 m
Ion Balance (% Difference)	42	N/A	2022/01/17	N/A	Auto Calc.
Anion and Cation Sum	10	N/A	2022/01/03	N/A	Auto Calc.
Anion and Cation Sum	7	N/A	2022/01/04	N/A	Auto Calc.
Anion and Cation Sum	11	N/A	2021/12/28	N/A	Auto Calc.
Anion and Cation Sum	11	N/A	2021/12/29	N/A	Auto Calc.
Anion and Cation Sum	3	N/A	2021/12/30	N/A	Auto Calc.
Nitrogen Ammonia - water	14	N/A	2021/12/22	ATL SOP 00015	EPA 350.1 R2 m
Nitrogen Ammonia - water	28	N/A	2021/12/23	ATL SOP 00015	EPA 350.1 R2 m
Nitrogen - Nitrate + Nitrite	42	N/A	2022/01/07	ATL SOP 00016	USGS I-2547-11m
Nitrogen - Nitrite	41	N/A	2022/01/07	ATL SOP 00017	SM 23 4500-NO2- B m
Nitrogen - Nitrite	1	N/A	2022/01/08	ATL SOP 00017	SM 23 4500-NO2- B m
Nitrogen - Nitrate (as N)	42	N/A	2022/01/17	ATL SOP 00018	ASTM D3867-16
pH (4)	31	N/A	2021/12/27	ATL SOP 00003	SM 23 4500-H+ B m
pH (4)	4	N/A	2021/12/29	ATL SOP 00003	SM 23 4500-H+ B m
pH (4)	7	N/A	2021/12/31	ATL SOP 00003	SM 23 4500-H+ B m
Phosphorus - ortho	17	N/A	2022/01/07	ATL SOP 00021	SM 23 4500-P E m
Phosphorus - ortho	25	N/A	2022/01/08	ATL SOP 00021	SM 23 4500-P E m
Sat. pH and Langelier Index (@ 20C)	42	N/A	2022/01/17	ATL SOP 00049	Auto Calc.
Sat. pH and Langelier Index (@ 4C)	42	N/A	2022/01/17	ATL SOP 00049	Auto Calc.
Reactive Silica	41	N/A	2022/01/07	ATL SOP 00022	EPA 366.0 m
Reactive Silica	1	N/A	2022/01/08	ATL SOP 00022	EPA 366.0 m
Sulphate	41	N/A	2022/01/07	ATL SOP 00023	ASTM D516-16 m



Your P.O. #: 0267  
 Site Location: GOLDBORO  
 Your C.O.C. #: N/A

**Attention: Derek Bullock**

Anaconda Mining Inc  
 Goldboro Gold Mine  
 570 Goldbrook Road  
 Goldboro, NS  
 Canada BOH 1L0

**Report Date: 2022/01/27**  
 Report #: R6979590  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1Z7283**  
**Received: 2021/12/17, 16:33**

Sample Matrix: Water  
 # Samples Received: 42

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Sulphate	1	N/A	2022/01/08	ATL SOP 00023	ASTM D516-16 m
Total Dissolved Solids (TDS calc)	42	N/A	2022/01/17	N/A	Auto Calc.
Organic carbon - Total (TOC) (5)	1	N/A	2021/12/23	ATL SOP 00203	SM 23 5310B m
Organic carbon - Total (TOC) (5)	24	N/A	2021/12/24	ATL SOP 00203	SM 23 5310B m
Organic carbon - Total (TOC) (5)	17	N/A	2021/12/29	ATL SOP 00203	SM 23 5310B m
Dissolved Phosphorus (1)	20	2021/12/22	2021/12/31	CAM SOP-00407	SM 23 4500 P B H m
Dissolved Phosphorus (1)	20	2021/12/23	2022/01/04	CAM SOP-00407	SM 23 4500 P B H m
Dissolved Phosphorus (1)	2	2021/12/24	2022/01/06	CAM SOP-00407	SM 23 4500 P B H m
ModTPH (T1) Calc. for Water	41	N/A	2021/12/23	N/A	Atl. RBCA v3 m
ModTPH (T1) Calc. for Water	1	N/A	2021/12/28	N/A	Atl. RBCA v3 m
Phosphorus Total Colourimetry	2	2021/12/22	2021/12/24	ATL SOP 00057	EPA 365.1 R2 m
Phosphorus Total Colourimetry	40	2021/12/29	2022/01/05	ATL SOP 00057	EPA 365.1 R2 m
Total Suspended Solids	4	2021/12/21	2021/12/23	ATL SOP 00007	SM 23 2540D m
Total Suspended Solids	8	2021/12/21	2021/12/29	ATL SOP 00007	SM 23 2540D m
Total Suspended Solids	10	2021/12/22	2021/12/28	ATL SOP 00007	SM 23 2540D m
Total Suspended Solids	15	2021/12/22	2021/12/29	ATL SOP 00007	SM 23 2540D m
Total Suspended Solids	5	2021/12/23	2022/01/10	ATL SOP 00007	SM 23 2540D m
Turbidity	27	N/A	2022/01/06	ATL SOP 00011	EPA 180.1 R2 m
Turbidity	15	N/A	2022/01/07	ATL SOP 00011	EPA 180.1 R2 m
VPH in Water (PIRI)	1	N/A	2021/12/20	ATL SOP 00130	Atl. RBCA v3.1 m
VPH in Water (PIRI)	41	N/A	2021/12/22	ATL SOP 00130	Atl. RBCA v3.1 m

**Remarks:**

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.



Your P.O. #: 0267  
Site Location: GOLDBORO  
Your C.O.C. #: N/A

**Attention: Derek Bullock**

Anaconda Mining Inc  
Goldboro Gold Mine  
570 Goldbrook Road  
Goldboro, NS  
Canada BOH 1L0

**Report Date: 2022/01/27**  
Report #: R6979590  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1Z7283**

**Received: 2021/12/17, 16:33**

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

- (1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8
- (2) TOC / DOC present in the sample should be considered as non-purgeable TOC / DOC
- (3) Sample filtered in laboratory prior to analysis for dissolved metals.
- (4) The APHA Standard Method require pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the APHA Standard Method holding time.
- (5) TOC / DOC present in the sample should be considered as non-purgeable TOC / DOC.

Encryption Key



Bureau Veritas  
27 Jan 2022 17:38:56

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Atena Georgescu, Project Manager II  
Email: Atena.Georgescu@bureauveritas.com  
Phone# (902)420-0203 Ext:239

=====

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BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283

Report Date: 2022/01/27

Anaconda Mining Inc

Site Location: GOLDBORO

Your P.O. #: 0267

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		RKL797			RKL798			RKL799		
Sampling Date		2021/12/15 16:15			2021/12/15 16:30			2021/12/15 16:45		
COC Number		N/A			N/A			N/A		
	UNITS	MW26-B	RDL	QC Batch	MW26-A	RDL	QC Batch	MW46-B	RDL	QC Batch
<b>Calculated Parameters</b>										
Anion Sum	me/L	2.95	N/A	7738157	0.600	N/A	7738157	6.62	N/A	7738157
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	100	1.0	7738154	16	1.0	7738154	130	1.0	7738154
Calculated TDS	mg/L	170	1.0	7738161	44	1.0	7738161	460	1.0	7738161
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.6	1.0	7738154	<1.0	1.0	7738154	1.8	1.0	7738154
Cation Sum	me/L	2.79	N/A	7738157	0.520	N/A	7738157	8.26	N/A	7738157
Hardness (CaCO3)	mg/L	35	1.0	7738155	12	1.0	7738155	98	1.0	7738155
Ion Balance (% Difference)	%	2.79	N/A	7738156	7.14	N/A	7738156	11.0	N/A	7738156
Langelier Index (@ 20C)	N/A	-0.0690		7738159	-2.90		7738159	0.316		7738159
Langelier Index (@ 4C)	N/A	-0.319		7738160	-3.15		7738160	0.0680		7738160
Nitrate (N)	mg/L	<0.050	0.050	7738158	0.051	0.050	7738158	<0.050	0.050	7738158
Saturation pH (@ 20C)	N/A	8.31		7738159	9.57		7738159	7.87		7738159
Saturation pH (@ 4C)	N/A	8.56		7738160	9.82		7738160	8.12		7738160
<b>Inorganics</b>										
Total Alkalinity (Total as CaCO3)	mg/L	100	10	7770038	16	5.0	7770038	130	25	7770038
Total Chemical Oxygen Demand	mg/L	<20	20	7757278	<20	20	7757278	130	20	7757278
Dissolved Chloride (Cl-)	mg/L	16	1.0	7771539	6.3	1.0	7771539	28	1.0	7771539
Colour	TCU	<5.0	5.0	7771542	<5.0	5.0	7771542	6.2	5.0	7771542
Nitrate + Nitrite (N)	mg/L	<0.050	0.050	7771544	0.051	0.050	7771544	<0.050	0.050	7771544
Nitrite (N)	mg/L	<0.010	0.010	7771545	<0.010	0.010	7771545	<0.010	0.010	7771545
Nitrogen (Ammonia Nitrogen)	mg/L	0.091	0.050	7747598	<0.050	0.050	7747598	<0.050	0.050	7747598
Dissolved Organic Carbon (C)	mg/L	2.4	0.5	7744525	1.3	0.5	7744513	30 (1)	5	7744523
Total Organic Carbon (C)	mg/L	2.9	0.50	7756902	0.69	0.50	7756894	35 (1)	5.0	7753580
Orthophosphate (P)	mg/L	0.047	0.010	7771543	<0.010	0.010	7771543	0.013	0.010	7771543
pH	pH	8.24		7755658	6.67		7755656	8.18		7755662
Dissolved Phosphorus	mg/L	<0.020	0.020	7752245	<0.020	0.020	7752245	<0.020	0.020	7752245
Total Phosphorus	mg/L	0.13	0.020	7756980	0.11	0.020	7756980	0.049	0.020	7756980
Reactive Silica (SiO2)	mg/L	8.3	0.50	7771541	12	0.50	7771541	10	0.50	7771541
Total Suspended Solids	mg/L	83	2.0	7744794	140	2.0	7744794	70	2.0	7744794
Dissolved Sulphate (SO4)	mg/L	21	2.0	7771540	4.4	2.0	7771540	160	10	7771540
Total Cyanide (CN)	mg/L	<0.0050	0.0050	7751443	<0.0050	0.0050	7751443	<0.0050	0.0050	7751443
Turbidity	NTU	87	0.10	7767205	84	0.10	7767205	42	0.10	7767205
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	7747988	<0.0010	0.0010	7747988	<0.0010	0.0010	7747988
Conductivity	uS/cm	280	1.0	7755659	59	1.0	7755657	660	1.0	7755663

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

N/A = Not Applicable

(1) Elevated reporting limit due to sample matrix.



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283  
Report Date: 2022/01/27

Anaconda Mining Inc  
Site Location: GOLDBORO  
Your P.O. #: 0267

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		RKL800			RKL801			RKL802		
Sampling Date		2021/12/16 10:10			2021/12/16 09:50			2021/12/16 11:30		
COC Number		N/A			N/A			N/A		
	UNITS	MW5-A	RDL	QC Batch	MW5-B	RDL	QC Batch	MW6-A	RDL	QC Batch
<b>Calculated Parameters</b>										
Anion Sum	me/L	1.29	N/A	7738157	1.26	N/A	7738157	0.310	N/A	7738157
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	51	1.0	7738154	54	1.0	7738154	7.3	1.0	7738154
Calculated TDS	mg/L	86	1.0	7738161	81	1.0	7738161	23	1.0	7738161
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	7738154	<1.0	1.0	7738154	<1.0	1.0	7738154
Cation Sum	me/L	1.50	N/A	7738157	1.36	N/A	7738157	0.350	N/A	7738157
Hardness (CaCO3)	mg/L	40	1.0	7738155	49	1.0	7738155	5.9	1.0	7738155
Ion Balance (% Difference)	%	7.53	N/A	7738156	3.82	N/A	7738156	6.06	N/A	7738156
Langelier Index (@ 20C)	N/A	-1.18		7738159	-1.09		7738159	-4.17		7738159
Langelier Index (@ 4C)	N/A	-1.43		7738160	-1.34		7738160	-4.42		7738160
Nitrate (N)	mg/L	<0.050	0.050	7738599	<0.050	0.050	7738599	0.051	0.050	7738599
Saturation pH (@ 20C)	N/A	8.49		7738159	8.37		7738159	10.3		7738159
Saturation pH (@ 4C)	N/A	8.75		7738160	8.63		7738160	10.6		7738160
<b>Inorganics</b>										
Total Alkalinity (Total as CaCO3)	mg/L	51	5.0	7770038	54	5.0	7770038	7.3	5.0	7770038
Total Chemical Oxygen Demand	mg/L	48	20	7757278	22	20	7757278	<20	20	7757278
Dissolved Chloride (Cl-)	mg/L	7.0	1.0	7771539	6.4	1.0	7771539	5.6	1.0	7771539
Colour	TCU	140	25	7771542	60	25	7771542	6.3	5.0	7771542
Nitrate + Nitrite (N)	mg/L	<0.050	0.050	7771544	<0.050	0.050	7771544	0.051	0.050	7771544
Nitrite (N)	mg/L	<0.010	0.010	7771545	<0.010	0.010	7771545	<0.010	0.010	7771545
Nitrogen (Ammonia Nitrogen)	mg/L	<0.050	0.050	7747598	<0.050	0.050	7747598	<0.050	0.050	7747598
Dissolved Organic Carbon (C)	mg/L	15	0.5	7744513	6.0	0.5	7744525	2.5	0.5	7744513
Total Organic Carbon (C)	mg/L	17	0.50	7753580	7.6	0.50	7753580	3.2	0.50	7747675
Orthophosphate (P)	mg/L	<0.010	0.010	7771543	<0.010	0.010	7771543	<0.010	0.010	7771543
pH	pH	7.32		7755658	7.28		7761118	6.15		7755662
Dissolved Phosphorus	mg/L	<0.020	0.020	7752245	<0.020	0.020	7752245	<0.020	0.020	7752245
Total Phosphorus	mg/L	0.18	0.020	7756980	0.033	0.020	7756980	0.18	0.020	7756980
Reactive Silica (SiO2)	mg/L	12	0.50	7771541	14	0.50	7771541	5.7	0.50	7771541
Total Suspended Solids	mg/L	360	8.3	7746407	26	2.0	7746407	260	5.0	7746407
Dissolved Sulphate (SO4)	mg/L	3.5	2.0	7771540	<2.0	2.0	7771540	<2.0	2.0	7771540
Total Cyanide (CN)	mg/L	<0.0050	0.0050	7751443	<0.0050	0.0050	7751443	<0.0050	0.0050	7751443
Turbidity	NTU	99	0.10	7767205	26	0.10	7767205	42	0.10	7767205
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	7747988	<0.0010	0.0010	7747988	<0.0010	0.0010	7747988
Conductivity	uS/cm	120	1.0	7755659	120	1.0	7761117	41	1.0	7755663
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable										



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283  
Report Date: 2022/01/27

Anaconda Mining Inc  
Site Location: GOLDBORO  
Your P.O. #: 0267

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		RKL803			RKL804			RKL805		
Sampling Date		2021/12/16 11:10			2021/12/16 12:10			2021/12/16 12:30		
COC Number		N/A			N/A			N/A		
	UNITS	MW6-B	RDL	QC Batch	MW30-A	RDL	QC Batch	MW30-B	RDL	QC Batch
<b>Calculated Parameters</b>										
Anion Sum	me/L	2.47	N/A	7738157	0.290	N/A	7738157	2.44	N/A	7738157
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	99	1.0	7738154	5.1	1.0	7738154	100	1.0	7738154
Calculated TDS	mg/L	150	1.0	7738161	22	1.0	7738161	140	1.0	7738161
Carb. Alkalinity (calc. as CaCO3)	mg/L	3.5	1.0	7738154	<1.0	1.0	7738154	<1.0	1.0	7738154
Cation Sum	me/L	2.66	N/A	7738157	0.310	N/A	7738157	2.31	N/A	7738157
Hardness (CaCO3)	mg/L	11	1.0	7738155	2.6	1.0	7738155	94	1.0	7738155
Ion Balance (% Difference)	%	3.70	N/A	7738156	3.33	N/A	7738156	2.74	N/A	7738156
Langelier Index (@ 20C)	N/A	-0.243		7738159	-4.86		7738159	0.0410		7738159
Langelier Index (@ 4C)	N/A	-0.494		7738160	-5.11		7738160	-0.210		7738160
Nitrate (N)	mg/L	<0.050	0.050	7738599	<0.050	0.050	7738599	0.060	0.050	7738599
Saturation pH (@ 20C)	N/A	8.82		7738159	11.0		7738159	7.85		7738159
Saturation pH (@ 4C)	N/A	9.07		7738160	11.2		7738160	8.10		7738160
<b>Inorganics</b>										
Total Alkalinity (Total as CaCO3)	mg/L	100	25	7770038	5.1	5.0	7770038	100	10	7770038
Total Chemical Oxygen Demand	mg/L	<20	20	7757278	<20	20	7757278	<20	20	7757278
Dissolved Chloride (Cl-)	mg/L	6.5	1.0	7771539	4.6	1.0	7771539	7.7	1.0	7771539
Colour	TCU	14	5.0	7771542	<5.0	5.0	7771542	<5.0	5.0	7771542
Nitrate + Nitrite (N)	mg/L	<0.050	0.050	7771544	<0.050	0.050	7771544	0.060	0.050	7771544
Nitrite (N)	mg/L	<0.010	0.010	7771545	<0.010	0.010	7771545	<0.010	0.010	7771545
Nitrogen (Ammonia Nitrogen)	mg/L	0.063	0.050	7747598	<0.050	0.050	7747598	<0.050	0.050	7747598
Dissolved Organic Carbon (C)	mg/L	2.6	0.5	7744525	1.3	0.5	7761281	0.6	0.5	7744525
Total Organic Carbon (C)	mg/L	4.4	0.50	7756881	1.4	0.50	7756881	0.90	0.50	7753579
Orthophosphate (P)	mg/L	0.017	0.010	7771543	<0.010	0.010	7771543	<0.010	0.010	7771543
pH	pH	8.58		7755658	6.11		7755656	7.89		7756784
Dissolved Phosphorus	mg/L	<0.020	0.020	7748236	<0.020	0.020	7748236	0.039	0.020	7748236
Total Phosphorus	mg/L	0.092	0.020	7756980	0.067	0.020	7756980	0.020	0.020	7756980
Reactive Silica (SiO2)	mg/L	7.8	0.50	7771541	4.4	0.50	7771541	12	0.50	7771541
Total Suspended Solids	mg/L	65	5.0	7746407	14	2.0	7746407	28	2.0	7746407
Dissolved Sulphate (SO4)	mg/L	12	2.0	7771540	2.9	2.0	7771540	9.3	2.0	7771540
Total Cyanide (CN)	mg/L	<0.0050	0.0050	7751443	<0.0050	0.0050	7751443	<0.0050	0.0050	7751443
Turbidity	NTU	47	0.10	7767205	11	0.10	7769485	24	0.10	7767218
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	7747988	<0.0010	0.0010	7747988	<0.0010	0.0010	7747988
Conductivity	uS/cm	250	1.0	7755659	33	1.0	7755657	220	1.0	7756783
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable										



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283  
Report Date: 2022/01/27

Anaconda Mining Inc  
Site Location: GOLDBORO  
Your P.O. #: 0267

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		RKL806			RKL807			RKL808		
Sampling Date		2021/12/16 10:50			2021/12/16 10:30			2021/12/16 09:25		
COC Number		N/A			N/A			N/A		
	UNITS	MW42-A	RDL	QC Batch	MW42-B	RDL	QC Batch	MW43-A	RDL	QC Batch
<b>Calculated Parameters</b>										
Anion Sum	me/L	0.630	N/A	7738597	2.65	N/A	7738597	1.12	N/A	7738597
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	23	1.0	7738592	99	1.0	7738592	47	1.0	7738592
Calculated TDS	mg/L	55	1.0	7738603	150	1.0	7738603	74	1.0	7738603
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	7738592	1.1	1.0	7738592	<1.0	1.0	7738592
Cation Sum	me/L	1.07	N/A	7738597	2.66	N/A	7738597	1.27	N/A	7738597
Hardness (CaCO3)	mg/L	10	1.0	7738155	66	1.0	7738155	43	1.0	7738155
Ion Balance (% Difference)	%	25.9	N/A	7738596	0.190	N/A	7738596	6.28	N/A	7738596
Langelier Index (@ 20C)	N/A	-2.69		7738601	0.0310		7738601	-1.49		7738601
Langelier Index (@ 4C)	N/A	-2.94		7738602	-0.220		7738602	-1.74		7738602
Nitrate (N)	mg/L	<0.050	0.050	7738599	<0.050	0.050	7738599	<0.050	0.050	7738599
Saturation pH (@ 20C)	N/A	9.52		7738601	8.04		7738601	8.52		7738601
Saturation pH (@ 4C)	N/A	9.77		7738602	8.29		7738602	8.77		7738602
<b>Inorganics</b>										
Total Alkalinity (Total as CaCO3)	mg/L	23	5.0	7770038	100	10	7770038	47	5.0	7770038
Total Chemical Oxygen Demand	mg/L	65	20	7757278	<20	20	7757278	34	20	7757278
Dissolved Chloride (Cl-)	mg/L	6.3	1.0	7771539	11	1.0	7771539	6.7	1.0	7771539
Colour	TCU	12	5.0	7771542	10	5.0	7771542	17	5.0	7771542
Nitrate + Nitrite (N)	mg/L	<0.050	0.050	7771544	<0.050	0.050	7771544	<0.050	0.050	7771544
Nitrite (N)	mg/L	<0.010	0.010	7771545	<0.010	0.010	7771545	<0.010	0.010	7771545
Nitrogen (Ammonia Nitrogen)	mg/L	<0.050	0.050	7747598	0.083	0.050	7747598	0.13	0.050	7747598
Dissolved Organic Carbon (C)	mg/L	7.8	0.5	7744525	4.7	0.5	7744523	7 (1)	5	7744523
Total Organic Carbon (C)	mg/L	11 (1)	5.0	7756902	5.7	0.50	7753579	9.2	0.50	7753579
Orthophosphate (P)	mg/L	<0.010	0.010	7771543	<0.010	0.010	7771543	<0.010	0.010	7771543
pH	pH	6.83		7755656	8.07		7755662	7.03		7755662
Dissolved Phosphorus	mg/L	0.035	0.020	7748236	0.033	0.020	7748236	<0.020	0.020	7752245
Total Phosphorus	mg/L	1.6	0.040	7756980	0.044	0.020	7756980	0.079	0.020	7756980
Reactive Silica (SiO2)	mg/L	6.6	0.50	7771541	8.1	0.50	7771541	11	0.50	7771541
Total Suspended Solids	mg/L	1900	100	7746407	49	5.0	7746407	170	5.0	7747724
Dissolved Sulphate (SO4)	mg/L	<2.0	2.0	7771540	16	2.0	7771540	<2.0	2.0	7771540
Total Cyanide (CN)	mg/L	<0.0050	0.0050	7751443	<0.0050	0.0050	7751443	<0.0050	0.0050	7751443
Turbidity	NTU	330	1.0	7769485	38	0.10	7767218	67	0.10	7767218
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	7747988	<0.0010	0.0010	7747988	<0.0010	0.0010	7747988
Conductivity	uS/cm	69	1.0	7755657	250	1.0	7755663	110	1.0	7755663

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

N/A = Not Applicable

(1) Elevated reporting limit due to turbidity.



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283

Report Date: 2022/01/27

Anaconda Mining Inc

Site Location: GOLDBORO

Your P.O. #: 0267

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		RKL809			RKL810			RKL811		
Sampling Date		2021/12/16 09:10			2021/12/16 13:30			2021/12/16 14:20		
COC Number		N/A			N/A			N/A		
	UNITS	MW43-B	RDL	QC Batch	MW46-A	RDL	QC Batch	MW7-A	RDL	QC Batch
<b>Calculated Parameters</b>										
Anion Sum	me/L	1.56	N/A	7738597	0.770	N/A	7738597	0.300	N/A	7738597
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	66	1.0	7738592	21	1.0	7738592	5.6	1.0	7738592
Calculated TDS	mg/L	93	1.0	7738603	54	1.0	7738603	25	1.0	7738603
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	7738592	<1.0	1.0	7738592	<1.0	1.0	7738592
Cation Sum	me/L	1.43	N/A	7738597	0.750	N/A	7738597	0.340	N/A	7738597
Hardness (CaCO3)	mg/L	50	1.0	7738155	19	1.0	7738155	3.4	1.0	7738594
Ion Balance (% Difference)	%	4.35	N/A	7738596	1.32	N/A	7738596	6.25	N/A	7738596
Langelier Index (@ 20C)	N/A	-0.768		7738601	-2.66		7738601	-4.52		7738601
Langelier Index (@ 4C)	N/A	-1.02		7738602	-2.91		7738602	-4.77		7738602
Nitrate (N)	mg/L	<0.050	0.050	7738599	<0.050	0.050	7738599	0.066	0.050	7738599
Saturation pH (@ 20C)	N/A	8.32		7738601	9.21		7738601	10.7		7738601
Saturation pH (@ 4C)	N/A	8.57		7738602	9.47		7738602	11.0		7738602
<b>Inorganics</b>										
Total Alkalinity (Total as CaCO3)	mg/L	66	5.0	7770038	21	5.0	7770038	5.6	5.0	7770038
Total Chemical Oxygen Demand	mg/L	<20	20	7757278	22	20	7757278	<20	20	7757278
Dissolved Chloride (Cl-)	mg/L	4.4	1.0	7771539	7.3	1.0	7771539	3.7	1.0	7771539
Colour	TCU	<5.0	5.0	7771542	<5.0	5.0	7771542	<5.0	5.0	7771542
Nitrate + Nitrite (N)	mg/L	<0.050	0.050	7771544	<0.050	0.050	7771544	0.066	0.050	7771544
Nitrite (N)	mg/L	<0.010	0.010	7771545	<0.010	0.010	7771545	<0.010	0.010	7771545
Nitrogen (Ammonia Nitrogen)	mg/L	<0.050	0.050	7747599	<0.050	0.050	7747599	<0.050	0.050	7747599
Dissolved Organic Carbon (C)	mg/L	1.4	0.5	7741053	0.9	0.5	7744523	1.2	0.5	7744523
Total Organic Carbon (C)	mg/L	0.79	0.50	7756894	1.8	0.50	7756919	5.4	0.50	7756894
Orthophosphate (P)	mg/L	<0.010	0.010	7771543	<0.010	0.010	7771543	<0.010	0.010	7771543
pH	pH	7.55		7755656	6.55		7755662	6.22		7755662
Dissolved Phosphorus	mg/L	0.032	0.020	7748236	0.030	0.020	7748236	<0.020	0.020	7752245
Total Phosphorus	mg/L	0.17	0.020	7756980	0.087	0.020	7756980	0.10	0.020	7756980
Reactive Silica (SiO2)	mg/L	15	0.50	7771541	12	0.50	7771541	6.5	0.50	7771541
Total Suspended Solids	mg/L	18	1.0	7747724	150	5.0	7747724	300	5.0	7747724
Dissolved Sulphate (SO4)	mg/L	5.1	2.0	7771540	6.8	2.0	7771540	3.6	2.0	7771540
Total Cyanide (CN)	mg/L	<0.0050	0.0050	7751443	<0.0050	0.0050	7751443	<0.0050	0.0050	7751443
Turbidity	NTU	6.0	0.10	7767218	67	0.10	7767218	120	1.0	7767218
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	7747988	<0.0010	0.0010	7747988	<0.0010	0.0010	7747988
Conductivity	uS/cm	140	1.0	7755657	79	1.0	7755663	40	1.0	7755663
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable										



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283  
Report Date: 2022/01/27

Anaconda Mining Inc  
Site Location: GOLDBORO  
Your P.O. #: 0267

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		RKL812			RKL813			RKL814		
Sampling Date		2021/12/16 14:00			2021/12/16 14:55			2021/12/16 14:35		
COC Number		N/A			N/A			N/A		
	UNITS	MW7-B	RDL	QC Batch	MW15-A	RDL	QC Batch	MW15-B	RDL	QC Batch
<b>Calculated Parameters</b>										
Anion Sum	me/L	2.60	N/A	7738597	1.96	N/A	7738597	3.52	N/A	7738597
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	110	1.0	7738592	89	1.0	7738592	140	1.0	7738592
Calculated TDS	mg/L	150	1.0	7738603	170	1.0	7738603	210	1.0	7738603
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.5	1.0	7738592	<1.0	1.0	7738592	1.6	1.0	7738592
Cation Sum	me/L	2.82	N/A	7738597	3.89	N/A	7738597	3.63	N/A	7738597
Hardness (CaCO3)	mg/L	120	1.0	7738595	47	1.0	7738595	130	1.0	7738595
Ion Balance (% Difference)	%	4.06	N/A	7738596	33.0	N/A	7738596	1.54	N/A	7738596
Langelier Index (@ 20C)	N/A	0.400		7738601	-2.49		7738601	0.440		7738601
Langelier Index (@ 4C)	N/A	0.149		7738602	-2.74		7738602	0.190		7738602
Nitrate (N)	mg/L	<0.050	0.050	7738599	<0.050	0.050	7738599	<0.050	0.050	7738599
Saturation pH (@ 20C)	N/A	7.75		7738601	8.29		7738601	7.62		7738601
Saturation pH (@ 4C)	N/A	8.00		7738602	8.54		7738602	7.87		7738602
<b>Inorganics</b>										
Total Alkalinity (Total as CaCO3)	mg/L	110	25	7770038	89	5.0	7770038	140	25	7770038
Total Chemical Oxygen Demand	mg/L	<20	20	7757278	230	20	7757278	<20	20	7757278
Dissolved Chloride (Cl-)	mg/L	7.5	1.0	7771539	6.7	1.0	7771539	5.0	1.0	7771539
Colour	TCU	<5.0	5.0	7771542	45	5.0	7771542	<5.0	5.0	7771542
Nitrate + Nitrite (N)	mg/L	<0.050	0.050	7771544	<0.050	0.050	7771544	<0.050	0.050	7771544
Nitrite (N)	mg/L	<0.010	0.010	7771545	<0.010	0.010	7771545	<0.010	0.010	7771545
Nitrogen (Ammonia Nitrogen)	mg/L	<0.050	0.050	7747599	0.18	0.050	7747599	0.075	0.050	7747599
Dissolved Organic Carbon (C)	mg/L	0.7	0.5	7741053	74 (1)	5	7744523	1.8	0.5	7744523
Total Organic Carbon (C)	mg/L	0.69	0.50	7756902	80 (1)	5.0	7756902	1.7	0.50	7753580
Orthophosphate (P)	mg/L	<0.010	0.010	7771543	<0.010	0.010	7771543	<0.30 (1)	0.30	7771543
pH	pH	8.15		7761118	5.80		7761118	8.06		7761118
Dissolved Phosphorus	mg/L	<0.020	0.020	7754293	0.033	0.020	7748236	0.031	0.020	7748236
Total Phosphorus	mg/L	<0.020	0.020	7756980	0.060	0.020	7756980	0.084	0.020	7756980
Reactive Silica (SiO2)	mg/L	13	0.50	7771541	14	0.50	7771541	18 (1)	1.0	7771541
Total Suspended Solids	mg/L	17	1.0	7747724	95	5.0	7747724	10	1.0	7747724
Dissolved Sulphate (SO4)	mg/L	8.0	2.0	7771540	<2.0	2.0	7771540	24	2.0	7771540
Total Cyanide (CN)	mg/L	<0.0050	0.0050	7751443	<0.0050	0.0050	7751443	<0.0050	0.0050	7751443
Turbidity	NTU	14	0.10	7767218	100	1.0	7769485	9.9	0.10	7769485
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	7747988	<0.0010	0.0010	7747988	<0.0010	0.0010	7747988
Conductivity	uS/cm	250	1.0	7761117	210	1.0	7761117	330	1.0	7761117

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

N/A = Not Applicable

(1) Elevated reporting limit due to sample matrix.



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283  
Report Date: 2022/01/27

Anaconda Mining Inc  
Site Location: GOLDBORO  
Your P.O. #: 0267

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		RKL815			RKL816			RKL817		
Sampling Date		2021/12/16 15:00			2021/12/16 15:10			2021/12/16 16:05		
COC Number		N/A			N/A			N/A		
	UNITS	MW20-A	RDL	QC Batch	MW20-B	RDL	QC Batch	MW21-A	RDL	QC Batch
<b>Calculated Parameters</b>										
Anion Sum	me/L	0.930	N/A	7738597	2.66	N/A	7738597	1.33	N/A	7738597
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	31	1.0	7738592	120	1.0	7738592	49	1.0	7738592
Calculated TDS	mg/L	83	1.0	7738603	150	1.0	7738603	86	1.0	7738603
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	7738592	1.4	1.0	7738592	<1.0	1.0	7738592
Cation Sum	me/L	1.72	N/A	7738597	2.50	N/A	7738597	1.26	N/A	7738597
Hardness (CaCO3)	mg/L	16	1.0	7738595	97	1.0	7738595	38	1.0	7738595
Ion Balance (% Difference)	%	29.8	N/A	7738596	3.10	N/A	7738596	2.70	N/A	7738596
Langelier Index (@ 20C)	N/A	-2.43		7738601	0.274		7738601	-1.58		7738601
Langelier Index (@ 4C)	N/A	-2.68		7738602	0.0240		7738602	-1.83		7738602
Nitrate (N)	mg/L	<0.050	0.050	7738599	<0.050	0.050	7738599	<0.050	0.050	7738599
Saturation pH (@ 20C)	N/A	9.19		7738601	7.80		7738601	8.55		7738601
Saturation pH (@ 4C)	N/A	9.45		7738602	8.05		7738602	8.80		7738602
<b>Inorganics</b>										
Total Alkalinity (Total as CaCO3)	mg/L	31	5.0	7770038	120	25	7770054	49	5.0	7770054
Total Chemical Oxygen Demand	mg/L	<20	20	7757278	<20	20	7757278	60	20	7757283
Dissolved Chloride (Cl-)	mg/L	9.5	1.0	7771539	5.6	1.0	7771549	6.8	1.0	7771549
Colour	TCU	14	5.0	7771542	<5.0	5.0	7771552	<5.0	5.0	7784402
Nitrate + Nitrite (N)	mg/L	<0.050	0.050	7771544	<0.050	0.050	7771554	<0.050	0.050	7771554
Nitrite (N)	mg/L	<0.010	0.010	7771545	<0.010	0.010	7771555	<0.010	0.010	7771555
Nitrogen (Ammonia Nitrogen)	mg/L	<0.050	0.050	7747599	<0.050	0.050	7747599	<0.050	0.050	7747599
Dissolved Organic Carbon (C)	mg/L	1.9	0.5	7741053	2.2	0.5	7744523	9.7	0.5	7741053
Total Organic Carbon (C)	mg/L	1.6	0.50	7753580	1.2	0.50	7753579	11 (1)	5.0	7756925
Orthophosphate (P)	mg/L	<0.010	0.010	7771543	<0.010	0.010	7771553	<0.010	0.010	7771553
pH	pH	6.77		7755662	8.08		7755662	6.97		7761122
Dissolved Phosphorus	mg/L	<0.020	0.020	7752245	<0.020	0.020	7752245	<0.020	0.020	7754293
Total Phosphorus	mg/L	0.34	0.020	7756980	0.027	0.020	7756980	0.45	0.020	7756983
Reactive Silica (SiO2)	mg/L	9.6	0.50	7771541	15	0.50	7771551	15	0.50	7771551
Total Suspended Solids	mg/L	150	5.0	7747724	15	1.0	7747724	250	5.0	7747724
Dissolved Sulphate (SO4)	mg/L	2.4	2.0	7771540	2.9	2.0	7771550	7.6	2.0	7771550
Total Cyanide (CN)	mg/L	<0.0050	0.0050	7751443	<0.0050	0.0050	7751443	<0.0050	0.0050	7751452
Turbidity	NTU	180	1.0	7767218	5.9	0.10	7767218	98	0.10	7767218
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	7747988	<0.0010	0.0010	7747988	<0.0010	0.0010	7748280
Conductivity	uS/cm	95	1.0	7755663	230	1.0	7755663	120	1.0	7761120

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

N/A = Not Applicable

(1) Elevated reporting limit due to turbidity.



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283  
Report Date: 2022/01/27

Anaconda Mining Inc  
Site Location: GOLDBORO  
Your P.O. #: 0267

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		RKL818			RKL819			RKL820		
Sampling Date		2021/12/16 15:50			2021/12/16 12:00			2021/12/15 12:00		
COC Number		N/A			N/A			N/A		
	UNITS	MW21-B	RDL	QC Batch	DUP-D	RDL	QC Batch	DUP-C	RDL	QC Batch
<b>Calculated Parameters</b>										
Anion Sum	me/L	2.23	N/A	7738597	0.810	N/A	7738597	2.89	N/A	7738597
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	96	1.0	7738592	23	1.0	7738592	98	1.0	7738592
Calculated TDS	mg/L	130	1.0	7738603	55	1.0	7738603	170	1.0	7738603
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	7738592	<1.0	1.0	7738592	1.7	1.0	7738592
Cation Sum	me/L	2.17	N/A	7738597	0.730	N/A	7738597	2.80	N/A	7738597
Hardness (CaCO3)	mg/L	83	1.0	7738595	19	1.0	7738595	35	1.0	7738595
Ion Balance (% Difference)	%	1.36	N/A	7738596	5.19	N/A	7738596	1.58	N/A	7738596
Langelier Index (@ 20C)	N/A	0.0670		7738601	-2.69		7738601	-0.0450		7738601
Langelier Index (@ 4C)	N/A	-0.183		7738602	-2.94		7738602	-0.296		7738602
Nitrate (N)	mg/L	<0.050	0.050	7738599	<0.050	0.050	7738599	<0.050	0.050	7738599
Saturation pH (@ 20C)	N/A	7.95		7738601	9.17		7738601	8.32		7738601
Saturation pH (@ 4C)	N/A	8.20		7738602	9.43		7738602	8.57		7738602
<b>Inorganics</b>										
Total Alkalinity (Total as CaCO3)	mg/L	97 (1)	10	7770054	23	5.0	7770054	100	10	7770054
Total Chemical Oxygen Demand	mg/L	29	20	7757283	34	20	7757283	<20	20	7757283
Dissolved Chloride (Cl-)	mg/L	5.5	1.0	7771549	7.1	1.0	7771549	15	1.0	7771549
Colour	TCU	<5.0	5.0	7784402	<5.0	5.0	7784402	<5.0	5.0	7784402
Nitrate + Nitrite (N)	mg/L	<0.050	0.050	7771554	<0.050	0.050	7771554	<0.050	0.050	7771554
Nitrite (N)	mg/L	<0.010	0.010	7771555	<0.010	0.010	7771555	<0.010	0.010	7771555
Nitrogen (Ammonia Nitrogen)	mg/L	0.071	0.050	7747599	<0.050	0.050	7747599	0.081	0.050	7747599
Dissolved Organic Carbon (C)	mg/L	5.3	0.5	7741053	1.0	0.5	7744525	2.5	0.5	7744523
Total Organic Carbon (C)	mg/L	5.6	0.50	7753580	2.3	0.50	7756881	3.1	0.50	7753579
Orthophosphate (P)	mg/L	<0.010	0.010	7771553	<0.010	0.010	7771553	0.054	0.010	7771553
pH	pH	8.02		7755656	6.48		7761118	8.27		7755662
Dissolved Phosphorus	mg/L	0.023	0.020	7748236	<0.020	0.020	7748236	0.027	0.020	7748236
Total Phosphorus	mg/L	0.055	0.020	7756983	0.13	0.020	7756983	0.14	0.020	7756983
Reactive Silica (SiO2)	mg/L	12	0.50	7771551	12	0.50	7771551	8.5	0.50	7771551
Total Suspended Solids	mg/L	83	5.0	7747724	84	5.0	7747724	89	5.0	7744794
Dissolved Sulphate (SO4)	mg/L	7.1	2.0	7771550	6.8	2.0	7771550	21	2.0	7771550
Total Cyanide (CN)	mg/L	<0.0050	0.0050	7751452	<0.0050	0.0050	7751452	<0.0050	0.0050	7751452
Turbidity	NTU	69	0.10	7767218	67	0.10	7769485	62	0.10	7767218
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	7748280	<0.0010	0.0010	7748280	<0.0010	0.0010	7748280
Conductivity	uS/cm	210	1.0	7755657	78	1.0	7761117	280	1.0	7755663

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

N/A = Not Applicable

(1) Elevated reporting limit due to sample matrix.





### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		RKL821			RKL822		RKL823		
Sampling Date		2021/12/16 12:05			2021/12/17 09:05		2021/12/17 08:50		
COC Number		N/A			N/A		N/A		
	UNITS	DUP-A	RDL	QC Batch	MW1-A	QC Batch	MW1-B	RDL	QC Batch
<b>Calculated Parameters</b>									
Anion Sum	me/L	1.14	N/A	7738597	0.330	7738597	0.900	N/A	7738597
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	47	1.0	7738592	6.5	7738592	31	1.0	7738592
Calculated TDS	mg/L	74	1.0	7738603	23	7738603	62	1.0	7738603
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	7738592	<1.0	7738592	<1.0	1.0	7738592
Cation Sum	me/L	1.22	N/A	7738597	0.290	7738597	0.810	N/A	7738597
Hardness (CaCO3)	mg/L	42	1.0	7738595	2.9	7738595	21	1.0	7738595
Ion Balance (% Difference)	%	3.39	N/A	7738596	6.45	7738596	5.26	N/A	7738596
Langelier Index (@ 20C)	N/A	-1.70		7738601	-4.73	7738601	-1.84		7738601
Langelier Index (@ 4C)	N/A	-1.96		7738602	-4.98	7738602	-2.09		7738602
Nitrate (N)	mg/L	<0.050	0.050	7738599	<0.050	7738599	<0.050	0.050	7738599
Saturation pH (@ 20C)	N/A	8.53		7738601	10.8	7738601	9.01		7738601
Saturation pH (@ 4C)	N/A	8.78		7738602	11.1	7738602	9.26		7738602
<b>Inorganics</b>									
Total Alkalinity (Total as CaCO3)	mg/L	47	5.0	7770054	6.5	7770054	31	5.0	7770054
Total Chemical Oxygen Demand	mg/L	36	20	7757283	<20	7757283	<20	20	7757283
Dissolved Chloride (Cl-)	mg/L	6.8	1.0	7771549	4.7	7771549	5.9	1.0	7771549
Colour	TCU	25	5.0	7784402	<5.0	7784402	5.7	5.0	7784402
Nitrate + Nitrite (N)	mg/L	<0.050	0.050	7771554	<0.050	7771554	<0.050	0.050	7771554
Nitrite (N)	mg/L	<0.010	0.010	7771555	<0.010	7771555	<0.010	0.010	7771555
Nitrogen (Ammonia Nitrogen)	mg/L	0.12	0.050	7747599	<0.050	7747599	<0.050	0.050	7747599
Dissolved Organic Carbon (C)	mg/L	9 (1)	5	7744523	1.4	7744525	2.1	0.5	7744513
Total Organic Carbon (C)	mg/L	8.5	0.50	7753580	1.5	7753580	3.3	0.50	7753580
Orthophosphate (P)	mg/L	<0.010	0.010	7771553	<0.010	7771553	<0.010	0.010	7771553
pH	pH	6.83		7756784	6.09	7755658	7.17		7755658
Dissolved Phosphorus	mg/L	<0.020	0.020	7752245	<0.020	7748236	<0.020	0.020	7748236
Total Phosphorus	mg/L	0.075	0.020	7756983	0.31	7756983	0.038	0.020	7756983
Reactive Silica (SiO2)	mg/L	11	0.50	7771551	4.6	7771551	15	0.50	7771551
Total Suspended Solids	mg/L	140	5.0	7747724	83	7748963	29	2.0	7748963
Dissolved Sulphate (SO4)	mg/L	<2.0	2.0	7771550	3.3	7771550	5.3	2.0	7771550
Total Cyanide (CN)	mg/L	<0.0050	0.0050	7751452	<0.0050	7751452	<0.0050	0.0050	7751452
Turbidity	NTU	78	0.10	7769485	13	7767218	7.0	0.10	7767218
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	7748280	<0.0010	7748280	<0.0010	0.0010	7748280
Conductivity	uS/cm	110	1.0	7756783	35	7755659	85	1.0	7755659
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable (1) Elevated reporting limit due to turbidity.									



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283

Report Date: 2022/01/27

Anaconda Mining Inc

Site Location: GOLDBORO

Your P.O. #: 0267

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		RKL824			RKL825			RKL826		
Sampling Date		2021/12/16 13:25			2021/12/16 13:15			2021/12/16 12:15		
COC Number		N/A			N/A			N/A		
	UNITS	MW16-A	RDL	QC Batch	MW16-B	RDL	QC Batch	MW23-A	RDL	QC Batch
<b>Calculated Parameters</b>										
Anion Sum	me/L	2.37	N/A	7738597	2.43	N/A	7738597	0.380	N/A	7738597
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	96	1.0	7738592	110	1.0	7738592	5.8	1.0	7738592
Calculated TDS	mg/L	140	1.0	7738603	140	1.0	7738603	27	1.0	7738603
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	7738592	1.2	1.0	7738592	<1.0	1.0	7738592
Cation Sum	me/L	2.10	N/A	7738597	2.33	N/A	7738597	0.400	N/A	7738597
Hardness (CaCO3)	mg/L	58	1.0	7738595	89	1.0	7738595	4.7	1.0	7738595
Ion Balance (% Difference)	%	6.04	N/A	7738596	2.10	N/A	7738596	2.56	N/A	7738596
Langelier Index (@ 20C)	N/A	-0.135		7738601	0.220		7738601	-4.65		7738601
Langelier Index (@ 4C)	N/A	-0.386		7738602	-0.0310		7738602	-4.90		7738602
Nitrate (N)	mg/L	<0.050	0.050	7738599	<0.050	0.050	7738599	0.091	0.050	7738599
Saturation pH (@ 20C)	N/A	8.09		7738601	7.87		7738601	10.6		7738601
Saturation pH (@ 4C)	N/A	8.34		7738602	8.12		7738602	10.8		7738602
<b>Inorganics</b>										
Total Alkalinity (Total as CaCO3)	mg/L	96	5.0	7770054	110	10	7770054	5.8	5.0	7770054
Total Chemical Oxygen Demand	mg/L	22	20	7757283	<20	20	7757283	<20	20	7757283
Dissolved Chloride (Cl-)	mg/L	5.2	1.0	7771549	5.1	1.0	7771549	6.2	1.0	7771549
Colour	TCU	<5.0	5.0	7784402	<5.0	5.0	7784402	<5.0	5.0	7784402
Nitrate + Nitrite (N)	mg/L	<0.050	0.050	7771554	<0.050	0.050	7771554	0.091	0.050	7771554
Nitrite (N)	mg/L	<0.010	0.010	7771555	<0.010	0.010	7771555	<0.010	0.010	7771555
Nitrogen (Ammonia Nitrogen)	mg/L	0.13	0.050	7747599	<0.050	0.050	7747599	<0.050	0.050	7747599
Dissolved Organic Carbon (C)	mg/L	<5 (1)	5	7744523	0.9	0.5	7744513	1.5	0.5	7744513
Total Organic Carbon (C)	mg/L	2.5	0.50	7753580	1.4	0.50	7756894	2.0	0.50	7756902
Orthophosphate (P)	mg/L	0.017	0.010	7771553	<0.010	0.010	7771553	<0.010	0.010	7771553
pH	pH	7.95		7755658	8.09		7756784	5.93		7761122
Dissolved Phosphorus	mg/L	<0.020	0.020	7752245	<0.020	0.020	7752245	<0.020	0.020	7752245
Total Phosphorus	mg/L	0.24	0.020	7756983	0.021	0.020	7756983	0.062	0.020	7756983
Reactive Silica (SiO2)	mg/L	19	0.50	7771551	17	0.50	7771551	3.8	0.50	7771551
Total Suspended Solids	mg/L	170	5.0	7747724	14	1.0	7747724	300	5.0	7748963
Dissolved Sulphate (SO4)	mg/L	14	2.0	7771550	5.2	2.0	7771550	4.1	2.0	7771550
Total Cyanide (CN)	mg/L	<0.0050	0.0050	7751452	<0.0050	0.0050	7751452	<0.0050	0.0050	7751452
Turbidity	NTU	240	1.0	7767218	16	0.10	7769485	9.8	0.10	7769485
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	7748280	<0.0010	0.0010	7748280	<0.0010	0.0010	7748280
Conductivity	uS/cm	210	1.0	7755659	220	1.0	7756783	38	1.0	7761120

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

N/A = Not Applicable

(1) Elevated reporting limit due to turbidity.



BUREAU VERITAS

Bureau Veritas Job #: C1Z7283  
Report Date: 2022/01/27

Anaconda Mining Inc  
Site Location: GOLDBORO  
Your P.O. #: 0267

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		RKL827			RKL828			RKL829		
Sampling Date		2021/12/17 12:15			2021/12/17 12:08			2021/12/17 12:55		
COC Number		N/A			N/A			N/A		
	UNITS	MW23-B	RDL	QC Batch	MW29-A	RDL	QC Batch	MW29-B	RDL	QC Batch
<b>Calculated Parameters</b>										
Anion Sum	me/L	1.08	N/A	7738597	0.410	N/A	7738597	1.08	N/A	7738597
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	38	1.0	7738592	13	1.0	7738592	16	1.0	7738592
Calculated TDS	mg/L	65	1.0	7738603	26	1.0	7738603	73	1.0	7738603
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	7738592	<1.0	1.0	7738592	<1.0	1.0	7738592
Cation Sum	me/L	1.22	N/A	7738597	0.390	N/A	7738597	1.03	N/A	7738597
Hardness (CaCO3)	mg/L	35	1.0	7738595	7.3	1.0	7738595	4.0	1.0	7738595
Ion Balance (% Difference)	%	6.09	N/A	7738596	2.50	N/A	7738596	2.37	N/A	7738596
Langelier Index (@ 20C)	N/A	-0.868		7738601	-2.90		7738601	-3.08		7738601
Langelier Index (@ 4C)	N/A	-1.12		7738602	-3.15		7738602	-3.34		7738602
Nitrate (N)	mg/L	<0.050	0.050	7738599	<0.050	0.050	7738599	0.38	0.050	7738599
Saturation pH (@ 20C)	N/A	8.67		7738601	9.88		7738601	10.0		7738601
Saturation pH (@ 4C)	N/A	8.92		7738602	10.1		7738602	10.3		7738602
<b>Inorganics</b>										
Total Alkalinity (Total as CaCO3)	mg/L	38	5.0	7770054	13	5.0	7770054	16	5.0	7770060
Total Chemical Oxygen Demand	mg/L	230	20	7757283	69	20	7757283	22	20	7757283
Dissolved Chloride (Cl-)	mg/L	7.6	1.0	7771549	3.3	1.0	7771549	6.1	1.0	7771598
Colour	TCU	180	25	7784402	<5.0	5.0	7784402	<5.0	5.0	7771601
Nitrate + Nitrite (N)	mg/L	<0.050	0.050	7771554	<0.050	0.050	7771554	0.41	0.050	7771603
Nitrite (N)	mg/L	<0.010	0.010	7771555	<0.010	0.010	7771555	0.029	0.010	7771604
Nitrogen (Ammonia Nitrogen)	mg/L	0.093	0.050	7747599	<0.050	0.050	7747599	<0.050	0.050	7750655
Dissolved Organic Carbon (C)	mg/L	45	0.5	7744513	8.7	0.5	7744513	2.9	0.5	7744523
Total Organic Carbon (C)	mg/L	56 (1)	5.0	7753580	9.7	0.50	7753580	4.4	0.50	7753580
Orthophosphate (P)	mg/L	<0.010	0.010	7771553	<0.010	0.010	7771553	<0.010	0.010	7771602
pH	pH	7.80		7755658	6.99		7755656	6.94		7755656
Dissolved Phosphorus	mg/L	<0.020	0.020	7752245	0.023	0.020	7748236	<0.020	0.020	7748236
Total Phosphorus	mg/L	0.18	0.020	7756983	0.58	0.020	7756983	0.12	0.020	7756983
Reactive Silica (SiO2)	mg/L	3.9	0.50	7771551	2.3	0.50	7771551	4.9	0.50	7771600
Total Suspended Solids	mg/L	99	5.0	7750826	640	5.0	7748963	170	10	7748963
Dissolved Sulphate (SO4)	mg/L	4.6	2.0	7771550	2.9	2.0	7771550	27	2.0	7771599
Total Cyanide (CN)	mg/L	<0.0050	0.0050	7751452	<0.0050	0.0050	7751452	<0.0050	0.0050	7751452
Turbidity	NTU	180	1.0	7767205	58	0.10	7769485	86	0.10	7767218
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	7748280	<0.0010	0.0010	7748280	<0.0010	0.0010	7748280
Conductivity	uS/cm	100	1.0	7755659	35	1.0	7755657	110	1.0	7755657

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 N/A = Not Applicable  
 (1) Elevated reporting limit due to turbidity.



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283  
Report Date: 2022/01/27

Anaconda Mining Inc  
Site Location: GOLDBORO  
Your P.O. #: 0267

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		RKL830			RKL831			RKL832		
Sampling Date		2021/12/17 08:30			2021/12/17 08:10			2021/12/17 09:45		
COC Number		N/A			N/A			N/A		
	UNITS	MW51-A	RDL	QC Batch	MW51-B	RDL	QC Batch	MW54-A	RDL	QC Batch
<b>Calculated Parameters</b>										
Anion Sum	me/L	0.360	N/A	7738597	1.84	N/A	7738597	0.680	N/A	7738597
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	7.3	1.0	7738592	73	1.0	7738592	17	1.0	7738592
Calculated TDS	mg/L	25	1.0	7738603	100	1.0	7738603	47	1.0	7738603
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	7738592	<1.0	1.0	7738592	<1.0	1.0	7738592
Cation Sum	me/L	0.310	N/A	7738597	1.61	N/A	7738597	0.580	N/A	7738597
Hardness (CaCO3)	mg/L	4.9	1.0	7738595	65	1.0	7738595	12	1.0	7738595
Ion Balance (% Difference)	%	7.46	N/A	7738596	6.67	N/A	7738596	7.94	N/A	7738596
Langelier Index (@ 20C)	N/A	-3.92		7738601	-0.211		7738601	-2.76		7738601
Langelier Index (@ 4C)	N/A	-4.17		7738602	-0.462		7738602	-3.01		7738602
Nitrate (N)	mg/L	0.097	0.050	7738599	0.21	0.050	7738599	<0.050	0.050	7738599
Saturation pH (@ 20C)	N/A	10.4		7738601	8.12		7738601	9.57		7738601
Saturation pH (@ 4C)	N/A	10.6		7738602	8.37		7738602	9.82		7738602
<b>Inorganics</b>										
Total Alkalinity (Total as CaCO3)	mg/L	7.3	5.0	7770060	74	5.0	7770060	17	5.0	7770060
Total Chemical Oxygen Demand	mg/L	<20	20	7757283	<20	20	7757283	24	20	7757283
Dissolved Chloride (Cl-)	mg/L	4.1	1.0	7771598	4.6	1.0	7771598	5.8	1.0	7771598
Colour	TCU	<5.0	5.0	7771601	<5.0	5.0	7771601	<5.0	5.0	7771601
Nitrate + Nitrite (N)	mg/L	0.097	0.050	7771603	0.21	0.050	7771603	<0.050	0.050	7771603
Nitrite (N)	mg/L	<0.010	0.010	7771604	<0.010	0.010	7771604	<0.010	0.010	7771604
Nitrogen (Ammonia Nitrogen)	mg/L	<0.050	0.050	7750655	<0.050	0.050	7750655	<0.050	0.050	7750655
Dissolved Organic Carbon (C)	mg/L	1.7	0.5	7744513	1.5	0.5	7753720	1.5	0.5	7744523
Total Organic Carbon (C)	mg/L	0.91	0.50	7753580	1.6	0.50	7753580	1.2	0.50	7753580
Orthophosphate (P)	mg/L	<0.010	0.010	7771602	<0.010	0.010	7771602	<0.010	0.010	7771602
pH	pH	6.47		7755656	7.90		7755656	6.81		7755656
Dissolved Phosphorus	mg/L	<0.020	0.020	7748236	<0.020	0.020	7748236	<0.020	0.020	7752245
Total Phosphorus	mg/L	0.022	0.020	7756983	0.048	0.020	7756983	1.1	0.040	7756983
Reactive Silica (SiO2)	mg/L	4.5	0.50	7771600	6.8	0.50	7771600	9.3	0.50	7771600
Total Suspended Solids	mg/L	940	17	7748963	76	2.5	7748963	14	1.0	7748963
Dissolved Sulphate (SO4)	mg/L	4.4	2.0	7771599	10	2.0	7771599	8.4	2.0	7771599
Total Cyanide (CN)	mg/L	<0.0050	0.0050	7751452	<0.0050	0.0050	7751452	<0.0050	0.0050	7751452
Turbidity	NTU	7.7	0.10	7769485	49	0.10	7767218	170	1.0	7767218
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	7748280	<0.0010	0.0010	7748280	<0.0010	0.0010	7748280
Conductivity	uS/cm	36	1.0	7755657	160	1.0	7755657	67	1.0	7755657
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable										



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283  
Report Date: 2022/01/27

Anaconda Mining Inc  
Site Location: GOLDBORO  
Your P.O. #: 0267

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		RKL833			RKL834			RKL835		
Sampling Date		2021/12/17 09:30			2021/12/17 10:30			2021/12/17 10:10		
COC Number		N/A			N/A			N/A		
	UNITS	MW54-B	RDL	QC Batch	MW55-A	RDL	QC Batch	MW55-B	RDL	QC Batch
<b>Calculated Parameters</b>										
Anion Sum	me/L	1.69	N/A	7738597	1.07	N/A	7738597	10.6	N/A	7738597
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	72	1.0	7738592	21	1.0	7738592	100	1.0	7738592
Calculated TDS	mg/L	97	1.0	7738603	68	1.0	7738603	690	1.0	7738603
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	7738592	<1.0	1.0	7738592	<1.0	1.0	7738592
Cation Sum	me/L	1.52	N/A	7738597	0.960	N/A	7738597	9.97	N/A	7738597
Hardness (CaCO3)	mg/L	60	1.0	7738595	7.6	1.0	7738595	92	1.0	7738595
Ion Balance (% Difference)	%	5.30	N/A	7738596	5.42	N/A	7738596	2.92	N/A	7738596
Langelier Index (@ 20C)	N/A	-0.438		7738601	-2.99		7738601	-0.0520		7738601
Langelier Index (@ 4C)	N/A	-0.690		7738602	-3.24		7738602	-0.299		7738602
Nitrate (N)	mg/L	<0.050	0.050	7738599	<0.050	0.050	7738599	<0.050	0.050	7738599
Saturation pH (@ 20C)	N/A	8.18		7738601	9.72		7738601	8.01		7738601
Saturation pH (@ 4C)	N/A	8.43		7738602	9.97		7738602	8.25		7738602
<b>Inorganics</b>										
Total Alkalinity (Total as CaCO3)	mg/L	72	5.0	7770060	21	5.0	7770060	100	25	7770060
Total Chemical Oxygen Demand	mg/L	<20	20	7757283	72	20	7757283	210	20	7757283
Dissolved Chloride (Cl-)	mg/L	4.4	1.0	7771598	9.9	1.0	7771598	56	1.0	7771598
Colour	TCU	<5.0	5.0	7771601	12	5.0	7771601	8.7	5.0	7771601
Nitrate + Nitrite (N)	mg/L	<0.050	0.050	7771603	<0.050	0.050	7771603	<0.050	0.050	7771603
Nitrite (N)	mg/L	<0.010	0.010	7771604	<0.010	0.010	7771604	<0.010	0.010	7771604
Nitrogen (Ammonia Nitrogen)	mg/L	<0.050	0.050	7750655	<0.050	0.050	7750655	<0.050	0.050	7750655
Dissolved Organic Carbon (C)	mg/L	<0.5	0.5	7744525	5.0	0.5	7744525	46	0.5	7753720
Total Organic Carbon (C)	mg/L	0.72	0.50	7753580	5.4	0.50	7753580	49 (1)	5.0	7756925
Orthophosphate (P)	mg/L	<0.010	0.010	7771602	<0.010	0.010	7771602	0.019	0.010	7771602
pH	pH	7.74		7755656	6.73		7755658	7.96		7755662
Dissolved Phosphorus	mg/L	<0.020	0.020	7752245	<0.020	0.020	7752245	<0.020	0.020	7748236
Total Phosphorus	mg/L	0.12	0.020	7756983	0.20	0.020	7756983	0.26	0.020	7756983
Reactive Silica (SiO2)	mg/L	12	0.50	7771600	3.8	0.50	7771600	9.0	0.50	7771600
Total Suspended Solids	mg/L	12	1.0	7748963	660	5.0	7748963	370	5.0	7750826
Dissolved Sulphate (SO4)	mg/L	5.8	2.0	7771599	18	2.0	7771599	330	10	7771599
Total Cyanide (CN)	mg/L	<0.0050	0.0050	7751452	<0.0050	0.0050	7751452	<0.0050	0.0050	7751452
Turbidity	NTU	36	0.10	7767218	46	0.10	7769485	95	0.10	7769485
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	7748280	<0.0010	0.0010	7748280	<0.0010	0.0010	7748280
Conductivity	uS/cm	140	1.0	7755657	110	1.0	7755659	1100	1.0	7755663

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

N/A = Not Applicable

(1) Elevated reporting limit due to sample matrix.



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283  
Report Date: 2022/01/27

Anaconda Mining Inc  
Site Location: GOLDBORO  
Your P.O. #: 0267

### RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		RKL836			RKL837			RKL838		
Sampling Date		2021/12/17 11:15			2021/12/17 11:00			2021/12/17 12:00		
COC Number		N/A			N/A			N/A		
	UNITS	MW56-A	RDL	QC Batch	MW56-B	RDL	QC Batch	DUP-B	RDL	QC Batch
<b>Calculated Parameters</b>										
Anion Sum	me/L	0.420	N/A	7738597	1.55	N/A	7738597	1.83	N/A	7738597
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	13	1.0	7738592	57	1.0	7738592	73	1.0	7738592
Calculated TDS	mg/L	29	1.0	7738603	92	1.0	7738603	100	1.0	7738603
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	7738592	<1.0	1.0	7738592	<1.0	1.0	7738592
Cation Sum	me/L	0.380	N/A	7738597	1.42	N/A	7738597	1.63	N/A	7738597
Hardness (CaCO3)	mg/L	9.3	1.0	7738595	47	1.0	7738595	65	1.0	7738595
Ion Balance (% Difference)	%	5.00	N/A	7738596	4.38	N/A	7738596	5.78	N/A	7738596
Langelier Index (@ 20C)	N/A	-2.90		7738601	-0.500		7738601	-0.0890		7738601
Langelier Index (@ 4C)	N/A	-3.15		7738602	-0.751		7738602	-0.340		7738602
Nitrate (N)	mg/L	<0.050	0.050	7738599	<0.050	0.050	7738599	0.19	0.050	7738599
Saturation pH (@ 20C)	N/A	9.73		7738601	8.40		7738601	8.11		7738601
Saturation pH (@ 4C)	N/A	9.98		7738602	8.65		7738602	8.36		7738602
<b>Inorganics</b>										
Total Alkalinity (Total as CaCO3)	mg/L	13	5.0	7770060	57	5.0	7770060	74	5.0	7770060
Total Chemical Oxygen Demand	mg/L	<20	20	7757283	26	20	7750848	<20	20	7750848
Dissolved Chloride (Cl-)	mg/L	3.6	1.0	7771598	7.6	1.0	7771598	4.6	1.0	7771598
Colour	TCU	<5.0	5.0	7771601	27	5.0	7771601	<5.0	5.0	7771601
Nitrate + Nitrite (N)	mg/L	<0.050	0.050	7771603	<0.050	0.050	7771603	0.20	0.050	7771603
Nitrite (N)	mg/L	<0.010	0.010	7771604	<0.010	0.010	7771604	0.013	0.010	7771604
Nitrogen (Ammonia Nitrogen)	mg/L	<0.050	0.050	7750655	<0.050	0.050	7750655	<0.050	0.050	7750655
Dissolved Organic Carbon (C)	mg/L	1.1	0.5	7744525	5.4	0.5	7744513	1.0	0.5	7744525
Total Organic Carbon (C)	mg/L	0.97	0.50	7756894	6.0	0.50	7756894	1.6	0.50	7753580
Orthophosphate (P)	mg/L	<0.010	0.010	7771602	<0.010	0.010	7771602	<0.010	0.010	7771602
pH	pH	6.82		7755658	7.90		7756784	8.02		7755662
Dissolved Phosphorus	mg/L	<0.020	0.020	7752245	<0.020	0.020	7748236	<0.020	0.020	7752245
Total Phosphorus	mg/L	<0.020	0.020	7756983	0.048	0.020	7748365	0.058	0.020	7748365
Reactive Silica (SiO2)	mg/L	6.1	0.50	7771600	12	0.50	7771600	7.2	0.50	7771600
Total Suspended Solids	mg/L	190	5.0	7750826	24	2.0	7750826	100	5.0	7750826
Dissolved Sulphate (SO4)	mg/L	2.1	2.0	7771599	8.8	2.0	7771599	9.8	2.0	7771599
Total Cyanide (CN)	mg/L	<0.0050	0.0050	7751452	<0.0050	0.0050	7751454	<0.0050	0.0050	7751454
Turbidity	NTU	30	0.10	7769485	46	0.10	7769485	37	0.10	7769485
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	7748280	<0.0010	0.0010	7748288	<0.0010	0.0010	7748288
Conductivity	uS/cm	42	1.0	7755659	140	1.0	7756783	160	1.0	7755663
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable										



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283  
Report Date: 2022/01/27

Anaconda Mining Inc  
Site Location: GOLDBORO  
Your P.O. #: 0267

### MERCURY BY COLD VAPOUR AA (WATER)

<b>Bureau Veritas ID</b>		RKL800	RKL801	RKL802	RKL803		RKL804		
<b>Sampling Date</b>		2021/12/16 10:10	2021/12/16 09:50	2021/12/16 11:30	2021/12/16 11:10		2021/12/16 12:10		
<b>COC Number</b>		N/A	N/A	N/A	N/A		N/A		
	<b>UNITS</b>	<b>MW5-A</b>	<b>MW5-B</b>	<b>MW6-A</b>	<b>MW6-B</b>	<b>QC Batch</b>	<b>MW30-A</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>									
Dissolved Mercury (Hg)	ug/L	<0.013	<0.013	<0.013	<0.013	7779414	0.015	0.013	7774792
Total Mercury (Hg)	ug/L	<0.013	<0.013	<0.013	<0.013	7779137	<0.013	0.013	7779426
RDL = Reportable Detection Limit QC Batch = Quality Control Batch									

<b>Bureau Veritas ID</b>		RKL805		RKL806		RKL807		RKL808		
<b>Sampling Date</b>		2021/12/16 12:30		2021/12/16 10:50		2021/12/16 10:30		2021/12/16 09:25		
<b>COC Number</b>		N/A		N/A		N/A		N/A		
	<b>UNITS</b>	<b>MW30-B</b>	<b>QC Batch</b>	<b>MW42-A</b>	<b>QC Batch</b>	<b>MW42-B</b>	<b>QC Batch</b>	<b>MW43-A</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>										
Dissolved Mercury (Hg)	ug/L	<0.013	7774792	0.013	7774792	0.013	7774792	0.035	0.013	7774792
Total Mercury (Hg)	ug/L	<0.013	7779137	<0.013	7779426	<0.013	7779137	<0.013	0.013	7772947
RDL = Reportable Detection Limit QC Batch = Quality Control Batch										

<b>Bureau Veritas ID</b>		RKL809	RKL810	RKL811	RKL812	RKL813	RKL814		
<b>Sampling Date</b>		2021/12/16 09:10	2021/12/16 13:30	2021/12/16 14:20	2021/12/16 14:00	2021/12/16 14:55	2021/12/16 14:35		
<b>COC Number</b>		N/A	N/A	N/A	N/A	N/A	N/A		
	<b>UNITS</b>	<b>MW43-B</b>	<b>MW46-A</b>	<b>MW7-A</b>	<b>MW7-B</b>	<b>MW15-A</b>	<b>MW15-B</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>									
Dissolved Mercury (Hg)	ug/L	0.013	<0.013	0.013	0.013	0.013	0.015	0.013	7774792
Total Mercury (Hg)	ug/L	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	0.013	7779137
RDL = Reportable Detection Limit QC Batch = Quality Control Batch									

<b>Bureau Veritas ID</b>		RKL815		RKL816	RKL817	RKL818		RKL819		
<b>Sampling Date</b>		2021/12/16 15:00		2021/12/16 15:10	2021/12/16 16:05	2021/12/16 15:50		2021/12/16 12:00		
<b>COC Number</b>		N/A		N/A	N/A	N/A		N/A		
	<b>UNITS</b>	<b>MW20-A</b>	<b>QC Batch</b>	<b>MW20-B</b>	<b>MW21-A</b>	<b>MW21-B</b>	<b>QC Batch</b>	<b>DUP-D</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>										
Dissolved Mercury (Hg)	ug/L	0.017	7774792	0.015	0.013	0.013	7774792	<0.013	0.013	7779414
Total Mercury (Hg)	ug/L	<0.013	7779426	<0.013	<0.013	<0.013	7779137	<0.013	0.013	7779137
RDL = Reportable Detection Limit QC Batch = Quality Control Batch										



BUREAU  
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Bureau Veritas Job #: C1Z7283

Report Date: 2022/01/27

Anaconda Mining Inc

Site Location: GOLDBORO

Your P.O. #: 0267

### MERCURY BY COLD VAPOUR AA (WATER)

<b>Bureau Veritas ID</b>		RKL821		RKL822		RKL823		RKL824		
<b>Sampling Date</b>		2021/12/16 12:05		2021/12/17 09:05		2021/12/17 08:50		2021/12/16 13:25		
<b>COC Number</b>		N/A		N/A		N/A		N/A		
	<b>UNITS</b>	<b>DUP-A</b>	<b>QC Batch</b>	<b>MW1-A</b>	<b>QC Batch</b>	<b>MW1-B</b>	<b>QC Batch</b>	<b>MW16-A</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>										
Dissolved Mercury (Hg)	ug/L	0.020	7774792	<0.013	7779414	<0.013	7779484	<0.013	0.013	7779414
Total Mercury (Hg)	ug/L	<0.013	7779137	<0.013	7779426	<0.013	7779426	<0.013	0.013	7779524
RDL = Reportable Detection Limit QC Batch = Quality Control Batch										

<b>Bureau Veritas ID</b>		RKL825		RKL826		RKL827		RKL828		
<b>Sampling Date</b>		2021/12/16 13:15		2021/12/16 12:15		2021/12/17 12:15		2021/12/17 12:08		
<b>COC Number</b>		N/A		N/A		N/A		N/A		
	<b>UNITS</b>	<b>MW16-B</b>	<b>QC Batch</b>	<b>MW23-A</b>	<b>QC Batch</b>	<b>MW23-B</b>	<b>QC Batch</b>	<b>MW29-A</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>										
Dissolved Mercury (Hg)	ug/L	<0.013	7779414	<0.013	7779414	<0.013	7779484	0.013	0.013	7774792
Total Mercury (Hg)	ug/L	<0.013	7779426	<0.013	7779137	0.015	7779426	<0.013	0.013	7779426
RDL = Reportable Detection Limit QC Batch = Quality Control Batch										

<b>Bureau Veritas ID</b>		RKL829	RKL830		RKL831		RKL832	RKL833		
<b>Sampling Date</b>		2021/12/17 12:55	2021/12/17 08:30		2021/12/17 08:10		2021/12/17 09:45	2021/12/17 09:30		
<b>COC Number</b>		N/A	N/A		N/A		N/A	N/A		
	<b>UNITS</b>	<b>MW29-B</b>	<b>MW51-A</b>	<b>QC Batch</b>	<b>MW51-B</b>	<b>QC Batch</b>	<b>MW54-A</b>	<b>MW54-B</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>										
Dissolved Mercury (Hg)	ug/L	<0.013	<0.013	7779414	0.015	7774792	<0.013	<0.013	0.013	7779414
Total Mercury (Hg)	ug/L	0.023	<0.013	7779524	<0.013	7779524	<0.013	<0.013	0.013	7779524
RDL = Reportable Detection Limit QC Batch = Quality Control Batch										

<b>Bureau Veritas ID</b>		RKL834		RKL835		RKL836		RKL837		
<b>Sampling Date</b>		2021/12/17 10:30		2021/12/17 10:10		2021/12/17 11:15		2021/12/17 11:00		
<b>COC Number</b>		N/A		N/A		N/A		N/A		
	<b>UNITS</b>	<b>MW55-A</b>	<b>QC Batch</b>	<b>MW55-B</b>	<b>QC Batch</b>	<b>MW56-A</b>	<b>QC Batch</b>	<b>MW56-B</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>										
Dissolved Mercury (Hg)	ug/L	<0.013	7774771	<0.013	7779414	<0.013	7779414	0.015	0.013	7774792
Total Mercury (Hg)	ug/L	<0.013	7779524	<0.013	7779426	<0.013	7779524	<0.013	0.013	7779524
RDL = Reportable Detection Limit QC Batch = Quality Control Batch										





Bureau Veritas Job #: C1Z7283  
 Report Date: 2022/01/27

Anaconda Mining Inc  
 Site Location: GOLDBORO  
 Your P.O. #: 0267

**MERCURY BY COLD VAPOUR AA (WATER)**

<b>Bureau Veritas ID</b>		RKL838		
<b>Sampling Date</b>		2021/12/17 12:00		
<b>COC Number</b>		N/A		
	<b>UNITS</b>	<b>DUP-B</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Metals</b>				
Dissolved Mercury (Hg)	ug/L	<0.013	0.013	7779414
Total Mercury (Hg)	ug/L	<0.013	0.013	7779524
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283  
Report Date: 2022/01/27

Anaconda Mining Inc  
Site Location: GOLDBORO  
Your P.O. #: 0267

### ELEMENTS BY ICP/MS (WATER)

Bureau Veritas ID		RKL797	RKL798	RKL799	RKL800	RKL801	RKL802	RKL803		
Sampling Date		2021/12/15 16:15	2021/12/15 16:30	2021/12/15 16:45	2021/12/16 10:10	2021/12/16 09:50	2021/12/16 11:30	2021/12/16 11:10		
COC Number		N/A	N/A	N/A	N/A	N/A	N/A	N/A		
	UNITS	MW26-B	MW26-A	MW46-B	MW5-A	MW5-B	MW6-A	MW6-B	RDL	QC Batch

Metals										
Dissolved Aluminum (Al)	ug/L	55	21	96	160	100	370	160	5.0	7750741
Dissolved Antimony (Sb)	ug/L	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	3.0	1.0	7750741
Dissolved Arsenic (As)	ug/L	180	<1.0	15	3.1	<1.0	<1.0	32	1.0	7750741
Dissolved Barium (Ba)	ug/L	3.5	9.1	16	19	15	9.8	3.7	1.0	7750741
Dissolved Beryllium (Be)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7750741
Dissolved Bismuth (Bi)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	7750741
Dissolved Boron (B)	ug/L	230	<50	<50	<50	<50	<50	140	50	7750741
Dissolved Cadmium (Cd)	ug/L	<0.010	0.052	<0.010	<0.010	<0.010	0.031	<0.010	0.010	7750741
Dissolved Calcium (Ca)	ug/L	12000	3300	31000	14000	17000	1300	3600	100	7750741
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	<1.0	3.3	<1.0	1.4	<1.0	1.0	7750741
Dissolved Cobalt (Co)	ug/L	<0.40	1.4	0.47	0.92	3.3	2.2	<0.40	0.40	7750741
Dissolved Copper (Cu)	ug/L	<0.50	3.0	1.3	0.73	2.2	26	1.4	0.50	7750741
Dissolved Iron (Fe)	ug/L	<50	<50	120	7000	670	95	85	50	7750741
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	<0.50	1.0	<0.50	1.0	<0.50	0.50	7750741
Dissolved Magnesium (Mg)	ug/L	1400	910	4800	1500	1800	660	490	100	7750741
Dissolved Manganese (Mn)	ug/L	91	120	250	260	140	44	9.2	2.0	7750741
Dissolved Molybdenum (Mo)	ug/L	7.7	<2.0	21	8.1	<2.0	<2.0	2.5	2.0	7750741
Dissolved Nickel (Ni)	ug/L	<2.0	4.9	4.9	4.3	4.1	9.5	<2.0	2.0	7750741
Dissolved Phosphorus (P)	ug/L	<100	<100	<100	<100	<100	<100	<100	100	7750741
Dissolved Potassium (K)	ug/L	3700	980	4900	3000	2200	340	2700	100	7750741
Dissolved Selenium (Se)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7750741
Dissolved Silver (Ag)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7750741
Dissolved Sodium (Na)	ug/L	46000	6000	140000	8400	6700	5000	54000	100	7750741
Dissolved Strontium (Sr)	ug/L	140	26	300	49	53	6.6	53	2.0	7750741
Dissolved Thallium (Tl)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7750741
Dissolved Tin (Sn)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	7750741
Dissolved Titanium (Ti)	ug/L	<2.0	<2.0	7.8	5.1	<2.0	2.5	4.1	2.0	7750741
Dissolved Uranium (U)	ug/L	1.9	<0.10	25	0.43	0.27	<0.10	1.3	0.10	7750741
Dissolved Vanadium (V)	ug/L	<2.0	<2.0	<2.0	2.1	<2.0	<2.0	<2.0	2.0	7750741
Dissolved Zinc (Zn)	ug/L	<5.0	6.2	<5.0	<5.0	11	15	<5.0	5.0	7750741

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283  
Report Date: 2022/01/27

Anaconda Mining Inc  
Site Location: GOLDBORO  
Your P.O. #: 0267

### ELEMENTS BY ICP/MS (WATER)

Bureau Veritas ID		RKL804	RKL805	RKL806	RKL807			RKL808		
Sampling Date		2021/12/16 12:10	2021/12/16 12:30	2021/12/16 10:50	2021/12/16 10:30			2021/12/16 09:25		
COC Number		N/A	N/A	N/A	N/A			N/A		
	UNITS	MW30-A	MW30-B	MW42-A	MW42-B	RDL	QC Batch	MW43-A	RDL	QC Batch
<b>Metals</b>										
Dissolved Aluminum (Al)	mg/L							0.0320	0.0050	7756095
Dissolved Aluminum (Al)	ug/L	190	<5.0	<5.0	38	5.0	7750741			
Dissolved Antimony (Sb)	mg/L							<0.0010	0.0010	7756095
Dissolved Antimony (Sb)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	7750741			
Dissolved Arsenic (As)	mg/L							<0.0010	0.0010	7756095
Dissolved Arsenic (As)	ug/L	<1.0	8.2	<1.0	12	1.0	7750741			
Dissolved Barium (Ba)	mg/L							0.0131	0.0010	7756095
Dissolved Barium (Ba)	ug/L	9.6	8.8	17	8.0	1.0	7750741			
Dissolved Beryllium (Be)	mg/L							<0.00010	0.00010	7756095
Dissolved Beryllium (Be)	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	7750741			
Dissolved Bismuth (Bi)	mg/L							<0.0020	0.0020	7756095
Dissolved Bismuth (Bi)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	7750741			
Dissolved Boron (B)	mg/L							<0.050	0.050	7756095
Dissolved Boron (B)	ug/L	<50	<50	<50	<50	50	7750741			
Dissolved Cadmium (Cd)	mg/L							0.000069	0.000010	7756095
Dissolved Cadmium (Cd)	ug/L	0.014	0.035	<0.010	<0.010	0.010	7750741			
Dissolved Calcium (Ca)	mg/L							13.7	0.10	7756095
Dissolved Calcium (Ca)	ug/L	410	32000	2700	22000	100	7750741			
Dissolved Chromium (Cr)	mg/L							<0.0010	0.0010	7756095
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	7750741			
Dissolved Cobalt (Co)	mg/L							0.0118	0.00040	7756095
Dissolved Cobalt (Co)	ug/L	2.6	0.55	12	<0.40	0.40	7750741			
Dissolved Copper (Cu)	mg/L							0.00417	0.00050	7756095
Dissolved Copper (Cu)	ug/L	14	<0.50	0.95	0.63	0.50	7750741			
Dissolved Iron (Fe)	mg/L							0.606	0.050	7756095
Dissolved Iron (Fe)	ug/L	840	<50	13000	<50	50	7750741			
Dissolved Lead (Pb)	mg/L							<0.00050	0.00050	7756095
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	7750741			
Dissolved Magnesium (Mg)	mg/L							2.22	0.10	7756095
Dissolved Magnesium (Mg)	ug/L	370	3300	760	3000	100	7750741			
Dissolved Manganese (Mn)	mg/L							2.25	0.0020	7756095
Dissolved Manganese (Mn)	ug/L	74	160	1400	69	2.0	7750741			
Dissolved Molybdenum (Mo)	mg/L							<0.0020	0.0020	7756095
Dissolved Molybdenum (Mo)	ug/L	<2.0	<2.0	4.0	5.0	2.0	7750741			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch										



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283  
Report Date: 2022/01/27

Anaconda Mining Inc  
Site Location: GOLDBORO  
Your P.O. #: 0267

### ELEMENTS BY ICP/MS (WATER)

Bureau Veritas ID		RKL804	RKL805	RKL806	RKL807			RKL808		
Sampling Date		2021/12/16 12:10	2021/12/16 12:30	2021/12/16 10:50	2021/12/16 10:30			2021/12/16 09:25		
COC Number		N/A	N/A	N/A	N/A			N/A		
	UNITS	MW30-A	MW30-B	MW42-A	MW42-B	RDL	QC Batch	MW43-A	RDL	QC Batch
Dissolved Nickel (Ni)	mg/L							0.0077	0.0020	7756095
Dissolved Nickel (Ni)	ug/L	8.2	4.8	36	<2.0	2.0	7750741			
Dissolved Phosphorus (P)	mg/L							<0.10	0.10	7756095
Dissolved Phosphorus (P)	ug/L	<100	<100	<100	<100	100	7750741			
Dissolved Potassium (K)	mg/L							3.03	0.10	7756095
Dissolved Potassium (K)	ug/L	620	2600	2000	7100	100	7750741			
Dissolved Selenium (Se)	mg/L							<0.00050	0.00050	7756095
Dissolved Selenium (Se)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	7750741			
Dissolved Silver (Ag)	mg/L							<0.00010	0.00010	7756095
Dissolved Silver (Ag)	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	7750741			
Dissolved Sodium (Na)	mg/L							6.78	0.10	7756095
Dissolved Sodium (Na)	ug/L	4900	8400	8300	27000	100	7750741			
Dissolved Strontium (Sr)	mg/L							0.0989	0.0020	7756095
Dissolved Strontium (Sr)	ug/L	6.0	150	25	310	2.0	7750741			
Dissolved Thallium (Tl)	mg/L							<0.00010	0.00010	7756095
Dissolved Thallium (Tl)	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	7750741			
Dissolved Tin (Sn)	mg/L							<0.0020	0.0020	7756095
Dissolved Tin (Sn)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	7750741			
Dissolved Titanium (Ti)	mg/L							<0.0020	0.0020	7756095
Dissolved Titanium (Ti)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	7750741			
Dissolved Uranium (U)	mg/L							0.00018	0.00010	7756095
Dissolved Uranium (U)	ug/L	<0.10	0.91	<0.10	1.4	0.10	7750741			
Dissolved Vanadium (V)	mg/L							<0.0020	0.0020	7756095
Dissolved Vanadium (V)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	7750741			
Dissolved Zinc (Zn)	mg/L							0.0166	0.0050	7756095
Dissolved Zinc (Zn)	ug/L	12	<5.0	46	<5.0	5.0	7750741			

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283

Report Date: 2022/01/27

Anaconda Mining Inc

Site Location: GOLDBORO

Your P.O. #: 0267

### ELEMENTS BY ICP/MS (WATER)

Bureau Veritas ID		RKL809	RKL810		RKL811	RKL812	RKL813		RKL814		
Sampling Date		2021/12/16 09:10	2021/12/16 13:30		2021/12/16 14:20	2021/12/16 14:00	2021/12/16 14:55		2021/12/16 14:35		
COC Number		N/A	N/A		N/A	N/A	N/A		N/A		
	UNITS	MW43-B	MW46-A	QC Batch	MW7-A	MW7-B	MW15-A	RDL	MW15-B	RDL	QC Batch

Metals											
Dissolved Aluminum (Al)	ug/L	13	20	7750741	140	9.5	79	5.0	120	5.0	7756096
Dissolved Antimony (Sb)	ug/L	<1.0	<1.0	7750741	<1.0	<1.0	<1.0	1.0	<1.0	1.0	7756096
Dissolved Arsenic (As)	ug/L	<1.0	3.6	7750741	<1.0	47	17	1.0	600	10	7756096
Dissolved Barium (Ba)	ug/L	5.4	9.0	7750741	12	12	28	1.0	16	1.0	7756096
Dissolved Beryllium (Be)	ug/L	<0.10	<0.10	7750741	<0.10	<0.10	<0.10	0.10	<0.10	0.10	7756096
Dissolved Bismuth (Bi)	ug/L	<2.0	<2.0	7750741	<2.0	<2.0	<2.0	2.0	<2.0	2.0	7756096
Dissolved Boron (B)	ug/L	<50	<50	7750741	<50	<50	<50	50	<50	50	7756096
Dissolved Cadmium (Cd)	ug/L	0.016	0.015	7750741	0.020	<0.010	<0.010	0.010	<0.010	0.010	7756096
Dissolved Calcium (Ca)	ug/L	16000	6000	7750741	640	37000	14000	100	41000	100	7756096
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	7750741	<1.0	<1.0	2.5	1.0	<1.0	1.0	7756096
Dissolved Cobalt (Co)	ug/L	0.43	2.5	7750741	8.6	<0.40	1.5	0.40	<0.40	0.40	7756096
Dissolved Copper (Cu)	ug/L	1.6	2.5	7750741	43	<0.50	<0.50	0.50	0.59	0.50	7756096
Dissolved Iron (Fe)	ug/L	<50	<50	7750741	61	<50	49000	50	160	50	7756096
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	7750741	<0.50	<0.50	<0.50	0.50	<0.50	0.50	7756096
Dissolved Magnesium (Mg)	ug/L	2600	1000	7750741	440	5700	3100	100	5600	100	7756096
Dissolved Manganese (Mn)	ug/L	99	74	7750741	75	250	1300	2.0	530	2.0	7756096
Dissolved Molybdenum (Mo)	ug/L	<2.0	<2.0	7750741	<2.0	<2.0	6.1	2.0	2.5	2.0	7756096
Dissolved Nickel (Ni)	ug/L	2.4	23	7750741	5.7	<2.0	3.4	2.0	3.2	2.0	7756096
Dissolved Phosphorus (P)	ug/L	<100	<100	7750741	<100	<100	<100	100	<100	100	7756096
Dissolved Potassium (K)	ug/L	2500	1500	7750741	710	1800	4200	100	3800	100	7756096
Dissolved Selenium (Se)	ug/L	<0.50	<0.50	7750741	<0.50	<0.50	<0.50	0.50	<0.50	0.50	7756096
Dissolved Silver (Ag)	ug/L	<0.10	<0.10	7750741	<0.10	<0.10	<0.10	0.10	<0.10	0.10	7756096
Dissolved Sodium (Na)	ug/L	8600	7600	7750741	5700	9900	25000	100	23000	100	7756096
Dissolved Strontium (Sr)	ug/L	71	32	7750741	7.1	850	56	2.0	660	2.0	7756096
Dissolved Thallium (Tl)	ug/L	<0.10	<0.10	7750741	<0.10	<0.10	<0.10	0.10	<0.10	0.10	7756096
Dissolved Tin (Sn)	ug/L	<2.0	<2.0	7750741	<2.0	<2.0	<2.0	2.0	<2.0	2.0	7756096
Dissolved Titanium (Ti)	ug/L	<2.0	<2.0	7750741	<2.0	<2.0	2.4	2.0	6.9	2.0	7756096
Dissolved Uranium (U)	ug/L	0.26	<0.10	7750741	<0.10	2.1	0.13	0.10	2.7	0.10	7756096
Dissolved Vanadium (V)	ug/L	<2.0	<2.0	7750741	<2.0	<2.0	2.4	2.0	<2.0	2.0	7756096
Dissolved Zinc (Zn)	ug/L	7.8	5.8	7750741	55	<5.0	<5.0	5.0	5.1	5.0	7756096

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283  
Report Date: 2022/01/27

Anaconda Mining Inc  
Site Location: GOLDBORO  
Your P.O. #: 0267

### ELEMENTS BY ICP/MS (WATER)

Bureau Veritas ID		RKL815	RKL816	RKL817	RKL818	RKL819	RKL820		
Sampling Date		2021/12/16 15:00	2021/12/16 15:10	2021/12/16 16:05	2021/12/16 15:50	2021/12/16 12:00	2021/12/15 12:00		
COC Number		N/A	N/A	N/A	N/A	N/A	N/A		
	UNITS	MW20-A	MW20-B	MW21-A	MW21-B	DUP-D	DUP-C	RDL	QC Batch
<b>Metals</b>									
Dissolved Aluminum (Al)	ug/L	8.5	6.8	15	7.8	23	60	5.0	7756096
Dissolved Antimony (Sb)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7756096
Dissolved Arsenic (As)	ug/L	6.4	55	<1.0	4.5	3.7	180	1.0	7756096
Dissolved Barium (Ba)	ug/L	24	8.8	9.9	6.2	8.9	3.7	1.0	7756096
Dissolved Beryllium (Be)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7756096
Dissolved Bismuth (Bi)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	7756096
Dissolved Boron (B)	ug/L	<50	<50	<50	<50	<50	240	50	7756096
Dissolved Cadmium (Cd)	ug/L	<0.010	<0.010	0.068	<0.010	0.016	<0.010	0.010	7756096
Dissolved Calcium (Ca)	ug/L	4500	30000	13000	27000	5900	12000	100	7756096
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7756096
Dissolved Cobalt (Co)	ug/L	2.8	<0.40	12	0.63	2.4	<0.40	0.40	7756096
Dissolved Copper (Cu)	ug/L	<0.50	<0.50	1.7	5.1	3.1	<0.50	0.50	7756096
Dissolved Iron (Fe)	ug/L	24000	<50	140	<50	<50	<50	50	7756096
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7756096
Dissolved Magnesium (Mg)	ug/L	1200	5200	1500	4100	1100	1500	100	7756096
Dissolved Manganese (Mn)	ug/L	400	140	770	43	70	92	2.0	7756096
Dissolved Molybdenum (Mo)	ug/L	4.5	<2.0	<2.0	5.6	<2.0	8.1	2.0	7756096
Dissolved Nickel (Ni)	ug/L	20	<2.0	3.0	<2.0	23	<2.0	2.0	7756096
Dissolved Phosphorus (P)	ug/L	<100	<100	<100	<100	<100	<100	100	7756096
Dissolved Potassium (K)	ug/L	1900	2100	1900	3700	1400	3700	100	7756096
Dissolved Selenium (Se)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7756096
Dissolved Silver (Ag)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7756096
Dissolved Sodium (Na)	ug/L	11000	12000	11000	9300	7300	46000	100	7756096
Dissolved Strontium (Sr)	ug/L	41	390	67	120	31	140	2.0	7756096
Dissolved Thallium (Tl)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7756096
Dissolved Tin (Sn)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	7756096
Dissolved Titanium (Ti)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	7756096
Dissolved Uranium (U)	ug/L	<0.10	1.5	0.21	4.1	<0.10	2.0	0.10	7756096
Dissolved Vanadium (V)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	7756096
Dissolved Zinc (Zn)	ug/L	9.7	<5.0	<5.0	<5.0	6.4	<5.0	5.0	7756096
RDL = Reportable Detection Limit									
QC Batch = Quality Control Batch									



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283  
Report Date: 2022/01/27

Anaconda Mining Inc  
Site Location: GOLDBORO  
Your P.O. #: 0267

### ELEMENTS BY ICP/MS (WATER)

Bureau Veritas ID		RKL821			RKL822	RKL823	RKL824	RKL825		
Sampling Date		2021/12/16 12:05			2021/12/17 09:05	2021/12/17 08:50	2021/12/16 13:25	2021/12/16 13:15		
COC Number		N/A			N/A	N/A	N/A	N/A		
	UNITS	DUP-A	RDL	QC Batch	MW1-A	MW1-B	MW16-A	MW16-B	RDL	QC Batch
<b>Metals</b>										
Dissolved Aluminum (Al)	mg/L	0.0319	0.0050	7756095						
Dissolved Aluminum (Al)	ug/L				180	16	21	7.5	5.0	7756096
Dissolved Antimony (Sb)	mg/L	<0.0010	0.0010	7756095						
Dissolved Antimony (Sb)	ug/L				<1.0	<1.0	<1.0	<1.0	1.0	7756096
Dissolved Arsenic (As)	mg/L	<0.0010	0.0010	7756095						
Dissolved Arsenic (As)	ug/L				<1.0	<1.0	54	8.2	1.0	7756096
Dissolved Barium (Ba)	mg/L	0.0127	0.0010	7756095						
Dissolved Barium (Ba)	ug/L				12	6.7	12	5.0	1.0	7756096
Dissolved Beryllium (Be)	mg/L	<0.00010	0.00010	7756095						
Dissolved Beryllium (Be)	ug/L				<0.10	<0.10	<0.10	<0.10	0.10	7756096
Dissolved Bismuth (Bi)	mg/L	<0.0020	0.0020	7756095						
Dissolved Bismuth (Bi)	ug/L				<2.0	<2.0	<2.0	<2.0	2.0	7756096
Dissolved Boron (B)	mg/L	<0.050	0.050	7756095						
Dissolved Boron (B)	ug/L				<50	<50	<50	<50	50	7756096
Dissolved Cadmium (Cd)	mg/L	0.000067	0.000010	7756095						
Dissolved Cadmium (Cd)	ug/L				0.026	0.10	<0.010	<0.010	0.010	7756096
Dissolved Calcium (Ca)	mg/L	13.1	0.10	7756095						
Dissolved Calcium (Ca)	ug/L				450	6500	20000	29000	100	7756096
Dissolved Chromium (Cr)	mg/L	<0.0010	0.0010	7756095						
Dissolved Chromium (Cr)	ug/L				<1.0	<1.0	<1.0	<1.0	1.0	7756096
Dissolved Cobalt (Co)	mg/L	0.0117	0.00040	7756095						
Dissolved Cobalt (Co)	ug/L				3.6	4.9	0.58	<0.40	0.40	7756096
Dissolved Copper (Cu)	mg/L	0.00426	0.00050	7756095						
Dissolved Copper (Cu)	ug/L				9.5	22	2.6	<0.50	0.50	7756096
Dissolved Iron (Fe)	mg/L	0.590	0.050	7756095						
Dissolved Iron (Fe)	ug/L				400	54	<50	<50	50	7756096
Dissolved Lead (Pb)	mg/L	<0.00050	0.00050	7756095						
Dissolved Lead (Pb)	ug/L				<0.50	<0.50	<0.50	<0.50	0.50	7756096
Dissolved Magnesium (Mg)	mg/L	2.17	0.10	7756095						
Dissolved Magnesium (Mg)	ug/L				430	1200	2200	4100	100	7756096
Dissolved Manganese (Mn)	mg/L	2.19	0.0020	7756095						
Dissolved Manganese (Mn)	ug/L				180	120	520	630	2.0	7756096
Dissolved Molybdenum (Mo)	mg/L	<0.0020	0.0020	7756095						
Dissolved Molybdenum (Mo)	ug/L				<2.0	<2.0	9.3	<2.0	2.0	7756096
RDL = Reportable Detection Limit QC Batch = Quality Control Batch										



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283  
Report Date: 2022/01/27

Anaconda Mining Inc  
Site Location: GOLDBORO  
Your P.O. #: 0267

### ELEMENTS BY ICP/MS (WATER)

Bureau Veritas ID		RKL821			RKL822	RKL823	RKL824	RKL825		
Sampling Date		2021/12/16 12:05			2021/12/17 09:05	2021/12/17 08:50	2021/12/16 13:25	2021/12/16 13:15		
COC Number		N/A			N/A	N/A	N/A	N/A		
	UNITS	DUP-A	RDL	QC Batch	MW1-A	MW1-B	MW16-A	MW16-B	RDL	QC Batch
Dissolved Nickel (Ni)	mg/L	0.0076	0.0020	7756095						
Dissolved Nickel (Ni)	ug/L				3.2	3.3	7.1	<2.0	2.0	7756096
Dissolved Phosphorus (P)	mg/L	<0.10	0.10	7756095						
Dissolved Phosphorus (P)	ug/L				<100	<100	<100	<100	100	7756096
Dissolved Potassium (K)	mg/L	2.87	0.10	7756095						
Dissolved Potassium (K)	ug/L				630	1500	3100	2300	100	7756096
Dissolved Selenium (Se)	mg/L	<0.00050	0.00050	7756095						
Dissolved Selenium (Se)	ug/L				<0.50	<0.50	<0.50	<0.50	0.50	7756096
Dissolved Silver (Ag)	mg/L	<0.00010	0.00010	7756095						
Dissolved Silver (Ag)	ug/L				0.21	<0.10	<0.10	<0.10	0.10	7756096
Dissolved Sodium (Na)	mg/L	6.59	0.10	7756095						
Dissolved Sodium (Na)	ug/L				4600	8000	20000	11000	100	7756096
Dissolved Strontium (Sr)	mg/L	0.0967	0.0020	7756095						
Dissolved Strontium (Sr)	ug/L				8.4	30	120	270	2.0	7756096
Dissolved Thallium (Tl)	mg/L	<0.00010	0.00010	7756095						
Dissolved Thallium (Tl)	ug/L				<0.10	<0.10	<0.10	<0.10	0.10	7756096
Dissolved Tin (Sn)	mg/L	<0.0020	0.0020	7756095						
Dissolved Tin (Sn)	ug/L				<2.0	<2.0	<2.0	<2.0	2.0	7756096
Dissolved Titanium (Ti)	mg/L	<0.0020	0.0020	7756095						
Dissolved Titanium (Ti)	ug/L				<2.0	<2.0	<2.0	<2.0	2.0	7756096
Dissolved Uranium (U)	mg/L	0.00014	0.00010	7756095						
Dissolved Uranium (U)	ug/L				<0.10	<0.10	1.0	0.59	0.10	7756096
Dissolved Vanadium (V)	mg/L	<0.0020	0.0020	7756095						
Dissolved Vanadium (V)	ug/L				<2.0	<2.0	<2.0	<2.0	2.0	7756096
Dissolved Zinc (Zn)	mg/L	0.0278	0.0050	7756095						
Dissolved Zinc (Zn)	ug/L				7.8	20	<5.0	<5.0	5.0	7756096

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch





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Bureau Veritas Job #: C1Z7283  
Report Date: 2022/01/27

Anaconda Mining Inc  
Site Location: GOLDBORO  
Your P.O. #: 0267

### ELEMENTS BY ICP/MS (WATER)

Bureau Veritas ID		RKL826	RKL827	RKL828	RKL829	RKL830		RKL831		
Sampling Date		2021/12/16 12:15	2021/12/17 12:15	2021/12/17 12:08	2021/12/17 12:55	2021/12/17 08:30		2021/12/17 08:10		
COC Number		N/A	N/A	N/A	N/A	N/A		N/A		
	UNITS	MW23-A	MW23-B	MW29-A	MW29-B	MW51-A	QC Batch	MW51-B	RDL	QC Batch
<b>Metals</b>										
Dissolved Aluminum (Al)	ug/L	250	190	9.8	32	29	7756096	11	5.0	7756241
Dissolved Antimony (Sb)	ug/L	<1.0	1.7	<1.0	<1.0	<1.0	7756096	<1.0	1.0	7756241
Dissolved Arsenic (As)	ug/L	1.6	20	<1.0	<1.0	<1.0	7756096	<1.0	1.0	7756241
Dissolved Barium (Ba)	ug/L	12	6.5	3.5	3.0	15	7756096	8.0	1.0	7756241
Dissolved Beryllium (Be)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	7756096	<0.10	0.10	7756241
Dissolved Bismuth (Bi)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	7756096	<2.0	2.0	7756241
Dissolved Boron (B)	ug/L	<50	<50	<50	<50	<50	7756096	<50	50	7756241
Dissolved Cadmium (Cd)	ug/L	0.033	0.012	<0.010	0.011	0.025	7756096	0.018	0.010	7756241
Dissolved Calcium (Ca)	ug/L	880	12000	2000	1200	1100	7756096	23000	100	7756241
Dissolved Chromium (Cr)	ug/L	4.1	<1.0	<1.0	<1.0	<1.0	7756096	<1.0	1.0	7756241
Dissolved Cobalt (Co)	ug/L	2.3	0.63	57	1.0	64	7756096	1.7	0.40	7756241
Dissolved Copper (Cu)	ug/L	7.9	15	2.4	1.1	180	7756096	0.77	0.50	7756241
Dissolved Iron (Fe)	ug/L	2400	1500	1300	120	640	7756096	<50	50	7756241
Dissolved Lead (Pb)	ug/L	<0.50	2.6	<0.50	<0.50	<0.50	7756096	<0.50	0.50	7756241
Dissolved Magnesium (Mg)	ug/L	610	1200	560	250	540	7756096	1700	100	7756241
Dissolved Manganese (Mn)	ug/L	250	65	1000	140	330	7756096	240	2.0	7756241
Dissolved Molybdenum (Mo)	ug/L	<2.0	9.3	4.5	<2.0	<2.0	7756096	3.2	2.0	7756241
Dissolved Nickel (Ni)	ug/L	11	4.3	20	8.8	22	7756096	<2.0	2.0	7756241
Dissolved Phosphorus (P)	ug/L	<100	<100	<100	<100	<100	7756096	<100	100	7756241
Dissolved Potassium (K)	ug/L	850	2300	710	1000	900	7756096	1300	100	7756241
Dissolved Selenium (Se)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	7756096	<0.50	0.50	7756241
Dissolved Silver (Ag)	ug/L	<0.10	<0.10	<0.10	<0.10	0.62	7756096	<0.10	0.10	7756241
Dissolved Sodium (Na)	ug/L	4600	9400	4200	21000	3900	7756096	6700	100	7756241
Dissolved Strontium (Sr)	ug/L	8.5	68	5.7	9.8	13	7756096	130	2.0	7756241
Dissolved Thallium (Tl)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	7756096	<0.10	0.10	7756241
Dissolved Tin (Sn)	ug/L	<2.0	6.4	<2.0	<2.0	<2.0	7756096	<2.0	2.0	7756241
Dissolved Titanium (Ti)	ug/L	12	4.9	<2.0	<2.0	<2.0	7756096	<2.0	2.0	7756241
Dissolved Uranium (U)	ug/L	<0.10	0.57	<0.10	0.25	<0.10	7756096	0.86	0.10	7756241
Dissolved Vanadium (V)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	7756096	<2.0	2.0	7756241
Dissolved Zinc (Zn)	ug/L	19	17	14	6.6	56	7756096	<5.0	5.0	7756241
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283  
Report Date: 2022/01/27

Anaconda Mining Inc  
Site Location: GOLDBORO  
Your P.O. #: 0267

### ELEMENTS BY ICP/MS (WATER)

Bureau Veritas ID		RKL832	RKL833	RKL834	RKL835	RKL836	RKL837	RKL838		
Sampling Date		2021/12/17 09:45	2021/12/17 09:30	2021/12/17 10:30	2021/12/17 10:10	2021/12/17 11:15	2021/12/17 11:00	2021/12/17 12:00		
COC Number		N/A	N/A	N/A	N/A	N/A	N/A	N/A		
	UNITS	MW54-A	MW54-B	MW55-A	MW55-B	MW56-A	MW56-B	DUP-B	RDL	QC Batch
<b>Metals</b>										
Dissolved Aluminum (Al)	ug/L	<5.0	21	21	69	32	50	12	5.0	7756241
Dissolved Antimony (Sb)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7756241
Dissolved Arsenic (As)	ug/L	<1.0	1.1	<1.0	1.7	<1.0	3.9	<1.0	1.0	7756241
Dissolved Barium (Ba)	ug/L	13	6.3	18	28	11	7.8	8.0	1.0	7756241
Dissolved Beryllium (Be)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7756241
Dissolved Bismuth (Bi)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	7756241
Dissolved Boron (B)	ug/L	<50	<50	<50	<50	<50	<50	<50	50	7756241
Dissolved Cadmium (Cd)	ug/L	0.060	<0.010	0.038	0.027	0.036	<0.010	0.015	0.010	7756241
Dissolved Calcium (Ca)	ug/L	3200	20000	1900	31000	2700	15000	23000	100	7756241
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7756241
Dissolved Cobalt (Co)	ug/L	6.4	<0.40	13	1.2	7.8	0.52	1.6	0.40	7756241
Dissolved Copper (Cu)	ug/L	6.8	<0.50	14	9.9	4.6	6.7	0.79	0.50	7756241
Dissolved Iron (Fe)	ug/L	130	<50	2000	73	93	140	<50	50	7756241
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7756241
Dissolved Magnesium (Mg)	ug/L	930	2200	680	3200	610	2200	1700	100	7756241
Dissolved Manganese (Mn)	ug/L	550	36	2000	2400	550	350	240	2.0	7756241
Dissolved Molybdenum (Mo)	ug/L	2.3	<2.0	2.9	33	<2.0	2.4	3.1	2.0	7756241
Dissolved Nickel (Ni)	ug/L	22	<2.0	19	3.9	30	2.3	<2.0	2.0	7756241
Dissolved Phosphorus (P)	ug/L	<100	<100	<100	<100	<100	<100	<100	100	7756241
Dissolved Potassium (K)	ug/L	1200	1300	1000	5000	1100	2800	1300	100	7756241
Dissolved Selenium (Se)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7756241
Dissolved Silver (Ag)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7756241
Dissolved Sodium (Na)	ug/L	7000	6700	16000	180000	3700	9300	6700	100	7756241
Dissolved Strontium (Sr)	ug/L	23	130	13	150	17	71	130	2.0	7756241
Dissolved Thallium (Tl)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7756241
Dissolved Tin (Sn)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	7756241
Dissolved Titanium (Ti)	ug/L	<2.0	<2.0	<2.0	4.0	3.1	2.1	<2.0	2.0	7756241
Dissolved Uranium (U)	ug/L	<0.10	0.45	<0.10	8.2	<0.10	0.46	0.89	0.10	7756241
Dissolved Vanadium (V)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	7756241
Dissolved Zinc (Zn)	ug/L	25	<5.0	8.7	<5.0	18	5.1	<5.0	5.0	7756241

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283  
Report Date: 2022/01/27

Anaconda Mining Inc  
Site Location: GOLDBORO  
Your P.O. #: 0267

### ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		RKL797	RKL798			RKL799			RKL820		
Sampling Date		2021/12/15 16:15	2021/12/15 16:30			2021/12/15 16:45			2021/12/15 12:00		
COC Number		N/A	N/A			N/A			N/A		
	UNITS	MW26-B	MW26-A	RDL	QC Batch	MW46-B	RDL	QC Batch	DUP-C	RDL	QC Batch
<b>Metals</b>											
Mercury (Hg)	ug/L	<0.01	<0.01	0.01	7790723				<0.01	0.01	7790723
Dissolved Mercury (Hg)	ug/L	<0.01	<0.01	0.01	7786495	<0.01	0.01	7800707	<0.01	0.01	7786495
RDL = Reportable Detection Limit QC Batch = Quality Control Batch											



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VERITAS

Bureau Veritas Job #: C1Z7283

Report Date: 2022/01/27

Anaconda Mining Inc

Site Location: GOLDBORO

Your P.O. #: 0267

### ATLANTIC RBCA HYDROCARBONS (WATER)

Bureau Veritas ID		RKL797			RKL798		RKL799		
Sampling Date		2021/12/15 16:15			2021/12/15 16:30		2021/12/15 16:45		
COC Number		N/A			N/A		N/A		
	UNITS	MW26-B	RDL	QC Batch	MW26-A	QC Batch	MW46-B	RDL	QC Batch
<b>Petroleum Hydrocarbons</b>									
Benzene	mg/L	<0.0010	0.0010	7740965	<0.0010	7745378	<0.0010	0.0010	7744453
Toluene	mg/L	0.0019	0.0010	7740965	<0.0010	7745378	<0.0010	0.0010	7744453
Ethylbenzene	mg/L	<0.0010	0.0010	7740965	<0.0010	7745378	<0.0010	0.0010	7744453
Total Xylenes	mg/L	<0.0020	0.0020	7740965	<0.0020	7745378	<0.0020	0.0020	7744453
C6 - C10 (less BTEX)	mg/L	<0.090	0.090	7740965	<0.090	7745378	<0.090	0.090	7744453
>C10-C16 Hydrocarbons	mg/L	<0.061	0.061	7745965	<0.050	7744522	<0.050	0.050	7745917
>C16-C21 Hydrocarbons	mg/L	<0.061	0.061	7745965	<0.050	7744522	<0.050	0.050	7745917
>C21-<C32 Hydrocarbons	mg/L	<0.11	0.11	7745965	<0.090	7744522	<0.090	0.090	7745917
Modified TPH (Tier1)	mg/L	<0.11	0.11	7741132	<0.090	7738332	<0.090	0.090	7738332
Reached Baseline at C32	mg/L	NA	N/A	7745965	NA	7744522	NA	N/A	7745917
Hydrocarbon Resemblance	mg/L	NA	N/A	7745965	NA	7744522	NA	N/A	7745917
<b>Surrogate Recovery (%)</b>									
Isobutylbenzene - Extractable	%	100		7745965	91	7744522	92		7745917
n-Dotriacontane - Extractable	%	96 (1)		7745965	98	7744522	93		7745917
Isobutylbenzene - Volatile	%	110 (2)		7740965	108	7745378	94		7744453

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

N/A = Not Applicable

(1) Elevated TEH RDL(s) due to limited sample.

(2) VPH analysis was performed on an aliquot obtained from a preserved alternate sample bottle.



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Bureau Veritas Job #: C1Z7283

Report Date: 2022/01/27

Anaconda Mining Inc

Site Location: GOLDBORO

Your P.O. #: 0267

### ATLANTIC RBCA HYDROCARBONS (WATER)

Bureau Veritas ID		RKL800	RKL801		RKL802		RKL803		
Sampling Date		2021/12/16 10:10	2021/12/16 09:50		2021/12/16 11:30		2021/12/16 11:10		
COC Number		N/A	N/A		N/A		N/A		
	UNITS	MW5-A	MW5-B	QC Batch	MW6-A	QC Batch	MW6-B	RDL	QC Batch
<b>Petroleum Hydrocarbons</b>									
Benzene	mg/L	<0.0010	<0.0010	7744452	<0.0010	7744452	<0.0010	0.0010	7744452
Toluene	mg/L	<0.0010	<0.0010	7744452	<0.0010	7744452	<0.0010	0.0010	7744452
Ethylbenzene	mg/L	<0.0010	<0.0010	7744452	<0.0010	7744452	<0.0010	0.0010	7744452
Total Xylenes	mg/L	<0.0020	<0.0020	7744452	<0.0020	7744452	<0.0020	0.0020	7744452
C6 - C10 (less BTEX)	mg/L	<0.090	<0.090	7744452	<0.090	7744452	<0.090	0.090	7744452
>C10-C16 Hydrocarbons	mg/L	<0.050	<0.050	7744529	<0.050	7744522	<0.050	0.050	7747884
>C16-C21 Hydrocarbons	mg/L	<0.050	<0.050	7744529	<0.050	7744522	<0.050	0.050	7747884
>C21-<C32 Hydrocarbons	mg/L	<0.090	<0.090	7744529	<0.090	7744522	<0.090	0.090	7747884
Modified TPH (Tier1)	mg/L	<0.090	<0.090	7738332	<0.090	7738332	<0.090	0.090	7738332
Reached Baseline at C32	mg/L	NA	NA	7744529	NA	7744522	NA	N/A	7747884
Hydrocarbon Resemblance	mg/L	NA	NA	7744529	NA	7744522	NA	N/A	7747884
<b>Surrogate Recovery (%)</b>									
Isobutylbenzene - Extractable	%	91	91	7744529	98	7744522	100		7747884
n-Dotriacontane - Extractable	%	89	97	7744529	102	7744522	98		7747884
Isobutylbenzene - Volatile	%	96	103	7744452	100	7744452	96		7744452
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable									



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283  
Report Date: 2022/01/27

Anaconda Mining Inc  
Site Location: GOLDBORO  
Your P.O. #: 0267

**ATLANTIC RBCA HYDROCARBONS (WATER)**

Bureau Veritas ID		RKL804		RKL805		RKL806	RKL807		
Sampling Date		2021/12/16 12:10		2021/12/16 12:30		2021/12/16 10:50	2021/12/16 10:30		
COC Number		N/A		N/A		N/A	N/A		
	UNITS	MW30-A	QC Batch	MW30-B	QC Batch	MW42-A	MW42-B	RDL	QC Batch
<b>Petroleum Hydrocarbons</b>									
Benzene	mg/L	<0.0010	7744452	<0.0010	7744452	<0.0010	<0.0010	0.0010	7744452
Toluene	mg/L	<0.0010	7744452	<0.0010	7744452	<0.0010	<0.0010	0.0010	7744452
Ethylbenzene	mg/L	<0.0010	7744452	<0.0010	7744452	<0.0010	<0.0010	0.0010	7744452
Total Xylenes	mg/L	<0.0020	7744452	<0.0020	7744452	<0.0020	<0.0020	0.0020	7744452
C6 - C10 (less BTEX)	mg/L	<0.090	7744452	<0.090	7744452	<0.090	<0.090	0.090	7744452
>C10-C16 Hydrocarbons	mg/L	<0.050	7750695	<0.050	7744522	<0.050	<0.050	0.050	7745917
>C16-C21 Hydrocarbons	mg/L	<0.050	7750695	<0.050	7744522	<0.050	<0.050	0.050	7745917
>C21-<C32 Hydrocarbons	mg/L	<0.090	7750695	<0.090	7744522	<0.090	<0.090	0.090	7745917
Modified TPH (Tier1)	mg/L	<0.090	7738332	<0.090	7738332	<0.090	<0.090	0.090	7738332
Reached Baseline at C32	mg/L	NA	7750695	NA	7744522	NA	NA	N/A	7745917
Hydrocarbon Resemblance	mg/L	NA	7750695	NA	7744522	NA	NA	N/A	7745917
<b>Surrogate Recovery (%)</b>									
Isobutylbenzene - Extractable	%	91	7750695	94	7744522	94	87		7745917
n-Dotriacontane - Extractable	%	109	7750695	99	7744522	98	86		7745917
Isobutylbenzene - Volatile	%	99	7744452	99	7744452	100	99		7744452
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable									



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283  
Report Date: 2022/01/27

Anaconda Mining Inc  
Site Location: GOLDBORO  
Your P.O. #: 0267

### ATLANTIC RBCA HYDROCARBONS (WATER)

Bureau Veritas ID		RKL808	RKL809		RKL810	RKL811		RKL812		
Sampling Date		2021/12/16 09:25	2021/12/16 09:10		2021/12/16 13:30	2021/12/16 14:20		2021/12/16 14:00		
COC Number		N/A	N/A		N/A	N/A		N/A		
	UNITS	MW43-A	MW43-B	QC Batch	MW46-A	MW7-A	QC Batch	MW7-B	RDL	QC Batch
<b>Petroleum Hydrocarbons</b>										
Benzene	mg/L	<0.0010	<0.0010	7744452	<0.0010	<0.0010	7744452	<0.0010	0.0010	7744452
Toluene	mg/L	0.0040	<0.0010	7744452	<0.0010	<0.0010	7744452	<0.0010	0.0010	7744452
Ethylbenzene	mg/L	<0.0010	<0.0010	7744452	<0.0010	<0.0010	7744452	<0.0010	0.0010	7744452
Total Xylenes	mg/L	<0.0020	<0.0020	7744452	<0.0020	<0.0020	7744452	<0.0020	0.0020	7744452
C6 - C10 (less BTEX)	mg/L	<0.090	<0.090	7744452	<0.090	<0.090	7744452	<0.090	0.090	7744452
>C10-C16 Hydrocarbons	mg/L	<0.050	<0.050	7744529	<0.050	<0.050	7744522	<0.050	0.050	7744529
>C16-C21 Hydrocarbons	mg/L	<0.050	<0.050	7744529	<0.050	<0.050	7744522	<0.050	0.050	7744529
>C21-<C32 Hydrocarbons	mg/L	<0.090	<0.090	7744529	<0.090	<0.090	7744522	<0.090	0.090	7744529
Modified TPH (Tier1)	mg/L	<0.090	<0.090	7738332	<0.090	<0.090	7738332	<0.090	0.090	7738332
Reached Baseline at C32	mg/L	NA	NA	7744529	NA	NA	7744522	NA	N/A	7744529
Hydrocarbon Resemblance	mg/L	NA	NA	7744529	NA	NA	7744522	NA	N/A	7744529
<b>Surrogate Recovery (%)</b>										
Isobutylbenzene - Extractable	%	95	99	7744529	87	100	7744522	101		7744529
n-Dotriacontane - Extractable	%	97	87	7744529	91	99	7744522	102		7744529
Isobutylbenzene - Volatile	%	98	101	7744452	99	98	7744452	98		7744452
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable										



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Anaconda Mining Inc  
Site Location: GOLDBORO  
Your P.O. #: 0267

### ATLANTIC RBCA HYDROCARBONS (WATER)

Bureau Veritas ID		RKL813		RKL814		RKL815		RKL816		
Sampling Date		2021/12/16 14:55		2021/12/16 14:35		2021/12/16 15:00		2021/12/16 15:10		
COC Number		N/A		N/A		N/A		N/A		
	UNITS	MW15-A	QC Batch	MW15-B	QC Batch	MW20-A	QC Batch	MW20-B	RDL	QC Batch

Petroleum Hydrocarbons										
Benzene	mg/L	<0.0010	7744452	<0.0010	7744452	<0.0010	7744452	<0.0010	0.0010	7744452
Toluene	mg/L	0.0010	7744452	<0.0010	7744452	<0.0010	7744452	<0.0010	0.0010	7744452
Ethylbenzene	mg/L	<0.0010	7744452	<0.0010	7744452	<0.0010	7744452	<0.0010	0.0010	7744452
Total Xylenes	mg/L	<0.0020	7744452	<0.0020	7744452	<0.0020	7744452	<0.0020	0.0020	7744452
C6 - C10 (less BTEX)	mg/L	<0.090	7744452	<0.090	7744452	<0.090	7744452	<0.090	0.090	7744452
>C10-C16 Hydrocarbons	mg/L	0.44	7745965	<0.050	7744522	<0.050	7745917	<0.050	0.050	7744522
>C16-C21 Hydrocarbons	mg/L	0.32	7745965	<0.050	7744522	<0.050	7745917	<0.050	0.050	7744522
>C21-<C32 Hydrocarbons	mg/L	0.16	7745965	<0.090	7744522	<0.090	7745917	<0.090	0.090	7744522
Modified TPH (Tier1)	mg/L	0.91	7738332	<0.090	7738332	<0.090	7738332	<0.090	0.090	7738332
Reached Baseline at C32	mg/L	Yes	7745965	NA	7744522	NA	7745917	NA	N/A	7744522
Hydrocarbon Resemblance	mg/L	COMMENT (1)	7745965	NA	7744522	NA	7745917	NA	N/A	7744522
Surrogate Recovery (%)										
Isobutylbenzene - Extractable	%	97	7745965	94	7744522	96	7745917	101		7744522
n-Dotriacontane - Extractable	%	93	7745965	94	7744522	88	7745917	106		7744522
Isobutylbenzene - Volatile	%	98	7744452	100	7744452	101	7744452	97		7744452

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

N/A = Not Applicable

(1) One product in fuel oil range. Possible lube oil fraction.





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### ATLANTIC RBCA HYDROCARBONS (WATER)

Bureau Veritas ID		RKL817	RKL818		RKL819		RKL820		
Sampling Date		2021/12/16 16:05	2021/12/16 15:50		2021/12/16 12:00		2021/12/15 12:00		
COC Number		N/A	N/A		N/A		N/A		
	UNITS	MW21-A	MW21-B	QC Batch	DUP-D	QC Batch	DUP-C	RDL	QC Batch
<b>Petroleum Hydrocarbons</b>									
Benzene	mg/L	<0.0010	<0.0010	7744452	<0.0010	7744452	<0.0010	0.0010	7747934
Toluene	mg/L	<0.0010	<0.0010	7744452	<0.0010	7744452	0.0018	0.0010	7747934
Ethylbenzene	mg/L	<0.0010	<0.0010	7744452	<0.0010	7744452	<0.0010	0.0010	7747934
Total Xylenes	mg/L	<0.0020	<0.0020	7744452	<0.0020	7744452	<0.0020	0.0020	7747934
C6 - C10 (less BTEX)	mg/L	<0.090	<0.090	7744452	<0.090	7744452	<0.090	0.090	7747934
>C10-C16 Hydrocarbons	mg/L	<0.050	<0.050	7744529	<0.050	7745917	<0.050	0.050	7745917
>C16-C21 Hydrocarbons	mg/L	<0.050	<0.050	7744529	<0.050	7745917	<0.050	0.050	7745917
>C21-<C32 Hydrocarbons	mg/L	<0.090	<0.090	7744529	<0.090	7745917	<0.090	0.090	7745917
Modified TPH (Tier1)	mg/L	<0.090	<0.090	7738332	<0.090	7738332	<0.090	0.090	7738332
Reached Baseline at C32	mg/L	NA	NA	7744529	NA	7745917	NA	N/A	7745917
Hydrocarbon Resemblance	mg/L	NA	NA	7744529	NA	7745917	NA	N/A	7745917
<b>Surrogate Recovery (%)</b>									
Isobutylbenzene - Extractable	%	101	96	7744529	92	7745917	91		7745917
n-Dotriacontane - Extractable	%	100	97	7744529	79	7745917	91		7745917
Isobutylbenzene - Volatile	%	98	97	7744452	100	7744452	109		7747934
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable									



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### ATLANTIC RBCA HYDROCARBONS (WATER)

Bureau Veritas ID		RKL821		RKL822		RKL823		RKL824		
Sampling Date		2021/12/16 12:05		2021/12/17 09:05		2021/12/17 08:50		2021/12/16 13:25		
COC Number		N/A		N/A		N/A		N/A		
	UNITS	DUP-A	QC Batch	MW1-A	QC Batch	MW1-B	QC Batch	MW16-A	RDL	QC Batch
<b>Petroleum Hydrocarbons</b>										
Benzene	mg/L	<0.0010	7747934	<0.0010	7747934	<0.0010	7747934	<0.0010	0.0010	7747934
Toluene	mg/L	0.0036	7747934	<0.0010	7747934	<0.0010	7747934	<0.0010	0.0010	7747934
Ethylbenzene	mg/L	<0.0010	7747934	<0.0010	7747934	<0.0010	7747934	<0.0010	0.0010	7747934
Total Xylenes	mg/L	<0.0020	7747934	<0.0020	7747934	<0.0020	7747934	<0.0020	0.0020	7747934
C6 - C10 (less BTEX)	mg/L	<0.090	7747934	<0.090	7747934	<0.090	7747934	<0.090	0.090	7747934
>C10-C16 Hydrocarbons	mg/L	<0.050	7744522	<0.050	7744529	<0.050	7744522	<0.050	0.050	7745917
>C16-C21 Hydrocarbons	mg/L	<0.050	7744522	<0.050	7744529	<0.050	7744522	<0.050	0.050	7745917
>C21-<C32 Hydrocarbons	mg/L	<0.090	7744522	<0.090	7744529	<0.090	7744522	<0.090	0.090	7745917
Modified TPH (Tier1)	mg/L	<0.090	7738332	<0.090	7738332	<0.090	7738332	<0.090	0.090	7738332
Reached Baseline at C32	mg/L	NA	7744522	NA	7744529	NA	7744522	NA	N/A	7745917
Hydrocarbon Resemblance	mg/L	NA	7744522	NA	7744529	NA	7744522	NA	N/A	7745917
<b>Surrogate Recovery (%)</b>										
Isobutylbenzene - Extractable	%	87	7744522	99	7744529	93	7744522	95		7745917
n-Dotriacontane - Extractable	%	85	7744522	92	7744529	94	7744522	99		7745917
Isobutylbenzene - Volatile	%	106	7747934	105	7747934	107	7747934	107		7747934
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable										



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### ATLANTIC RBCA HYDROCARBONS (WATER)

Bureau Veritas ID		RKL825		RKL826		RKL827		RKL828		
Sampling Date		2021/12/16 13:15		2021/12/16 12:15		2021/12/17 12:15		2021/12/17 12:08		
COC Number		N/A		N/A		N/A		N/A		
	UNITS	MW16-B	QC Batch	MW23-A	QC Batch	MW23-B	QC Batch	MW29-A	RDL	QC Batch
<b>Petroleum Hydrocarbons</b>										
Benzene	mg/L	<0.0010	7747934	<0.0010	7747934	<0.0010	7747934	<0.0010	0.0010	7747934
Toluene	mg/L	<0.0010	7747934	<0.0010	7747934	<0.0010	7747934	<0.0010	0.0010	7747934
Ethylbenzene	mg/L	<0.0010	7747934	<0.0010	7747934	<0.0010	7747934	<0.0010	0.0010	7747934
Total Xylenes	mg/L	<0.0020	7747934	<0.0020	7747934	<0.0020	7747934	<0.0020	0.0020	7747934
C6 - C10 (less BTEX)	mg/L	<0.090	7747934	<0.090	7747934	<0.090	7747934	<0.090	0.090	7747934
>C10-C16 Hydrocarbons	mg/L	<0.050	7744529	<0.050	7744522	<0.050	7744529	<0.050	0.050	7745917
>C16-C21 Hydrocarbons	mg/L	<0.050	7744529	<0.050	7744522	<0.050	7744529	<0.050	0.050	7745917
>C21-<C32 Hydrocarbons	mg/L	<0.090	7744529	<0.090	7744522	<0.090	7744529	<0.090	0.090	7745917
Modified TPH (Tier1)	mg/L	<0.090	7738604	<0.090	7738604	<0.090	7738604	<0.090	0.090	7738604
Reached Baseline at C32	mg/L	NA	7744529	NA	7744522	NA	7744529	NA	N/A	7745917
Hydrocarbon Resemblance	mg/L	NA	7744529	NA	7744522	NA	7744529	NA	N/A	7745917
<b>Surrogate Recovery (%)</b>										
Isobutylbenzene - Extractable	%	101	7744529	97	7744522	105	7744529	107		7745917
n-Dotriacontane - Extractable	%	100	7744529	99	7744522	98	7744529	107		7745917
Isobutylbenzene - Volatile	%	107	7747934	109	7747934	106	7747934	107		7747934
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable										



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### ATLANTIC RBCA HYDROCARBONS (WATER)

Bureau Veritas ID		RKL829		RKL830	RKL831	RKL832	RKL833		
Sampling Date		2021/12/17 12:55		2021/12/17 08:30	2021/12/17 08:10	2021/12/17 09:45	2021/12/17 09:30		
COC Number		N/A		N/A	N/A	N/A	N/A		
	UNITS	MW29-B	QC Batch	MW51-A	MW51-B	MW54-A	MW54-B	RDL	QC Batch
<b>Petroleum Hydrocarbons</b>									
Benzene	mg/L	<0.0010	7747934	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7747934
Toluene	mg/L	<0.0010	7747934	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7747934
Ethylbenzene	mg/L	<0.0010	7747934	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7747934
Total Xylenes	mg/L	<0.0020	7747934	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	7747934
C6 - C10 (less BTEX)	mg/L	<0.090	7747934	<0.090	<0.090	<0.090	<0.090	0.090	7747934
>C10-C16 Hydrocarbons	mg/L	<0.050	7744529	<0.050	<0.050	<0.050	<0.050	0.050	7744522
>C16-C21 Hydrocarbons	mg/L	<0.050	7744529	<0.050	<0.050	<0.050	<0.050	0.050	7744522
>C21-<C32 Hydrocarbons	mg/L	<0.090	7744529	<0.090	<0.090	<0.090	<0.090	0.090	7744522
Modified TPH (Tier1)	mg/L	<0.090	7738604	<0.090	<0.090	<0.090	<0.090	0.090	7738604
Reached Baseline at C32	mg/L	NA	7744529	NA	NA	NA	NA	N/A	7744522
Hydrocarbon Resemblance	mg/L	NA	7744529	NA	NA	NA	NA	N/A	7744522
<b>Surrogate Recovery (%)</b>									
Isobutylbenzene - Extractable	%	96	7744529	98	100	93	95		7744522
n-Dotriacontane - Extractable	%	98	7744529	100	105	97	97		7744522
Isobutylbenzene - Volatile	%	107	7747934	105	103	108	106		7747934
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable									



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### ATLANTIC RBCA HYDROCARBONS (WATER)

Bureau Veritas ID		RKL834		RKL835		RKL836		RKL837		
Sampling Date		2021/12/17 10:30		2021/12/17 10:10		2021/12/17 11:15		2021/12/17 11:00		
COC Number		N/A		N/A		N/A		N/A		
	UNITS	MW55-A	QC Batch	MW55-B	QC Batch	MW56-A	QC Batch	MW56-B	RDL	QC Batch
<b>Petroleum Hydrocarbons</b>										
Benzene	mg/L	<0.0010	7747934	<0.0010	7747934	<0.0010	7747934	<0.0010	0.0010	7747934
Toluene	mg/L	<0.0010	7747934	0.0058	7747934	<0.0010	7747934	<0.0010	0.0010	7747934
Ethylbenzene	mg/L	<0.0010	7747934	<0.0010	7747934	<0.0010	7747934	<0.0010	0.0010	7747934
Total Xylenes	mg/L	<0.0020	7747934	<0.0020	7747934	<0.0020	7747934	<0.0020	0.0020	7747934
C6 - C10 (less BTEX)	mg/L	<0.090	7747934	<0.090	7747934	<0.090	7747934	<0.090	0.090	7747934
>C10-C16 Hydrocarbons	mg/L	0.089	7744529	<0.050	7744522	<0.050	7747884	<0.050	0.050	7745917
>C16-C21 Hydrocarbons	mg/L	<0.050	7744529	<0.050	7744522	<0.050	7747884	<0.050	0.050	7745917
>C21-<C32 Hydrocarbons	mg/L	<0.090	7744529	<0.090	7744522	<0.090	7747884	<0.090	0.090	7745917
Modified TPH (Tier1)	mg/L	<0.090	7738604	<0.090	7738604	<0.090	7738604	<0.090	0.090	7738604
Reached Baseline at C32	mg/L	NA	7744529	NA	7744522	NA	7747884	NA	N/A	7745917
Hydrocarbon Resemblance	mg/L	NA	7744529	NA	7744522	NA	7747884	NA	N/A	7745917
<b>Surrogate Recovery (%)</b>										
Isobutylbenzene - Extractable	%	98	7744529	88	7744522	106	7747884	100		7745917
n-Dotriacontane - Extractable	%	94	7744529	89	7744522	109	7747884	97		7745917
Isobutylbenzene - Volatile	%	106	7747934	105	7747934	106	7747934	106		7747934
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable										



**ATLANTIC RBCA HYDROCARBONS (WATER)**

<b>Bureau Veritas ID</b>		RKL838		
<b>Sampling Date</b>		2021/12/17 12:00		
<b>COC Number</b>		N/A		
	<b>UNITS</b>	<b>DUP-B</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Petroleum Hydrocarbons</b>				
Benzene	mg/L	<0.0010	0.0010	7747934
Toluene	mg/L	<0.0010	0.0010	7747934
Ethylbenzene	mg/L	<0.0010	0.0010	7747934
Total Xylenes	mg/L	<0.0020	0.0020	7747934
C6 - C10 (less BTEX)	mg/L	<0.090	0.090	7747934
>C10-C16 Hydrocarbons	mg/L	<0.050	0.050	7744529
>C16-C21 Hydrocarbons	mg/L	<0.050	0.050	7744529
>C21-<C32 Hydrocarbons	mg/L	<0.090	0.090	7744529
Modified TPH (Tier1)	mg/L	<0.090	0.090	7738604
Reached Baseline at C32	mg/L	NA	N/A	7744529
Hydrocarbon Resemblance	mg/L	NA	N/A	7744529
<b>Surrogate Recovery (%)</b>				
Isobutylbenzene - Extractable	%	100		7744529
n-Dotriacontane - Extractable	%	91		7744529
Isobutylbenzene - Volatile	%	106		7747934
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable				



### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	18.0°C
Package 2	4.0°C
Package 3	2.7°C
Package 4	2.0°C
Package 5	8.0°C
Package 6	2.0°C
Package 7	5.3°C
Package 8	6.0°C
Package 9	5.3°C
Package 10	2.3°C

Sample RKL797 [MW26-B] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. ortho-Phosphate > Phosphorus: Both values fall within the method uncertainty for duplicates and are likely equivalent.  
Mercury analyzed past recommended hold time.

Sample RKL798 [MW26-A] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L.  
Mercury analyzed past recommended hold time.

Sample RKL799 [MW46-B] : ortho-Phosphate > Phosphorus: Both values fall within the method uncertainty for duplicates and are likely equivalent. ortho-Phosphate > Total Phosphorus: Both values fall within the method uncertainty for duplicates and are likely equivalent.  
Mercury analyzed past recommended hold time.

Poor RCap Ion Balance due to sample matrix. Possibly due to fine particulate matter. Anion sum does not include contribution from Total Organic Carbon.

Sample RKL800 [MW5-A] : Poor RCap Ion Balance due to sample matrix. Possibly due to fine particulate matter.

Sample RKL802 [MW6-A] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L.

Sample RKL803 [MW6-B] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. ortho-Phosphate > Phosphorus: Both values fall within the method uncertainty for duplicates and are likely equivalent. ortho-Phosphate > Total Phosphorus: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample RKL804 [MW30-A] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample RKL805 [MW30-B] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. Total Phosphorus < Dissolved Phosphorus: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample RKL806 [MW42-A] : Poor RCap Ion Balance due to sample matrix. Possibly due to fine particulate matter.

Sample RKL807 [MW42-B] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample RKL808 [MW43-A] : RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L.

Sample RKL809 [MW43-B] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample RKL811 [MW7-A] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L.



Sample RKL812 [MW7-B] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample RKL813 [MW15-A] : Poor RCap Ion Balance due to sample matrix. Possibly due to fine particulate matter. Anion sum does not include contribution from Total Organic Carbon.

Sample RKL814 [MW15-B] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample RKL815 [MW20-A] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. Poor RCap Ion Balance due to sample matrix. Possibly due to fine particulate matter.

Sample RKL816 [MW20-B] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. DOC > TOC There is no significant difference between the values.

Sample RKL819 [DUP-D] : RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L.

Sample RKL820 [DUP-C] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. ortho-Phosphate > Phosphorus: Both values fall within the method uncertainty for duplicates and are likely equivalent. ortho-Phosphate > Total Phosphorus: Both values fall within the method uncertainty for duplicates and are likely equivalent. Mercury analyzed past recommended hold time.

Sample RKL822 [MW1-A] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L.

Sample RKL823 [MW1-B] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L.

Sample RKL824 [MW16-A] : ortho-Phosphate > Phosphorus: Both values fall within the method uncertainty for duplicates and are likely equivalent. ortho-Phosphate > Total Phosphorus: Both values fall within the method uncertainty for duplicates and are likely equivalent. Poor RCap Ion Balance due to sample matrix.

Sample RKL825 [MW16-B] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample RKL826 [MW23-A] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample RKL827 [MW23-B] : RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L.

Sample RKL830 [MW51-A] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L.

Sample RKL831 [MW51-B] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. Poor RCap Ion Balance due to sample matrix.

Sample RKL832 [MW54-A] : RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L.

Sample RKL833 [MW54-B] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L.

Sample RKL834 [MW55-A] : RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L.

Sample RKL835 [MW55-B] : ortho-Phosphate > Phosphorus: Both values fall within the method uncertainty for duplicates and are likely equivalent. ortho-Phosphate > Total Phosphorus: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample RKL836 [MW56-A] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample RKL838 [DUP-B] : COD < TOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L.





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Anaconda Mining Inc

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Your P.O. #: 0267

**Results relate only to the items tested.**



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### QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7740965	THL	Matrix Spike	Isobutylbenzene - Volatile	2021/12/20		113	%	70 - 130
			Benzene	2021/12/20		105	%	70 - 130
			Toluene	2021/12/20		105	%	70 - 130
			Ethylbenzene	2021/12/20		106	%	70 - 130
			Total Xylenes	2021/12/20		105	%	70 - 130
7740965	THL	Spiked Blank	Isobutylbenzene - Volatile	2021/12/20		108	%	70 - 130
			Benzene	2021/12/20		101	%	70 - 130
			Toluene	2021/12/20		102	%	70 - 130
			Ethylbenzene	2021/12/20		104	%	70 - 130
7740965	THL	Method Blank	Isobutylbenzene - Volatile	2021/12/20		106	%	70 - 130
			Benzene	2021/12/20	<0.0010		mg/L	
			Toluene	2021/12/20	<0.0010		mg/L	
			Ethylbenzene	2021/12/20	<0.0010		mg/L	
			Total Xylenes	2021/12/20	<0.0020		mg/L	
7740965	THL	RPD	C6 - C10 (less BTEX)	2021/12/20	<0.090		mg/L	
			Benzene	2021/12/20	NC	%	40	
			Toluene	2021/12/20	NC	%	40	
			Ethylbenzene	2021/12/20	NC	%	40	
			Total Xylenes	2021/12/20	NC	%	40	
7741053	NGI	Matrix Spike	Dissolved Organic Carbon (C)	2021/12/21		93	%	85 - 115
			Dissolved Organic Carbon (C)	2021/12/21		98	%	80 - 120
			Dissolved Organic Carbon (C)	2021/12/21	<0.5		mg/L	
			Dissolved Organic Carbon (C)	2021/12/21	3.9		%	15
			Dissolved Organic Carbon (C)	2021/12/21			%	15
7744452	THL	Matrix Spike [RKL801-15]	Isobutylbenzene - Volatile	2021/12/22		100	%	70 - 130
			Benzene	2021/12/22		100	%	70 - 130
			Toluene	2021/12/22		99	%	70 - 130
			Ethylbenzene	2021/12/22		102	%	70 - 130
			Total Xylenes	2021/12/22		100	%	70 - 130
7744452	THL	Spiked Blank	Isobutylbenzene - Volatile	2021/12/22		96	%	70 - 130
			Benzene	2021/12/22		105	%	70 - 130
			Toluene	2021/12/22		103	%	70 - 130
			Ethylbenzene	2021/12/22		105	%	70 - 130
			Total Xylenes	2021/12/22		102	%	70 - 130
7744452	THL	Method Blank	Isobutylbenzene - Volatile	2021/12/22		97	%	70 - 130
			Benzene	2021/12/22	<0.0010		mg/L	
			Toluene	2021/12/22	<0.0010		mg/L	
			Ethylbenzene	2021/12/22	<0.0010		mg/L	
			Total Xylenes	2021/12/22	<0.0020		mg/L	
7744452	THL	RPD [RKL800-15]	C6 - C10 (less BTEX)	2021/12/22	<0.090		mg/L	
			Benzene	2021/12/22	NC	%	40	
			Toluene	2021/12/22	NC	%	40	
			Ethylbenzene	2021/12/22	NC	%	40	
			Total Xylenes	2021/12/22	NC	%	40	
7744453	THL	Matrix Spike	Isobutylbenzene - Volatile	2021/12/22		104	%	70 - 130
			Benzene	2021/12/22		100	%	70 - 130
			Toluene	2021/12/22		100	%	70 - 130
			Ethylbenzene	2021/12/22		105	%	70 - 130
			Total Xylenes	2021/12/22		102	%	70 - 130
7744453	THL	Spiked Blank	Isobutylbenzene - Volatile	2021/12/22		100	%	70 - 130
			Benzene	2021/12/22		101	%	70 - 130
			Toluene	2021/12/22		100	%	70 - 130



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### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7744453	THL	Method Blank	Ethylbenzene	2021/12/22		104	%	70 - 130
			Total Xylenes	2021/12/22		102	%	70 - 130
			Isobutylbenzene - Volatile	2021/12/22		101	%	70 - 130
			Benzene	2021/12/22	<0.0010		mg/L	
			Toluene	2021/12/22	<0.0010		mg/L	
			Ethylbenzene	2021/12/22	<0.0010		mg/L	
			Total Xylenes	2021/12/22	<0.0020		mg/L	
7744453	THL	RPD	C6 - C10 (less BTEX)	2021/12/22	<0.090		mg/L	
			Benzene	2021/12/22	0		%	40
			Toluene	2021/12/22	0		%	40
			Ethylbenzene	2021/12/22	NC		%	40
			Total Xylenes	2021/12/22	0		%	40
7744513	NGI	Matrix Spike [RKL825-07]	C6 - C10 (less BTEX)	2021/12/22	NC		%	40
			Dissolved Organic Carbon (C)	2021/12/22		96	%	85 - 115
			Dissolved Organic Carbon (C)	2021/12/22		98	%	80 - 120
			Dissolved Organic Carbon (C)	2021/12/22	<0.5		mg/L	
			Dissolved Organic Carbon (C)	2021/12/22	3.4		%	15
7744522	MGN	Matrix Spike	Isobutylbenzene - Extractable	2021/12/21		101	%	70 - 130
			n-Dotriacontane - Extractable	2021/12/21		115	%	70 - 130
			>C10-C16 Hydrocarbons	2021/12/21		104	%	70 - 130
			>C16-C21 Hydrocarbons	2021/12/21		105	%	70 - 130
			>C21-<C32 Hydrocarbons	2021/12/21		112	%	70 - 130
			Isobutylbenzene - Extractable	2021/12/21		73	%	70 - 130
			n-Dotriacontane - Extractable	2021/12/21		112	%	70 - 130
7744522	MGN	Spiked Blank	>C10-C16 Hydrocarbons	2021/12/21		103	%	70 - 130
			>C16-C21 Hydrocarbons	2021/12/21		93	%	70 - 130
			>C21-<C32 Hydrocarbons	2021/12/21		102	%	70 - 130
			Isobutylbenzene - Extractable	2021/12/21		69 (1)	%	70 - 130
			n-Dotriacontane - Extractable	2021/12/21		106	%	70 - 130
			>C10-C16 Hydrocarbons	2021/12/21	<0.050		mg/L	
			>C16-C21 Hydrocarbons	2021/12/21	<0.050		mg/L	
7744522	MGN	RPD	>C21-<C32 Hydrocarbons	2021/12/21	<0.090		mg/L	
			>C10-C16 Hydrocarbons	2021/12/21	NC		%	40
			>C16-C21 Hydrocarbons	2021/12/21	NC		%	40
			>C21-<C32 Hydrocarbons	2021/12/21	NC		%	40
7744523	NGI	Matrix Spike [RKL816-07]	Dissolved Organic Carbon (C)	2021/12/21		96	%	85 - 115
			Dissolved Organic Carbon (C)	2021/12/21		100	%	80 - 120
			Dissolved Organic Carbon (C)	2021/12/21	<0.5		mg/L	
			Dissolved Organic Carbon (C)	2021/12/21	4.4		%	15
			Dissolved Organic Carbon (C)	2021/12/22		98	%	85 - 115
			Dissolved Organic Carbon (C)	2021/12/22		100	%	80 - 120
			Dissolved Organic Carbon (C)	2021/12/22	<0.5		mg/L	
7744525	NGI	RPD [RKL816-07]	Dissolved Organic Carbon (C)	2021/12/22		98	%	85 - 115
			Dissolved Organic Carbon (C)	2021/12/22		100	%	80 - 120
			Dissolved Organic Carbon (C)	2021/12/22	<0.5		mg/L	
			Dissolved Organic Carbon (C)	2021/12/22	10		%	15
			Dissolved Organic Carbon (C)	2021/12/22		98	%	85 - 115
			Dissolved Organic Carbon (C)	2021/12/22		100	%	80 - 120
			Dissolved Organic Carbon (C)	2021/12/22	<0.5		mg/L	
7744529	MSK	Matrix Spike	Isobutylbenzene - Extractable	2021/12/21		102	%	70 - 130
			n-Dotriacontane - Extractable	2021/12/21		93	%	70 - 130
			>C10-C16 Hydrocarbons	2021/12/21		94	%	70 - 130
			>C16-C21 Hydrocarbons	2021/12/21		88	%	70 - 130
			>C21-<C32 Hydrocarbons	2021/12/21		84	%	70 - 130
			Isobutylbenzene - Extractable	2021/12/21		102	%	70 - 130
			n-Dotriacontane - Extractable	2021/12/21		96	%	70 - 130
7744529	MSK	Spiked Blank	>C10-C16 Hydrocarbons	2021/12/21		98	%	70 - 130
			>C16-C21 Hydrocarbons	2021/12/21		94	%	70 - 130
			>C21-<C32 Hydrocarbons	2021/12/21		92	%	70 - 130
			Isobutylbenzene - Extractable	2021/12/21		94	%	70 - 130
			Method Blank	2021/12/21		94	%	70 - 130



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### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			n-Dotriacontane - Extractable	2021/12/21		95	%	70 - 130
			>C10-C16 Hydrocarbons	2021/12/21	<0.050		mg/L	
			>C16-C21 Hydrocarbons	2021/12/21	<0.050		mg/L	
			>C21-<C32 Hydrocarbons	2021/12/21	<0.090		mg/L	
7744529	MSK	RPD	>C10-C16 Hydrocarbons	2021/12/21	NC		%	40
			>C16-C21 Hydrocarbons	2021/12/21	NC		%	40
			>C21-<C32 Hydrocarbons	2021/12/21	NC		%	40
7744794	MKX	QC Standard	Total Suspended Solids	2021/12/23		100	%	80 - 120
7744794	MKX	Method Blank	Total Suspended Solids	2021/12/23	<1.0		mg/L	
7744794	MKX	RPD [RKL797-01]	Total Suspended Solids	2021/12/23	1.4		%	20
7745378	THL	Matrix Spike	Isobutylbenzene - Volatile	2021/12/22		111	%	70 - 130
			Benzene	2021/12/22		90	%	70 - 130
			Toluene	2021/12/22		90	%	70 - 130
			Ethylbenzene	2021/12/22		92	%	70 - 130
			Total Xylenes	2021/12/22		91	%	70 - 130
7745378	THL	Spiked Blank	Isobutylbenzene - Volatile	2021/12/21		103	%	70 - 130
			Benzene	2021/12/21		96	%	70 - 130
			Toluene	2021/12/21		92	%	70 - 130
			Ethylbenzene	2021/12/21		92	%	70 - 130
			Total Xylenes	2021/12/21		91	%	70 - 130
7745378	THL	Method Blank	Isobutylbenzene - Volatile	2021/12/21		104	%	70 - 130
			Benzene	2021/12/21	<0.0010		mg/L	
			Toluene	2021/12/21	<0.0010		mg/L	
			Ethylbenzene	2021/12/21	<0.0010		mg/L	
			Total Xylenes	2021/12/21	<0.0020		mg/L	
			C6 - C10 (less BTEX)	2021/12/21	<0.090		mg/L	
7745378	THL	RPD	Benzene	2021/12/22	NC		%	40
			Toluene	2021/12/22	NC		%	40
			Ethylbenzene	2021/12/22	NC		%	40
			Total Xylenes	2021/12/22	NC		%	40
			C6 - C10 (less BTEX)	2021/12/22	NC		%	40
7745917	MGN	Matrix Spike	Isobutylbenzene - Extractable	2021/12/22		89	%	70 - 130
			n-Dotriacontane - Extractable	2021/12/22		92	%	70 - 130
			>C10-C16 Hydrocarbons	2021/12/22		71	%	70 - 130
			>C16-C21 Hydrocarbons	2021/12/22		66 (2)	%	70 - 130
			>C21-<C32 Hydrocarbons	2021/12/22		71	%	70 - 130
7745917	MGN	Spiked Blank	Isobutylbenzene - Extractable	2021/12/22		84	%	70 - 130
			n-Dotriacontane - Extractable	2021/12/22		109	%	70 - 130
			>C10-C16 Hydrocarbons	2021/12/22		86	%	70 - 130
			>C16-C21 Hydrocarbons	2021/12/22		74	%	70 - 130
			>C21-<C32 Hydrocarbons	2021/12/22		72	%	70 - 130
7745917	MGN	Method Blank	Isobutylbenzene - Extractable	2021/12/22		71	%	70 - 130
			n-Dotriacontane - Extractable	2021/12/22		113	%	70 - 130
			>C10-C16 Hydrocarbons	2021/12/22	<0.050		mg/L	
			>C16-C21 Hydrocarbons	2021/12/22	<0.050		mg/L	
			>C21-<C32 Hydrocarbons	2021/12/22	<0.090		mg/L	
7745917	MGN	RPD	>C10-C16 Hydrocarbons	2021/12/22	NC		%	40
			>C16-C21 Hydrocarbons	2021/12/22	NC		%	40
			>C21-<C32 Hydrocarbons	2021/12/22	NC		%	40
7745965	MGN	Matrix Spike	Isobutylbenzene - Extractable	2021/12/22		98	%	70 - 130
			n-Dotriacontane - Extractable	2021/12/22		102	%	70 - 130
			>C10-C16 Hydrocarbons	2021/12/22		92	%	70 - 130
			>C16-C21 Hydrocarbons	2021/12/22		87	%	70 - 130
			>C21-<C32 Hydrocarbons	2021/12/22		88	%	70 - 130



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### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7745965	MGN	Spiked Blank	Isobutylbenzene - Extractable	2021/12/22		106	%	70 - 130
			n-Dotriacontane - Extractable	2021/12/22		111	%	70 - 130
			>C10-C16 Hydrocarbons	2021/12/22		103	%	70 - 130
			>C16-C21 Hydrocarbons	2021/12/22		95	%	70 - 130
			>C21-<C32 Hydrocarbons	2021/12/22		96	%	70 - 130
7745965	MGN	Method Blank	Isobutylbenzene - Extractable	2021/12/22		104	%	70 - 130
			n-Dotriacontane - Extractable	2021/12/22		105	%	70 - 130
			>C10-C16 Hydrocarbons	2021/12/22	<0.050		mg/L	
			>C16-C21 Hydrocarbons	2021/12/22	<0.050		mg/L	
			>C21-<C32 Hydrocarbons	2021/12/22	<0.090		mg/L	
7745965	MGN	RPD	>C10-C16 Hydrocarbons	2021/12/22	NC		%	40
			>C16-C21 Hydrocarbons	2021/12/22	NC		%	40
			>C21-<C32 Hydrocarbons	2021/12/22	NC		%	40
7746407	KLE	QC Standard	Total Suspended Solids	2021/12/29		99	%	80 - 120
7746407	KLE	Method Blank	Total Suspended Solids	2021/12/29	<1.0		mg/L	
7746407	KLE	RPD	Total Suspended Solids	2021/12/29	4.7		%	20
7747598	MCN	Matrix Spike [RKL799-14]	Nitrogen (Ammonia Nitrogen)	2021/12/22		98	%	80 - 120
7747598	MCN	Spiked Blank	Nitrogen (Ammonia Nitrogen)	2021/12/22		108	%	80 - 120
7747598	MCN	Method Blank	Nitrogen (Ammonia Nitrogen)	2021/12/22	<0.050		mg/L	
7747598	MCN	RPD [RKL799-14]	Nitrogen (Ammonia Nitrogen)	2021/12/22	7.7		%	20
7747599	MCN	Matrix Spike [RKL815-14]	Nitrogen (Ammonia Nitrogen)	2021/12/22		87	%	80 - 120
7747599	MCN	Spiked Blank	Nitrogen (Ammonia Nitrogen)	2021/12/22		104	%	80 - 120
7747599	MCN	Method Blank	Nitrogen (Ammonia Nitrogen)	2021/12/22	<0.050		mg/L	
7747599	MCN	RPD [RKL815-14]	Nitrogen (Ammonia Nitrogen)	2021/12/22	NC		%	20
7747675	NGI	Matrix Spike [RKL802-06]	Total Organic Carbon (C)	2021/12/23		95	%	85 - 115
7747675	NGI	Spiked Blank	Total Organic Carbon (C)	2021/12/23		98	%	80 - 120
7747675	NGI	Method Blank	Total Organic Carbon (C)	2021/12/23	<0.50		mg/L	
7747675	NGI	RPD [RKL802-06]	Total Organic Carbon (C)	2021/12/23	1.3		%	15
7747724	KLE	QC Standard	Total Suspended Solids	2021/12/29		100	%	80 - 120
7747724	KLE	Method Blank	Total Suspended Solids	2021/12/29	<1.0		mg/L	
7747724	KLE	RPD [RKL811-01]	Total Suspended Solids	2021/12/29	10		%	20
7747884	MSK	Matrix Spike	Isobutylbenzene - Extractable	2021/12/22		100	%	70 - 130
			n-Dotriacontane - Extractable	2021/12/22		105	%	70 - 130
			>C10-C16 Hydrocarbons	2021/12/22		102	%	70 - 130
			>C16-C21 Hydrocarbons	2021/12/22		101	%	70 - 130
			>C21-<C32 Hydrocarbons	2021/12/22		110	%	70 - 130
7747884	MSK	Spiked Blank	Isobutylbenzene - Extractable	2021/12/22		87	%	70 - 130
			n-Dotriacontane - Extractable	2021/12/22		90	%	70 - 130
			>C10-C16 Hydrocarbons	2021/12/22		110	%	70 - 130
			>C16-C21 Hydrocarbons	2021/12/22		101	%	70 - 130
			>C21-<C32 Hydrocarbons	2021/12/22		111	%	70 - 130
7747884	MSK	Method Blank	Isobutylbenzene - Extractable	2021/12/22		100	%	70 - 130
			n-Dotriacontane - Extractable	2021/12/22		109	%	70 - 130
			>C10-C16 Hydrocarbons	2021/12/22	<0.050		mg/L	
			>C16-C21 Hydrocarbons	2021/12/22	<0.050		mg/L	
			>C21-<C32 Hydrocarbons	2021/12/22	<0.090		mg/L	
7747884	MSK	RPD	>C10-C16 Hydrocarbons	2021/12/22	NC		%	40
			>C16-C21 Hydrocarbons	2021/12/22	NC		%	40
			>C21-<C32 Hydrocarbons	2021/12/22	NC		%	40
7747934	THL	Matrix Spike [RKL821-15]	Isobutylbenzene - Volatile	2021/12/22		109	%	70 - 130
			Benzene	2021/12/22		88	%	70 - 130
			Toluene	2021/12/22		89	%	70 - 130
			Ethylbenzene	2021/12/22		91	%	70 - 130
			Total Xylenes	2021/12/22		90	%	70 - 130



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### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7747934	THL	Spiked Blank	Isobutylbenzene - Volatile	2021/12/22		106	%	70 - 130
			Benzene	2021/12/22		97	%	70 - 130
			Toluene	2021/12/22		97	%	70 - 130
			Ethylbenzene	2021/12/22		97	%	70 - 130
			Total Xylenes	2021/12/22		96	%	70 - 130
7747934	THL	Method Blank	Isobutylbenzene - Volatile	2021/12/22		105	%	70 - 130
			Benzene	2021/12/22	<0.0010		mg/L	
			Toluene	2021/12/22	<0.0010		mg/L	
			Ethylbenzene	2021/12/22	<0.0010		mg/L	
			Total Xylenes	2021/12/22	<0.0020		mg/L	
7747934	THL	RPD [RKL820-15]	C6 - C10 (less BTEX)	2021/12/22	<0.090		mg/L	
			Benzene	2021/12/22	NC		%	40
			Toluene	2021/12/22	2.3		%	40
			Ethylbenzene	2021/12/22	NC		%	40
			Total Xylenes	2021/12/22	NC		%	40
7747988	ABP	Matrix Spike [RKL797-10]	C6 - C10 (less BTEX)	2021/12/22	NC		%	40
			Benzene	2021/12/22	NC		%	40
			Toluene	2021/12/22	2.3		%	40
			Ethylbenzene	2021/12/22	NC		%	40
			Total Xylenes	2021/12/22	NC		%	40
7747988	ABP	Spiked Blank	WAD Cyanide (Free)	2021/12/22		96	%	80 - 120
7747988	ABP	Method Blank	WAD Cyanide (Free)	2021/12/22	<0.0010		mg/L	
7747988	ABP	RPD [RKL797-10]	WAD Cyanide (Free)	2021/12/22	NC		%	20
7748236	SSV	Matrix Spike [RKL823-05]	Dissolved Phosphorus	2021/12/31		96	%	80 - 120
7748236	SSV	QC Standard	Dissolved Phosphorus	2021/12/31		96	%	80 - 120
7748236	SSV	Spiked Blank	Dissolved Phosphorus	2021/12/31		94	%	80 - 120
7748236	SSV	Method Blank	Dissolved Phosphorus	2021/12/31	<0.020		mg/L	
7748236	SSV	RPD [RKL823-05]	Dissolved Phosphorus	2021/12/31	NC		%	20
7748280	ABP	Matrix Spike [RKL817-10]	WAD Cyanide (Free)	2021/12/22		94	%	80 - 120
7748280	ABP	Spiked Blank	WAD Cyanide (Free)	2021/12/22		95	%	80 - 120
7748280	ABP	Method Blank	WAD Cyanide (Free)	2021/12/22	<0.0010		mg/L	
7748280	ABP	RPD [RKL817-10]	WAD Cyanide (Free)	2021/12/22	NC		%	20
7748288	ABP	Matrix Spike [RKL837-10]	WAD Cyanide (Free)	2021/12/22		89	%	80 - 120
7748288	ABP	Spiked Blank	WAD Cyanide (Free)	2021/12/22		94	%	80 - 120
7748288	ABP	Method Blank	WAD Cyanide (Free)	2021/12/22	<0.0010		mg/L	
7748288	ABP	RPD [RKL837-10]	WAD Cyanide (Free)	2021/12/22	NC		%	20
7748365	EMT	Matrix Spike	Total Phosphorus	2021/12/24		107	%	80 - 120
7748365	EMT	Spiked Blank	Total Phosphorus	2021/12/24		106	%	80 - 120
7748365	EMT	Method Blank	Total Phosphorus	2021/12/24	<0.020		mg/L	
7748365	EMT	RPD	Total Phosphorus	2021/12/24	NC		%	25
7748963	GTH	QC Standard	Total Suspended Solids	2021/12/28		99	%	80 - 120
7748963	GTH	Method Blank	Total Suspended Solids	2021/12/28	<1.0		mg/L	
7748963	GTH	RPD	Total Suspended Solids	2021/12/28	13		%	20
7750655	MCN	Matrix Spike	Nitrogen (Ammonia Nitrogen)	2021/12/23		103	%	80 - 120
7750655	MCN	Spiked Blank	Nitrogen (Ammonia Nitrogen)	2021/12/23		106	%	80 - 120
7750655	MCN	Method Blank	Nitrogen (Ammonia Nitrogen)	2021/12/23	<0.050		mg/L	
7750655	MCN	RPD	Nitrogen (Ammonia Nitrogen)	2021/12/23	15		%	20
7750695	ZMR	Matrix Spike	Isobutylbenzene - Extractable	2021/12/23		83	%	70 - 130
			n-Dotriacontane - Extractable	2021/12/23		99	%	70 - 130
			>C10-C16 Hydrocarbons	2021/12/23		87	%	70 - 130
			>C16-C21 Hydrocarbons	2021/12/23		79	%	70 - 130
			>C21-<C32 Hydrocarbons	2021/12/23		78	%	70 - 130
7750695	ZMR	Spiked Blank	Isobutylbenzene - Extractable	2021/12/23		100	%	70 - 130
			n-Dotriacontane - Extractable	2021/12/23		119	%	70 - 130
			>C10-C16 Hydrocarbons	2021/12/23		104	%	70 - 130
			>C16-C21 Hydrocarbons	2021/12/23		93	%	70 - 130
			>C21-<C32 Hydrocarbons	2021/12/23		91	%	70 - 130



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Anaconda Mining Inc  
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### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
	7750695	ZMR	Method Blank	Isobutylbenzene - Extractable	2021/12/23		101	%	70 - 130
				n-Dotriacontane - Extractable	2021/12/23		107	%	70 - 130
				>C10-C16 Hydrocarbons	2021/12/23	<0.050		mg/L	
				>C16-C21 Hydrocarbons	2021/12/23	<0.050		mg/L	
				>C21-<C32 Hydrocarbons	2021/12/23	<0.090		mg/L	
	7750695	ZMR	RPD	>C10-C16 Hydrocarbons	2021/12/23	NC		%	40
				>C16-C21 Hydrocarbons	2021/12/23	NC		%	40
				>C21-<C32 Hydrocarbons	2021/12/23	NC		%	40
	7750741	BAN	Matrix Spike	Dissolved Aluminum (Al)	2021/12/23		98	%	80 - 120
				Dissolved Antimony (Sb)	2021/12/23		99	%	80 - 120
				Dissolved Arsenic (As)	2021/12/23		93	%	80 - 120
				Dissolved Barium (Ba)	2021/12/23		94	%	80 - 120
				Dissolved Beryllium (Be)	2021/12/23		98	%	80 - 120
				Dissolved Bismuth (Bi)	2021/12/23		94	%	80 - 120
				Dissolved Boron (B)	2021/12/23		96	%	80 - 120
				Dissolved Cadmium (Cd)	2021/12/23		94	%	80 - 120
				Dissolved Calcium (Ca)	2021/12/23		100	%	80 - 120
				Dissolved Chromium (Cr)	2021/12/23		95	%	80 - 120
				Dissolved Cobalt (Co)	2021/12/23		95	%	80 - 120
				Dissolved Copper (Cu)	2021/12/23		96	%	80 - 120
				Dissolved Iron (Fe)	2021/12/23		98	%	80 - 120
				Dissolved Lead (Pb)	2021/12/23		96	%	80 - 120
				Dissolved Magnesium (Mg)	2021/12/23		97	%	80 - 120
				Dissolved Manganese (Mn)	2021/12/23		97	%	80 - 120
				Dissolved Molybdenum (Mo)	2021/12/23		99	%	80 - 120
				Dissolved Nickel (Ni)	2021/12/23		96	%	80 - 120
				Dissolved Phosphorus (P)	2021/12/23		101	%	80 - 120
				Dissolved Potassium (K)	2021/12/23		100	%	80 - 120
				Dissolved Selenium (Se)	2021/12/23		95	%	80 - 120
				Dissolved Silver (Ag)	2021/12/23		95	%	80 - 120
				Dissolved Sodium (Na)	2021/12/23		NC	%	80 - 120
				Dissolved Strontium (Sr)	2021/12/23		90	%	80 - 120
				Dissolved Thallium (Tl)	2021/12/23		96	%	80 - 120
				Dissolved Tin (Sn)	2021/12/23		98	%	80 - 120
				Dissolved Titanium (Ti)	2021/12/23		98	%	80 - 120
				Dissolved Uranium (U)	2021/12/23		99	%	80 - 120
				Dissolved Vanadium (V)	2021/12/23		95	%	80 - 120
				Dissolved Zinc (Zn)	2021/12/23		97	%	80 - 120
	7750741	BAN	Spiked Blank	Dissolved Aluminum (Al)	2021/12/23		99	%	80 - 120
				Dissolved Antimony (Sb)	2021/12/23		96	%	80 - 120
				Dissolved Arsenic (As)	2021/12/23		92	%	80 - 120
				Dissolved Barium (Ba)	2021/12/23		94	%	80 - 120
				Dissolved Beryllium (Be)	2021/12/23		95	%	80 - 120
				Dissolved Bismuth (Bi)	2021/12/23		95	%	80 - 120
				Dissolved Boron (B)	2021/12/23		94	%	80 - 120
				Dissolved Cadmium (Cd)	2021/12/23		94	%	80 - 120
				Dissolved Calcium (Ca)	2021/12/23		99	%	80 - 120
				Dissolved Chromium (Cr)	2021/12/23		96	%	80 - 120
				Dissolved Cobalt (Co)	2021/12/23		97	%	80 - 120
				Dissolved Copper (Cu)	2021/12/23		97	%	80 - 120
				Dissolved Iron (Fe)	2021/12/23		101	%	80 - 120
				Dissolved Lead (Pb)	2021/12/23		96	%	80 - 120
				Dissolved Magnesium (Mg)	2021/12/23		99	%	80 - 120
				Dissolved Manganese (Mn)	2021/12/23		98	%	80 - 120



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### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Molybdenum (Mo)	2021/12/23		99	%	80 - 120
			Dissolved Nickel (Ni)	2021/12/23		98	%	80 - 120
			Dissolved Phosphorus (P)	2021/12/23		101	%	80 - 120
			Dissolved Potassium (K)	2021/12/23		100	%	80 - 120
			Dissolved Selenium (Se)	2021/12/23		94	%	80 - 120
			Dissolved Silver (Ag)	2021/12/23		93	%	80 - 120
			Dissolved Sodium (Na)	2021/12/23		98	%	80 - 120
			Dissolved Strontium (Sr)	2021/12/23		96	%	80 - 120
			Dissolved Thallium (Tl)	2021/12/23		96	%	80 - 120
			Dissolved Tin (Sn)	2021/12/23		96	%	80 - 120
			Dissolved Titanium (Ti)	2021/12/23		98	%	80 - 120
			Dissolved Uranium (U)	2021/12/23		99	%	80 - 120
			Dissolved Vanadium (V)	2021/12/23		97	%	80 - 120
			Dissolved Zinc (Zn)	2021/12/23		98	%	80 - 120
7750741	BAN	Method Blank	Dissolved Aluminum (Al)	2021/12/23	<5.0		ug/L	
			Dissolved Antimony (Sb)	2021/12/23	<1.0		ug/L	
			Dissolved Arsenic (As)	2021/12/23	<1.0		ug/L	
			Dissolved Barium (Ba)	2021/12/23	<1.0		ug/L	
			Dissolved Beryllium (Be)	2021/12/23	<0.10		ug/L	
			Dissolved Bismuth (Bi)	2021/12/23	<2.0		ug/L	
			Dissolved Boron (B)	2021/12/23	<50		ug/L	
			Dissolved Cadmium (Cd)	2021/12/23	<0.010		ug/L	
			Dissolved Calcium (Ca)	2021/12/23	<100		ug/L	
			Dissolved Chromium (Cr)	2021/12/23	<1.0		ug/L	
			Dissolved Cobalt (Co)	2021/12/23	<0.40		ug/L	
			Dissolved Copper (Cu)	2021/12/23	<0.50		ug/L	
			Dissolved Iron (Fe)	2021/12/23	<50		ug/L	
			Dissolved Lead (Pb)	2021/12/23	<0.50		ug/L	
			Dissolved Magnesium (Mg)	2021/12/23	<100		ug/L	
			Dissolved Manganese (Mn)	2021/12/23	<2.0		ug/L	
			Dissolved Molybdenum (Mo)	2021/12/23	<2.0		ug/L	
			Dissolved Nickel (Ni)	2021/12/23	<2.0		ug/L	
			Dissolved Phosphorus (P)	2021/12/23	<100		ug/L	
			Dissolved Potassium (K)	2021/12/23	<100		ug/L	
			Dissolved Selenium (Se)	2021/12/23	<0.50		ug/L	
			Dissolved Silver (Ag)	2021/12/23	<0.10		ug/L	
			Dissolved Sodium (Na)	2021/12/23	<100		ug/L	
			Dissolved Strontium (Sr)	2021/12/23	<2.0		ug/L	
			Dissolved Thallium (Tl)	2021/12/23	<0.10		ug/L	
			Dissolved Tin (Sn)	2021/12/23	<2.0		ug/L	
			Dissolved Titanium (Ti)	2021/12/23	<2.0		ug/L	
			Dissolved Uranium (U)	2021/12/23	<0.10		ug/L	
			Dissolved Vanadium (V)	2021/12/23	<2.0		ug/L	
			Dissolved Zinc (Zn)	2021/12/23	<5.0		ug/L	
7750741	BAN	RPD	Dissolved Aluminum (Al)	2021/12/23	NC		%	20
			Dissolved Antimony (Sb)	2021/12/23	NC		%	20
			Dissolved Arsenic (As)	2021/12/23	NC		%	20
			Dissolved Barium (Ba)	2021/12/23	0.57		%	20
			Dissolved Beryllium (Be)	2021/12/23	NC		%	20
			Dissolved Bismuth (Bi)	2021/12/23	NC		%	20
			Dissolved Boron (B)	2021/12/23	NC		%	20
			Dissolved Cadmium (Cd)	2021/12/23	NC		%	20
			Dissolved Calcium (Ca)	2021/12/23	1.4		%	20
			Dissolved Chromium (Cr)	2021/12/23	NC		%	20





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### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Cobalt (Co)	2021/12/23	NC		%	20
			Dissolved Copper (Cu)	2021/12/23	1.1		%	20
			Dissolved Iron (Fe)	2021/12/23	NC		%	20
			Dissolved Lead (Pb)	2021/12/23	NC		%	20
			Dissolved Magnesium (Mg)	2021/12/23	0.86		%	20
			Dissolved Manganese (Mn)	2021/12/23	0.91		%	20
			Dissolved Molybdenum (Mo)	2021/12/23	NC		%	20
			Dissolved Nickel (Ni)	2021/12/23	NC		%	20
			Dissolved Phosphorus (P)	2021/12/23	NC		%	20
			Dissolved Potassium (K)	2021/12/23	1.8		%	20
			Dissolved Selenium (Se)	2021/12/23	NC		%	20
			Dissolved Silver (Ag)	2021/12/23	NC		%	20
			Dissolved Sodium (Na)	2021/12/23	1.0		%	20
			Dissolved Strontium (Sr)	2021/12/23	1.1		%	20
			Dissolved Thallium (Tl)	2021/12/23	NC		%	20
			Dissolved Tin (Sn)	2021/12/23	NC		%	20
			Dissolved Titanium (Ti)	2021/12/23	NC		%	20
			Dissolved Uranium (U)	2021/12/23	NC		%	20
			Dissolved Vanadium (V)	2021/12/23	NC		%	20
			Dissolved Zinc (Zn)	2021/12/23	NC		%	20
7750826	MKX	QC Standard	Total Suspended Solids	2022/01/10		99	%	80 - 120
7750826	MKX	Method Blank	Total Suspended Solids	2022/01/10	<1.0		mg/L	
7750826	MKX	RPD [RKL827-01]	Total Suspended Solids	2022/01/10	6.8		%	20
7750848	ZZH	Matrix Spike	Total Chemical Oxygen Demand	2021/12/23		105	%	80 - 120
7750848	ZZH	QC Standard	Total Chemical Oxygen Demand	2021/12/23		103	%	80 - 120
7750848	ZZH	Spiked Blank	Total Chemical Oxygen Demand	2021/12/23		102	%	80 - 120
7750848	ZZH	Method Blank	Total Chemical Oxygen Demand	2021/12/23	<20		mg/L	
7750848	ZZH	RPD	Total Chemical Oxygen Demand	2021/12/23	8.1		%	25
7751443	ABP	Matrix Spike [RKL797-10]	Total Cyanide (CN)	2021/12/22		97	%	80 - 120
7751443	ABP	Spiked Blank	Total Cyanide (CN)	2021/12/22		98	%	80 - 120
7751443	ABP	Method Blank	Total Cyanide (CN)	2021/12/22	<0.0050		mg/L	
7751443	ABP	RPD [RKL797-10]	Total Cyanide (CN)	2021/12/22	NC		%	20
7751452	ABP	Matrix Spike [RKL817-10]	Total Cyanide (CN)	2021/12/22		101	%	80 - 120
7751452	ABP	Spiked Blank	Total Cyanide (CN)	2021/12/22		101	%	80 - 120
7751452	ABP	Method Blank	Total Cyanide (CN)	2021/12/22	<0.0050		mg/L	
7751452	ABP	RPD [RKL817-10]	Total Cyanide (CN)	2021/12/22	NC		%	20
7751454	ABP	Matrix Spike [RKL837-10]	Total Cyanide (CN)	2021/12/22		92	%	80 - 120
7751454	ABP	Spiked Blank	Total Cyanide (CN)	2021/12/22		102	%	80 - 120
7751454	ABP	Method Blank	Total Cyanide (CN)	2021/12/22	<0.0050		mg/L	
7751454	ABP	RPD [RKL837-10]	Total Cyanide (CN)	2021/12/22	NC		%	20
7752245	SSV	Matrix Spike [RKL826-05]	Dissolved Phosphorus	2022/01/04		89	%	80 - 120
7752245	SSV	QC Standard	Dissolved Phosphorus	2022/01/04		91	%	80 - 120
7752245	SSV	Spiked Blank	Dissolved Phosphorus	2022/01/04		101	%	80 - 120
7752245	SSV	Method Blank	Dissolved Phosphorus	2022/01/04	<0.020		mg/L	
7752245	SSV	RPD [RKL826-05]	Dissolved Phosphorus	2022/01/04	NC		%	20
7753579	NGI	Matrix Spike	Total Organic Carbon (C)	2021/12/24		99	%	85 - 115
7753579	NGI	Spiked Blank	Total Organic Carbon (C)	2021/12/24		99	%	80 - 120
7753579	NGI	Method Blank	Total Organic Carbon (C)	2021/12/24	<0.50		mg/L	
7753579	NGI	RPD	Total Organic Carbon (C)	2021/12/24	4.2		%	15
7753580	NGI	Matrix Spike	Total Organic Carbon (C)	2021/12/24		97	%	85 - 115
7753580	NGI	Spiked Blank	Total Organic Carbon (C)	2021/12/24		98	%	80 - 120
7753580	NGI	Method Blank	Total Organic Carbon (C)	2021/12/24	<0.50		mg/L	
7753580	NGI	RPD	Total Organic Carbon (C)	2021/12/24	4.0		%	15
7753720	NGI	Matrix Spike [RKL831-07]	Dissolved Organic Carbon (C)	2021/12/28		98	%	85 - 115



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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7753720	NGI	Spiked Blank	Dissolved Organic Carbon (C)	2021/12/28		101	%	80 - 120
7753720	NGI	Method Blank	Dissolved Organic Carbon (C)	2021/12/28	<0.5		mg/L	
7753720	NGI	RPD [RKL831-07]	Dissolved Organic Carbon (C)	2021/12/28	1.8		%	15
7754293	SSV	Matrix Spike [RKL812-05]	Dissolved Phosphorus	2022/01/06		103	%	80 - 120
7754293	SSV	QC Standard	Dissolved Phosphorus	2022/01/06		102	%	80 - 120
7754293	SSV	Spiked Blank	Dissolved Phosphorus	2022/01/06		102	%	80 - 120
7754293	SSV	Method Blank	Dissolved Phosphorus	2022/01/06	<0.020		mg/L	
7754293	SSV	RPD [RKL812-05]	Dissolved Phosphorus	2022/01/06	NC		%	20
7755656	KMC	Spiked Blank	pH	2021/12/27		100	%	97 - 103
7755656	KMC	RPD	pH	2021/12/27	0.33		%	N/A
7755657	KMC	Spiked Blank	Conductivity	2021/12/27		101	%	80 - 120
7755657	KMC	Method Blank	Conductivity	2021/12/27	<1.0		uS/cm	
7755657	KMC	RPD	Conductivity	2021/12/27	0.21		%	10
7755658	KMC	Spiked Blank	pH	2021/12/27		100	%	97 - 103
7755658	KMC	RPD	pH	2021/12/27	0.11		%	N/A
7755659	KMC	Spiked Blank	Conductivity	2021/12/27		100	%	80 - 120
7755659	KMC	Method Blank	Conductivity	2021/12/27	<1.0		uS/cm	
7755659	KMC	RPD	Conductivity	2021/12/27	0.088		%	10
7755662	KMC	Spiked Blank	pH	2021/12/27		100	%	97 - 103
7755662	KMC	RPD	pH	2021/12/27	0.42		%	N/A
7755663	KMC	Spiked Blank	Conductivity	2021/12/27		99	%	80 - 120
7755663	KMC	Method Blank	Conductivity	2021/12/27	<1.0		uS/cm	
7755663	KMC	RPD	Conductivity	2021/12/27	0.57		%	10
7756095	MLB	Matrix Spike	Dissolved Aluminum (Al)	2021/12/28		101	%	80 - 120
			Dissolved Antimony (Sb)	2021/12/28		99	%	80 - 120
			Dissolved Arsenic (As)	2021/12/28		93	%	80 - 120
			Dissolved Barium (Ba)	2021/12/28		95	%	80 - 120
			Dissolved Beryllium (Be)	2021/12/28		97	%	80 - 120
			Dissolved Bismuth (Bi)	2021/12/28		97	%	80 - 120
			Dissolved Boron (B)	2021/12/28		96	%	80 - 120
			Dissolved Cadmium (Cd)	2021/12/28		96	%	80 - 120
			Dissolved Calcium (Ca)	2021/12/28		94	%	80 - 120
			Dissolved Chromium (Cr)	2021/12/28		95	%	80 - 120
			Dissolved Cobalt (Co)	2021/12/28		96	%	80 - 120
			Dissolved Copper (Cu)	2021/12/28		96	%	80 - 120
			Dissolved Iron (Fe)	2021/12/28		99	%	80 - 120
			Dissolved Lead (Pb)	2021/12/28		98	%	80 - 120
			Dissolved Magnesium (Mg)	2021/12/28		102	%	80 - 120
			Dissolved Manganese (Mn)	2021/12/28		95	%	80 - 120
			Dissolved Molybdenum (Mo)	2021/12/28		101	%	80 - 120
			Dissolved Nickel (Ni)	2021/12/28		96	%	80 - 120
			Dissolved Phosphorus (P)	2021/12/28		104	%	80 - 120
			Dissolved Potassium (K)	2021/12/28		99	%	80 - 120
			Dissolved Selenium (Se)	2021/12/28		99	%	80 - 120
			Dissolved Silver (Ag)	2021/12/28		97	%	80 - 120
			Dissolved Sodium (Na)	2021/12/28		92	%	80 - 120
			Dissolved Strontium (Sr)	2021/12/28		86	%	80 - 120
			Dissolved Thallium (Tl)	2021/12/28		99	%	80 - 120
			Dissolved Tin (Sn)	2021/12/28		98	%	80 - 120
			Dissolved Titanium (Ti)	2021/12/28		98	%	80 - 120
			Dissolved Uranium (U)	2021/12/28		104	%	80 - 120
			Dissolved Vanadium (V)	2021/12/28		98	%	80 - 120
			Dissolved Zinc (Zn)	2021/12/28		95	%	80 - 120
7756095	MLB	Spiked Blank	Dissolved Aluminum (Al)	2021/12/28		102	%	80 - 120



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283  
Report Date: 2022/01/27

Anaconda Mining Inc  
Site Location: GOLDBORO  
Your P.O. #: 0267

### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Antimony (Sb)	2021/12/28		98	%	80 - 120
			Dissolved Arsenic (As)	2021/12/28		93	%	80 - 120
			Dissolved Barium (Ba)	2021/12/28		97	%	80 - 120
			Dissolved Beryllium (Be)	2021/12/28		96	%	80 - 120
			Dissolved Bismuth (Bi)	2021/12/28		95	%	80 - 120
			Dissolved Boron (B)	2021/12/28		94	%	80 - 120
			Dissolved Cadmium (Cd)	2021/12/28		96	%	80 - 120
			Dissolved Calcium (Ca)	2021/12/28		100	%	80 - 120
			Dissolved Chromium (Cr)	2021/12/28		96	%	80 - 120
			Dissolved Cobalt (Co)	2021/12/28		96	%	80 - 120
			Dissolved Copper (Cu)	2021/12/28		97	%	80 - 120
			Dissolved Iron (Fe)	2021/12/28		101	%	80 - 120
			Dissolved Lead (Pb)	2021/12/28		97	%	80 - 120
			Dissolved Magnesium (Mg)	2021/12/28		105	%	80 - 120
			Dissolved Manganese (Mn)	2021/12/28		98	%	80 - 120
			Dissolved Molybdenum (Mo)	2021/12/28		98	%	80 - 120
			Dissolved Nickel (Ni)	2021/12/28		98	%	80 - 120
			Dissolved Phosphorus (P)	2021/12/28		105	%	80 - 120
			Dissolved Potassium (K)	2021/12/28		100	%	80 - 120
			Dissolved Selenium (Se)	2021/12/28		99	%	80 - 120
			Dissolved Silver (Ag)	2021/12/28		97	%	80 - 120
			Dissolved Sodium (Na)	2021/12/28		100	%	80 - 120
			Dissolved Strontium (Sr)	2021/12/28		94	%	80 - 120
			Dissolved Thallium (Tl)	2021/12/28		98	%	80 - 120
			Dissolved Tin (Sn)	2021/12/28		100	%	80 - 120
			Dissolved Titanium (Ti)	2021/12/28		100	%	80 - 120
			Dissolved Uranium (U)	2021/12/28		102	%	80 - 120
			Dissolved Vanadium (V)	2021/12/28		98	%	80 - 120
			Dissolved Zinc (Zn)	2021/12/28		100	%	80 - 120
7756095	MLB	Method Blank	Dissolved Aluminum (Al)	2021/12/28	<0.0050		mg/L	
			Dissolved Antimony (Sb)	2021/12/28	<0.0010		mg/L	
			Dissolved Arsenic (As)	2021/12/28	<0.0010		mg/L	
			Dissolved Barium (Ba)	2021/12/28	<0.0010		mg/L	
			Dissolved Beryllium (Be)	2021/12/28	<0.00010		mg/L	
			Dissolved Bismuth (Bi)	2021/12/28	<0.0020		mg/L	
			Dissolved Boron (B)	2021/12/28	<0.050		mg/L	
			Dissolved Cadmium (Cd)	2021/12/28	<0.000010		mg/L	
			Dissolved Calcium (Ca)	2021/12/28	<0.10		mg/L	
			Dissolved Chromium (Cr)	2021/12/28	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2021/12/28	<0.00040		mg/L	
			Dissolved Copper (Cu)	2021/12/28	<0.00050		mg/L	
			Dissolved Iron (Fe)	2021/12/28	<0.050		mg/L	
			Dissolved Lead (Pb)	2021/12/28	<0.00050		mg/L	
			Dissolved Magnesium (Mg)	2021/12/28	<0.10		mg/L	
			Dissolved Manganese (Mn)	2021/12/28	<0.0020		mg/L	
			Dissolved Molybdenum (Mo)	2021/12/28	<0.0020		mg/L	
			Dissolved Nickel (Ni)	2021/12/28	<0.0020		mg/L	
			Dissolved Phosphorus (P)	2021/12/28	<0.10		mg/L	
			Dissolved Potassium (K)	2021/12/28	<0.10		mg/L	
			Dissolved Selenium (Se)	2021/12/28	<0.00050		mg/L	
			Dissolved Silver (Ag)	2021/12/28	<0.00010		mg/L	
			Dissolved Sodium (Na)	2021/12/28	<0.10		mg/L	
			Dissolved Strontium (Sr)	2021/12/28	<0.0020		mg/L	
			Dissolved Thallium (Tl)	2021/12/28	<0.00010		mg/L	



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VERITAS

Bureau Veritas Job #: C1Z7283

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Anaconda Mining Inc

Site Location: GOLDBORO

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### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Tin (Sn)	2021/12/28	<0.0020		mg/L	
			Dissolved Titanium (Ti)	2021/12/28	<0.0020		mg/L	
			Dissolved Uranium (U)	2021/12/28	<0.00010		mg/L	
			Dissolved Vanadium (V)	2021/12/28	<0.0020		mg/L	
			Dissolved Zinc (Zn)	2021/12/28	<0.0050		mg/L	
7756095	MLB	RPD	Dissolved Potassium (K)	2021/12/28	0.19		%	20
			Dissolved Sodium (Na)	2021/12/28	2.3		%	20
7756096	MLB	Matrix Spike	Dissolved Aluminum (Al)	2021/12/29		100	%	80 - 120
			Dissolved Antimony (Sb)	2021/12/29		100	%	80 - 120
			Dissolved Arsenic (As)	2021/12/29		94	%	80 - 120
			Dissolved Barium (Ba)	2021/12/29		100	%	80 - 120
			Dissolved Beryllium (Be)	2021/12/29		98	%	80 - 120
			Dissolved Bismuth (Bi)	2021/12/29		84	%	80 - 120
			Dissolved Boron (B)	2021/12/29		NC	%	80 - 120
			Dissolved Cadmium (Cd)	2021/12/29		95	%	80 - 120
			Dissolved Calcium (Ca)	2021/12/29		NC	%	80 - 120
			Dissolved Chromium (Cr)	2021/12/29		94	%	80 - 120
			Dissolved Cobalt (Co)	2021/12/29		94	%	80 - 120
			Dissolved Copper (Cu)	2021/12/29		94	%	80 - 120
			Dissolved Iron (Fe)	2021/12/29		NC	%	80 - 120
			Dissolved Lead (Pb)	2021/12/29		96	%	80 - 120
			Dissolved Magnesium (Mg)	2021/12/29		101	%	80 - 120
			Dissolved Manganese (Mn)	2021/12/29		NC	%	80 - 120
			Dissolved Molybdenum (Mo)	2021/12/29		101	%	80 - 120
			Dissolved Nickel (Ni)	2021/12/29		95	%	80 - 120
			Dissolved Phosphorus (P)	2021/12/29		105	%	80 - 120
			Dissolved Potassium (K)	2021/12/29		NC	%	80 - 120
			Dissolved Selenium (Se)	2021/12/29		86	%	80 - 120
			Dissolved Silver (Ag)	2021/12/29		68 (3)	%	80 - 120
			Dissolved Sodium (Na)	2021/12/29		NC	%	80 - 120
			Dissolved Strontium (Sr)	2021/12/29		NC	%	80 - 120
			Dissolved Thallium (Tl)	2021/12/29		98	%	80 - 120
			Dissolved Tin (Sn)	2021/12/29		99	%	80 - 120
			Dissolved Titanium (Ti)	2021/12/29		100	%	80 - 120
			Dissolved Uranium (U)	2021/12/29		100	%	80 - 120
			Dissolved Vanadium (V)	2021/12/29		98	%	80 - 120
			Dissolved Zinc (Zn)	2021/12/29		98	%	80 - 120
7756096	MLB	Spiked Blank	Dissolved Aluminum (Al)	2021/12/28		102	%	80 - 120
			Dissolved Antimony (Sb)	2021/12/28		98	%	80 - 120
			Dissolved Arsenic (As)	2021/12/28		93	%	80 - 120
			Dissolved Barium (Ba)	2021/12/28		96	%	80 - 120
			Dissolved Beryllium (Be)	2021/12/28		96	%	80 - 120
			Dissolved Bismuth (Bi)	2021/12/28		97	%	80 - 120
			Dissolved Boron (B)	2021/12/28		96	%	80 - 120
			Dissolved Cadmium (Cd)	2021/12/28		96	%	80 - 120
			Dissolved Calcium (Ca)	2021/12/28		97	%	80 - 120
			Dissolved Chromium (Cr)	2021/12/28		96	%	80 - 120
			Dissolved Cobalt (Co)	2021/12/28		97	%	80 - 120
			Dissolved Copper (Cu)	2021/12/28		97	%	80 - 120
			Dissolved Iron (Fe)	2021/12/28		101	%	80 - 120
			Dissolved Lead (Pb)	2021/12/28		96	%	80 - 120
			Dissolved Magnesium (Mg)	2021/12/28		106	%	80 - 120
			Dissolved Manganese (Mn)	2021/12/28		98	%	80 - 120
			Dissolved Molybdenum (Mo)	2021/12/28		98	%	80 - 120



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283

Report Date: 2022/01/27

Anaconda Mining Inc

Site Location: GOLDBORO

Your P.O. #: 0267

### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Nickel (Ni)	2021/12/28		98	%	80 - 120
			Dissolved Phosphorus (P)	2021/12/28		104	%	80 - 120
			Dissolved Potassium (K)	2021/12/28		100	%	80 - 120
			Dissolved Selenium (Se)	2021/12/28		97	%	80 - 120
			Dissolved Silver (Ag)	2021/12/28		97	%	80 - 120
			Dissolved Sodium (Na)	2021/12/28		99	%	80 - 120
			Dissolved Strontium (Sr)	2021/12/28		94	%	80 - 120
			Dissolved Thallium (Tl)	2021/12/28		98	%	80 - 120
			Dissolved Tin (Sn)	2021/12/28		97	%	80 - 120
			Dissolved Titanium (Ti)	2021/12/28		100	%	80 - 120
			Dissolved Uranium (U)	2021/12/28		102	%	80 - 120
			Dissolved Vanadium (V)	2021/12/28		99	%	80 - 120
			Dissolved Zinc (Zn)	2021/12/28		99	%	80 - 120
7756096	MLB	Method Blank	Dissolved Aluminum (Al)	2021/12/28	<5.0		ug/L	
			Dissolved Antimony (Sb)	2021/12/28	<1.0		ug/L	
			Dissolved Arsenic (As)	2021/12/28	<1.0		ug/L	
			Dissolved Barium (Ba)	2021/12/28	<1.0		ug/L	
			Dissolved Beryllium (Be)	2021/12/28	<0.10		ug/L	
			Dissolved Bismuth (Bi)	2021/12/28	<2.0		ug/L	
			Dissolved Boron (B)	2021/12/28	<50		ug/L	
			Dissolved Cadmium (Cd)	2021/12/28	<0.010		ug/L	
			Dissolved Calcium (Ca)	2021/12/28	<100		ug/L	
			Dissolved Chromium (Cr)	2021/12/28	<1.0		ug/L	
			Dissolved Cobalt (Co)	2021/12/28	<0.40		ug/L	
			Dissolved Copper (Cu)	2021/12/28	<0.50		ug/L	
			Dissolved Iron (Fe)	2021/12/28	<50		ug/L	
			Dissolved Lead (Pb)	2021/12/28	<0.50		ug/L	
			Dissolved Magnesium (Mg)	2021/12/28	<100		ug/L	
			Dissolved Manganese (Mn)	2021/12/28	<2.0		ug/L	
			Dissolved Molybdenum (Mo)	2021/12/28	<2.0		ug/L	
			Dissolved Nickel (Ni)	2021/12/28	<2.0		ug/L	
			Dissolved Phosphorus (P)	2021/12/28	<100		ug/L	
			Dissolved Potassium (K)	2021/12/28	<100		ug/L	
			Dissolved Selenium (Se)	2021/12/28	<0.50		ug/L	
			Dissolved Silver (Ag)	2021/12/28	<0.10		ug/L	
			Dissolved Sodium (Na)	2021/12/28	<100		ug/L	
			Dissolved Strontium (Sr)	2021/12/28	<2.0		ug/L	
			Dissolved Thallium (Tl)	2021/12/28	<0.10		ug/L	
			Dissolved Tin (Sn)	2021/12/28	<2.0		ug/L	
			Dissolved Titanium (Ti)	2021/12/28	<2.0		ug/L	
			Dissolved Uranium (U)	2021/12/28	<0.10		ug/L	
			Dissolved Vanadium (V)	2021/12/28	<2.0		ug/L	
			Dissolved Zinc (Zn)	2021/12/28	<5.0		ug/L	
7756096	MLB	RPD	Dissolved Aluminum (Al)	2021/12/29	1.3		%	20
			Dissolved Antimony (Sb)	2021/12/29	NC		%	20
			Dissolved Arsenic (As)	2021/12/29	NC		%	20
			Dissolved Barium (Ba)	2021/12/29	0.39		%	20
			Dissolved Beryllium (Be)	2021/12/29	NC		%	20
			Dissolved Bismuth (Bi)	2021/12/29	NC		%	20
			Dissolved Boron (B)	2021/12/29	1.2		%	20
			Dissolved Cadmium (Cd)	2021/12/29	NC		%	20
			Dissolved Calcium (Ca)	2021/12/29	1.1		%	20
			Dissolved Chromium (Cr)	2021/12/29	NC		%	20
			Dissolved Cobalt (Co)	2021/12/29	0.52		%	20



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VERITAS

Bureau Veritas Job #: C1Z7283

Report Date: 2022/01/27

Anaconda Mining Inc

Site Location: GOLDBORO

Your P.O. #: 0267

### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Copper (Cu)	2021/12/29	NC		%	20
			Dissolved Iron (Fe)	2021/12/29	1.3		%	20
			Dissolved Lead (Pb)	2021/12/29	NC		%	20
			Dissolved Magnesium (Mg)	2021/12/29	2.4		%	20
			Dissolved Manganese (Mn)	2021/12/29	1.1		%	20
			Dissolved Molybdenum (Mo)	2021/12/29	0.91		%	20
			Dissolved Nickel (Ni)	2021/12/29	NC		%	20
			Dissolved Phosphorus (P)	2021/12/29	NC		%	20
			Dissolved Potassium (K)	2021/12/29	1.1		%	20
			Dissolved Selenium (Se)	2021/12/29	NC		%	20
			Dissolved Silver (Ag)	2021/12/29	NC		%	20
			Dissolved Sodium (Na)	2021/12/29	1.5		%	20
			Dissolved Strontium (Sr)	2021/12/29	0.20		%	20
			Dissolved Thallium (Tl)	2021/12/29	NC		%	20
			Dissolved Tin (Sn)	2021/12/29	NC		%	20
			Dissolved Titanium (Ti)	2021/12/29	NC		%	20
			Dissolved Uranium (U)	2021/12/29	0.10		%	20
			Dissolved Vanadium (V)	2021/12/29	NC		%	20
			Dissolved Zinc (Zn)	2021/12/29	NC		%	20
7756241	MLB	Matrix Spike	Dissolved Aluminum (Al)	2021/12/28		96	%	80 - 120
			Dissolved Antimony (Sb)	2021/12/28		98	%	80 - 120
			Dissolved Arsenic (As)	2021/12/28		93	%	80 - 120
			Dissolved Barium (Ba)	2021/12/28		92	%	80 - 120
			Dissolved Beryllium (Be)	2021/12/28		95	%	80 - 120
			Dissolved Bismuth (Bi)	2021/12/28		92	%	80 - 120
			Dissolved Boron (B)	2021/12/28		95	%	80 - 120
			Dissolved Cadmium (Cd)	2021/12/28		93	%	80 - 120
			Dissolved Calcium (Ca)	2021/12/28		NC	%	80 - 120
			Dissolved Chromium (Cr)	2021/12/28		93	%	80 - 120
			Dissolved Cobalt (Co)	2021/12/28		93	%	80 - 120
			Dissolved Copper (Cu)	2021/12/28		93	%	80 - 120
			Dissolved Iron (Fe)	2021/12/28		99	%	80 - 120
			Dissolved Lead (Pb)	2021/12/28		93	%	80 - 120
			Dissolved Magnesium (Mg)	2021/12/28		NC	%	80 - 120
			Dissolved Manganese (Mn)	2021/12/28		NC	%	80 - 120
			Dissolved Molybdenum (Mo)	2021/12/28		100	%	80 - 120
			Dissolved Nickel (Ni)	2021/12/28		94	%	80 - 120
			Dissolved Phosphorus (P)	2021/12/28		103	%	80 - 120
			Dissolved Potassium (K)	2021/12/28		97	%	80 - 120
			Dissolved Selenium (Se)	2021/12/28		97	%	80 - 120
			Dissolved Silver (Ag)	2021/12/28		95	%	80 - 120
			Dissolved Sodium (Na)	2021/12/28		NC	%	80 - 120
			Dissolved Strontium (Sr)	2021/12/28		NC	%	80 - 120
			Dissolved Thallium (Tl)	2021/12/28		93	%	80 - 120
			Dissolved Tin (Sn)	2021/12/28		97	%	80 - 120
			Dissolved Titanium (Ti)	2021/12/28		98	%	80 - 120
			Dissolved Uranium (U)	2021/12/28		104	%	80 - 120
			Dissolved Vanadium (V)	2021/12/28		98	%	80 - 120
			Dissolved Zinc (Zn)	2021/12/28		94	%	80 - 120
7756241	MLB	Spiked Blank	Dissolved Aluminum (Al)	2021/12/28		101	%	80 - 120
			Dissolved Antimony (Sb)	2021/12/28		96	%	80 - 120
			Dissolved Arsenic (As)	2021/12/28		93	%	80 - 120
			Dissolved Barium (Ba)	2021/12/28		95	%	80 - 120
			Dissolved Beryllium (Be)	2021/12/28		96	%	80 - 120



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283

Report Date: 2022/01/27

Anaconda Mining Inc

Site Location: GOLDBORO

Your P.O. #: 0267

### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Bismuth (Bi)	2021/12/28		96	%	80 - 120
			Dissolved Boron (B)	2021/12/28		96	%	80 - 120
			Dissolved Cadmium (Cd)	2021/12/28		94	%	80 - 120
			Dissolved Calcium (Ca)	2021/12/28		96	%	80 - 120
			Dissolved Chromium (Cr)	2021/12/28		97	%	80 - 120
			Dissolved Cobalt (Co)	2021/12/28		98	%	80 - 120
			Dissolved Copper (Cu)	2021/12/28		100	%	80 - 120
			Dissolved Iron (Fe)	2021/12/28		102	%	80 - 120
			Dissolved Lead (Pb)	2021/12/28		95	%	80 - 120
			Dissolved Magnesium (Mg)	2021/12/28		106	%	80 - 120
			Dissolved Manganese (Mn)	2021/12/28		97	%	80 - 120
			Dissolved Molybdenum (Mo)	2021/12/28		98	%	80 - 120
			Dissolved Nickel (Ni)	2021/12/28		100	%	80 - 120
			Dissolved Phosphorus (P)	2021/12/28		102	%	80 - 120
			Dissolved Potassium (K)	2021/12/28		99	%	80 - 120
			Dissolved Selenium (Se)	2021/12/28		98	%	80 - 120
			Dissolved Silver (Ag)	2021/12/28		96	%	80 - 120
			Dissolved Sodium (Na)	2021/12/28		100	%	80 - 120
			Dissolved Strontium (Sr)	2021/12/28		92	%	80 - 120
			Dissolved Thallium (Tl)	2021/12/28		96	%	80 - 120
			Dissolved Tin (Sn)	2021/12/28		95	%	80 - 120
			Dissolved Titanium (Ti)	2021/12/28		99	%	80 - 120
			Dissolved Uranium (U)	2021/12/28		103	%	80 - 120
			Dissolved Vanadium (V)	2021/12/28		100	%	80 - 120
			Dissolved Zinc (Zn)	2021/12/28		100	%	80 - 120
7756241	MLB	Method Blank	Dissolved Aluminum (Al)	2021/12/28	<5.0		ug/L	
			Dissolved Antimony (Sb)	2021/12/28	<1.0		ug/L	
			Dissolved Arsenic (As)	2021/12/28	<1.0		ug/L	
			Dissolved Barium (Ba)	2021/12/28	<1.0		ug/L	
			Dissolved Beryllium (Be)	2021/12/28	<0.10		ug/L	
			Dissolved Bismuth (Bi)	2021/12/28	<2.0		ug/L	
			Dissolved Boron (B)	2021/12/28	<50		ug/L	
			Dissolved Cadmium (Cd)	2021/12/28	<0.010		ug/L	
			Dissolved Calcium (Ca)	2021/12/28	<100		ug/L	
			Dissolved Chromium (Cr)	2021/12/28	<1.0		ug/L	
			Dissolved Cobalt (Co)	2021/12/28	<0.40		ug/L	
			Dissolved Copper (Cu)	2021/12/28	<0.50		ug/L	
			Dissolved Iron (Fe)	2021/12/28	<50		ug/L	
			Dissolved Lead (Pb)	2021/12/28	<0.50		ug/L	
			Dissolved Magnesium (Mg)	2021/12/28	<100		ug/L	
			Dissolved Manganese (Mn)	2021/12/28	<2.0		ug/L	
			Dissolved Molybdenum (Mo)	2021/12/28	<2.0		ug/L	
			Dissolved Nickel (Ni)	2021/12/28	<2.0		ug/L	
			Dissolved Phosphorus (P)	2021/12/28	<100		ug/L	
			Dissolved Potassium (K)	2021/12/28	<100		ug/L	
			Dissolved Selenium (Se)	2021/12/28	<0.50		ug/L	
			Dissolved Silver (Ag)	2021/12/28	<0.10		ug/L	
			Dissolved Sodium (Na)	2021/12/28	<100		ug/L	
			Dissolved Strontium (Sr)	2021/12/28	<2.0		ug/L	
			Dissolved Thallium (Tl)	2021/12/28	<0.10		ug/L	
			Dissolved Tin (Sn)	2021/12/28	<2.0		ug/L	
			Dissolved Titanium (Ti)	2021/12/28	<2.0		ug/L	
			Dissolved Uranium (U)	2021/12/28	<0.10		ug/L	
			Dissolved Vanadium (V)	2021/12/28	<2.0		ug/L	



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7756241	MLB	RPD	Dissolved Zinc (Zn)	2021/12/28	<5.0		ug/L	
			Dissolved Aluminum (Al)	2021/12/28	0.88		%	20
			Dissolved Antimony (Sb)	2021/12/28	NC		%	20
			Dissolved Arsenic (As)	2021/12/28	NC		%	20
			Dissolved Barium (Ba)	2021/12/28	0.33		%	20
			Dissolved Beryllium (Be)	2021/12/28	NC		%	20
			Dissolved Bismuth (Bi)	2021/12/28	NC		%	20
			Dissolved Boron (B)	2021/12/28	1.3		%	20
			Dissolved Cadmium (Cd)	2021/12/28	0.77		%	20
			Dissolved Calcium (Ca)	2021/12/28	0.22		%	20
			Dissolved Chromium (Cr)	2021/12/28	NC		%	20
			Dissolved Cobalt (Co)	2021/12/28	0.16		%	20
			Dissolved Copper (Cu)	2021/12/28	1.0		%	20
			Dissolved Iron (Fe)	2021/12/28	NC		%	20
			Dissolved Lead (Pb)	2021/12/28	NC		%	20
			Dissolved Magnesium (Mg)	2021/12/28	1.2		%	20
			Dissolved Manganese (Mn)	2021/12/28	0.32		%	20
			Dissolved Molybdenum (Mo)	2021/12/28	NC		%	20
			Dissolved Nickel (Ni)	2021/12/28	0.84		%	20
			Dissolved Phosphorus (P)	2021/12/28	NC		%	20
			Dissolved Potassium (K)	2021/12/28	0.54		%	20
			Dissolved Selenium (Se)	2021/12/28	6.8		%	20
			Dissolved Silver (Ag)	2021/12/28	NC		%	20
			Dissolved Sodium (Na)	2021/12/28	0.88		%	20
Dissolved Strontium (Sr)	2021/12/28	0.088		%	20			
Dissolved Thallium (Tl)	2021/12/28	7.7		%	20			
Dissolved Tin (Sn)	2021/12/28	NC		%	20			
Dissolved Titanium (Ti)	2021/12/28	NC		%	20			
Dissolved Uranium (U)	2021/12/28	NC		%	20			
Dissolved Vanadium (V)	2021/12/28	NC		%	20			
Dissolved Zinc (Zn)	2021/12/28	NC		%	20			
7756783	SHW	Spiked Blank	Conductivity	2021/12/29		100		80 - 120
7756783	SHW	Method Blank	Conductivity	2021/12/29			uS/cm	
					RDL=1.0			
7756783	SHW	RPD	Conductivity	2021/12/29	1.4		%	10
7756784	SHW	Spiked Blank	pH	2021/12/29		100	%	97 - 103
7756784	SHW	RPD	pH	2021/12/29	0.36		%	N/A
7756881	NGI	Matrix Spike	Total Organic Carbon (C)	2021/12/29		97	%	85 - 115
7756881	NGI	Spiked Blank	Total Organic Carbon (C)	2021/12/29		99	%	80 - 120
7756881	NGI	Method Blank	Total Organic Carbon (C)	2021/12/29	<0.50		mg/L	
7756881	NGI	RPD	Total Organic Carbon (C)	2021/12/29	0.12		%	15
7756894	NGI	Matrix Spike	Total Organic Carbon (C)	2021/12/29		97	%	85 - 115
7756894	NGI	Spiked Blank	Total Organic Carbon (C)	2021/12/29		99	%	80 - 120
7756894	NGI	Method Blank	Total Organic Carbon (C)	2021/12/29	<0.50		mg/L	
7756894	NGI	RPD	Total Organic Carbon (C)	2021/12/29	0.50		%	15
7756902	NGI	Matrix Spike	Total Organic Carbon (C)	2021/12/29		97	%	85 - 115
7756902	NGI	Spiked Blank	Total Organic Carbon (C)	2021/12/29		99	%	80 - 120
7756902	NGI	Method Blank	Total Organic Carbon (C)	2021/12/29	<0.50		mg/L	
7756902	NGI	RPD	Total Organic Carbon (C)	2021/12/29	0.65		%	15
7756919	NGI	Matrix Spike	Total Organic Carbon (C)	2021/12/29		98	%	85 - 115
7756919	NGI	Spiked Blank	Total Organic Carbon (C)	2021/12/29		99	%	80 - 120
7756919	NGI	Method Blank	Total Organic Carbon (C)	2021/12/29	<0.50		mg/L	
7756919	NGI	RPD	Total Organic Carbon (C)	2021/12/29	1.0		%	15
7756925	NGI	Matrix Spike	Total Organic Carbon (C)	2021/12/29		96	%	85 - 115





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7756925	NGI	Spiked Blank	Total Organic Carbon (C)	2021/12/29		98	%	80 - 120
7756925	NGI	Method Blank	Total Organic Carbon (C)	2021/12/29	<0.50		mg/L	
7756925	NGI	RPD	Total Organic Carbon (C)	2021/12/29	7.8		%	15
7756980	MCN	Matrix Spike [RKL815-02]	Total Phosphorus	2022/01/05		101	%	80 - 120
7756980	MCN	Spiked Blank	Total Phosphorus	2022/01/05		102	%	80 - 120
7756980	MCN	Method Blank	Total Phosphorus	2022/01/05	<0.020		mg/L	
7756980	MCN	RPD [RKL815-02]	Total Phosphorus	2022/01/05	2.6		%	25
7756983	MCN	Matrix Spike [RKL835-02]	Total Phosphorus	2022/01/05		99	%	80 - 120
7756983	MCN	Spiked Blank	Total Phosphorus	2022/01/05		97	%	80 - 120
7756983	MCN	Method Blank	Total Phosphorus	2022/01/05	<0.020		mg/L	
7756983	MCN	RPD [RKL835-02]	Total Phosphorus	2022/01/05	5.5		%	25
7757278	ZZH	Matrix Spike [RKL815-02]	Total Chemical Oxygen Demand	2021/12/29		105	%	80 - 120
7757278	ZZH	QC Standard	Total Chemical Oxygen Demand	2021/12/29		102	%	80 - 120
7757278	ZZH	Spiked Blank	Total Chemical Oxygen Demand	2021/12/29		102	%	80 - 120
7757278	ZZH	Method Blank	Total Chemical Oxygen Demand	2021/12/29	<20		mg/L	
7757278	ZZH	RPD [RKL815-02]	Total Chemical Oxygen Demand	2021/12/29	NC		%	25
7757283	ZZH	Matrix Spike [RKL835-02]	Total Chemical Oxygen Demand	2021/12/29		98	%	80 - 120
7757283	ZZH	QC Standard	Total Chemical Oxygen Demand	2021/12/29		105	%	80 - 120
7757283	ZZH	Spiked Blank	Total Chemical Oxygen Demand	2021/12/29		104	%	80 - 120
7757283	ZZH	Method Blank	Total Chemical Oxygen Demand	2021/12/29	<20		mg/L	
7757283	ZZH	RPD [RKL835-02]	Total Chemical Oxygen Demand	2021/12/29	0		%	25
7761117	SHW	Spiked Blank	Conductivity	2021/12/31		97	%	80 - 120
7761117	SHW	Method Blank	Conductivity	2021/12/31	1.2, RDL=1.0		uS/cm	
7761117	SHW	RPD	Conductivity	2021/12/31	1.1		%	10
7761118	SHW	Spiked Blank	pH	2021/12/31		100	%	97 - 103
7761118	SHW	RPD	pH	2021/12/31	0.31		%	N/A
7761120	SHW	Spiked Blank	Conductivity	2021/12/31		97	%	80 - 120
7761120	SHW	Method Blank	Conductivity	2021/12/31	1.2, RDL=1.0		uS/cm	
7761120	SHW	RPD [RKL817-04]	Conductivity	2021/12/31	0.49		%	10
7761122	SHW	Spiked Blank	pH	2021/12/31		100	%	97 - 103
7761122	SHW	RPD [RKL817-04]	pH	2021/12/31	0.14		%	N/A
7761281	NGI	Matrix Spike	Dissolved Organic Carbon (C)	2021/12/31		93	%	85 - 115
7761281	NGI	Spiked Blank	Dissolved Organic Carbon (C)	2021/12/31		97	%	80 - 120
7761281	NGI	Method Blank	Dissolved Organic Carbon (C)	2021/12/31	<0.5		mg/L	
7761281	NGI	RPD	Dissolved Organic Carbon (C)	2021/12/31	NC		%	15
7767205	SHW	QC Standard	Turbidity	2022/01/06		104	%	80 - 120
7767205	SHW	Spiked Blank	Turbidity	2022/01/06		105	%	80 - 120
7767205	SHW	Method Blank	Turbidity	2022/01/06	<0.10		NTU	
7767205	SHW	RPD [RKL827-04]	Turbidity	2022/01/06	1.1		%	20
7767218	SHW	QC Standard	Turbidity	2022/01/06		105	%	80 - 120
7767218	SHW	Spiked Blank	Turbidity	2022/01/06		102	%	80 - 120
7767218	SHW	Method Blank	Turbidity	2022/01/06	<0.10		NTU	
7767218	SHW	RPD	Turbidity	2022/01/06	14		%	20
7769485	SHW	QC Standard	Turbidity	2022/01/07		104	%	80 - 120
7769485	SHW	Spiked Blank	Turbidity	2022/01/07		103	%	80 - 120
7769485	SHW	Method Blank	Turbidity	2022/01/07	<0.10		NTU	
7769485	SHW	RPD [RKL806-04]	Turbidity	2022/01/07	4.6		%	20
7770038	MCN	Matrix Spike	Total Alkalinity (Total as CaCO3)	2022/01/08		NC	%	80 - 120
7770038	MCN	Spiked Blank	Total Alkalinity (Total as CaCO3)	2022/01/08		105	%	80 - 120
7770038	MCN	Method Blank	Total Alkalinity (Total as CaCO3)	2022/01/08	<5.0		mg/L	
7770038	MCN	RPD	Total Alkalinity (Total as CaCO3)	2022/01/08	1.6		%	20
7770054	MCN	Matrix Spike	Total Alkalinity (Total as CaCO3)	2022/01/08		NC	%	80 - 120



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7770054	MCN	Spiked Blank	Total Alkalinity (Total as CaCO3)	2022/01/07		106	%	80 - 120
7770054	MCN	Method Blank	Total Alkalinity (Total as CaCO3)	2022/01/07	<5.0		mg/L	
7770054	MCN	RPD	Total Alkalinity (Total as CaCO3)	2022/01/08	11		%	20
7770060	MCN	Matrix Spike	Total Alkalinity (Total as CaCO3)	2022/01/07		99	%	80 - 120
7770060	MCN	Spiked Blank	Total Alkalinity (Total as CaCO3)	2022/01/07		107	%	80 - 120
7770060	MCN	Method Blank	Total Alkalinity (Total as CaCO3)	2022/01/07	<5.0		mg/L	
7770060	MCN	RPD	Total Alkalinity (Total as CaCO3)	2022/01/07	NC		%	20
7771539	MCN	Matrix Spike	Dissolved Chloride (Cl-)	2022/01/07		84	%	80 - 120
7771539	MCN	Spiked Blank	Dissolved Chloride (Cl-)	2022/01/07		91	%	80 - 120
7771539	MCN	Method Blank	Dissolved Chloride (Cl-)	2022/01/07	<1.0		mg/L	
7771539	MCN	RPD	Dissolved Chloride (Cl-)	2022/01/07	0.39		%	20
7771540	MCN	Matrix Spike	Dissolved Sulphate (SO4)	2022/01/07		92	%	80 - 120
7771540	MCN	Spiked Blank	Dissolved Sulphate (SO4)	2022/01/07		103	%	80 - 120
7771540	MCN	Method Blank	Dissolved Sulphate (SO4)	2022/01/07	<2.0		mg/L	
7771540	MCN	RPD	Dissolved Sulphate (SO4)	2022/01/07	1.0		%	20
7771541	MCN	Matrix Spike	Reactive Silica (SiO2)	2022/01/07		NC	%	80 - 120
7771541	MCN	Spiked Blank	Reactive Silica (SiO2)	2022/01/07		93	%	80 - 120
7771541	MCN	Method Blank	Reactive Silica (SiO2)	2022/01/07	<0.50		mg/L	
7771541	MCN	RPD	Reactive Silica (SiO2)	2022/01/07	0.26		%	20
7771542	MCN	Spiked Blank	Colour	2022/01/07		100	%	80 - 120
7771542	MCN	Method Blank	Colour	2022/01/07	<5.0		TCU	
7771542	MCN	RPD	Colour	2022/01/07	NC		%	20
7771543	MCN	Matrix Spike	Orthophosphate (P)	2022/01/07		96	%	80 - 120
7771543	MCN	Spiked Blank	Orthophosphate (P)	2022/01/07		100	%	80 - 120
7771543	MCN	Method Blank	Orthophosphate (P)	2022/01/07	<0.010		mg/L	
7771543	MCN	RPD	Orthophosphate (P)	2022/01/07	NC		%	20
7771544	MCN	Matrix Spike	Nitrate + Nitrite (N)	2022/01/07		123 (4)	%	80 - 120
7771544	MCN	Spiked Blank	Nitrate + Nitrite (N)	2022/01/07		96	%	80 - 120
7771544	MCN	Method Blank	Nitrate + Nitrite (N)	2022/01/07	<0.050		mg/L	
7771544	MCN	RPD	Nitrate + Nitrite (N)	2022/01/07	0.97		%	20
7771545	MCN	Matrix Spike	Nitrite (N)	2022/01/07		95	%	80 - 120
7771545	MCN	Spiked Blank	Nitrite (N)	2022/01/07		99	%	80 - 120
7771545	MCN	Method Blank	Nitrite (N)	2022/01/07	<0.010		mg/L	
7771545	MCN	RPD	Nitrite (N)	2022/01/07	NC		%	20
7771549	MCN	Matrix Spike	Dissolved Chloride (Cl-)	2022/01/07		92	%	80 - 120
7771549	MCN	Spiked Blank	Dissolved Chloride (Cl-)	2022/01/07		91	%	80 - 120
7771549	MCN	Method Blank	Dissolved Chloride (Cl-)	2022/01/07	<1.0		mg/L	
7771549	MCN	RPD	Dissolved Chloride (Cl-)	2022/01/07	1.1		%	20
7771550	MCN	Matrix Spike	Dissolved Sulphate (SO4)	2022/01/07		NC	%	80 - 120
7771550	MCN	Spiked Blank	Dissolved Sulphate (SO4)	2022/01/07		103	%	80 - 120
7771550	MCN	Method Blank	Dissolved Sulphate (SO4)	2022/01/08	<2.0		mg/L	
7771550	MCN	RPD	Dissolved Sulphate (SO4)	2022/01/07	1.6		%	20
7771551	MCN	Matrix Spike	Reactive Silica (SiO2)	2022/01/07		71 (5)	%	80 - 120
7771551	MCN	Spiked Blank	Reactive Silica (SiO2)	2022/01/07		90	%	80 - 120
7771551	MCN	Method Blank	Reactive Silica (SiO2)	2022/01/07	<0.50		mg/L	
7771551	MCN	RPD	Reactive Silica (SiO2)	2022/01/07	48 (6)		%	20
7771552	MCN	Spiked Blank	Colour	2022/01/07		95	%	80 - 120
7771552	MCN	Method Blank	Colour	2022/01/07	<5.0		TCU	
7771552	MCN	RPD	Colour	2022/01/07	5.3		%	20
7771553	MCN	Matrix Spike	Orthophosphate (P)	2022/01/08		95	%	80 - 120
7771553	MCN	Spiked Blank	Orthophosphate (P)	2022/01/08		99	%	80 - 120
7771553	MCN	Method Blank	Orthophosphate (P)	2022/01/08	<0.010		mg/L	
7771553	MCN	RPD	Orthophosphate (P)	2022/01/08	NC		%	20
7771554	MCN	Matrix Spike	Nitrate + Nitrite (N)	2022/01/07		NC	%	80 - 120



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7771554	MCN	Spiked Blank	Nitrate + Nitrite (N)	2022/01/07		96	%	80 - 120
7771554	MCN	Method Blank	Nitrate + Nitrite (N)	2022/01/07	<0.050		mg/L	
7771554	MCN	RPD	Nitrate + Nitrite (N)	2022/01/07	0.47		%	20
7771555	MCN	Matrix Spike	Nitrite (N)	2022/01/07		92	%	80 - 120
7771555	MCN	Spiked Blank	Nitrite (N)	2022/01/07		100	%	80 - 120
7771555	MCN	Method Blank	Nitrite (N)	2022/01/07	<0.010		mg/L	
7771555	MCN	RPD	Nitrite (N)	2022/01/07	3.0		%	20
7771598	MCN	Matrix Spike	Dissolved Chloride (Cl-)	2022/01/07		92	%	80 - 120
7771598	MCN	Spiked Blank	Dissolved Chloride (Cl-)	2022/01/07		90	%	80 - 120
7771598	MCN	Method Blank	Dissolved Chloride (Cl-)	2022/01/07	<1.0		mg/L	
7771598	MCN	RPD	Dissolved Chloride (Cl-)	2022/01/07	0.50		%	20
7771599	MCN	Matrix Spike	Dissolved Sulphate (SO4)	2022/01/07		117	%	80 - 120
7771599	MCN	Spiked Blank	Dissolved Sulphate (SO4)	2022/01/07		103	%	80 - 120
7771599	MCN	Method Blank	Dissolved Sulphate (SO4)	2022/01/08	<2.0		mg/L	
7771599	MCN	RPD	Dissolved Sulphate (SO4)	2022/01/07	NC		%	20
7771600	MCN	Matrix Spike	Reactive Silica (SiO2)	2022/01/07		83	%	80 - 120
7771600	MCN	Spiked Blank	Reactive Silica (SiO2)	2022/01/07		91	%	80 - 120
7771600	MCN	Method Blank	Reactive Silica (SiO2)	2022/01/07	<0.50		mg/L	
7771600	MCN	RPD	Reactive Silica (SiO2)	2022/01/08	0.31		%	20
7771601	MCN	Spiked Blank	Colour	2022/01/17		99	%	80 - 120
7771601	MCN	Method Blank	Colour	2022/01/17	<5.0		TCU	
7771601	MCN	RPD	Colour	2022/01/07	1.2		%	20
7771602	MCN	Matrix Spike	Orthophosphate (P)	2022/01/08		97	%	80 - 120
7771602	MCN	Spiked Blank	Orthophosphate (P)	2022/01/08		100	%	80 - 120
7771602	MCN	Method Blank	Orthophosphate (P)	2022/01/08	<0.010		mg/L	
7771602	MCN	RPD	Orthophosphate (P)	2022/01/08	NC		%	20
7771603	MCN	Matrix Spike	Nitrate + Nitrite (N)	2022/01/07		92	%	80 - 120
7771603	MCN	Spiked Blank	Nitrate + Nitrite (N)	2022/01/07		95	%	80 - 120
7771603	MCN	Method Blank	Nitrate + Nitrite (N)	2022/01/07	<0.050		mg/L	
7771603	MCN	RPD	Nitrate + Nitrite (N)	2022/01/07	NC		%	20
7771604	MCN	Matrix Spike	Nitrite (N)	2022/01/07		81	%	80 - 120
7771604	MCN	Spiked Blank	Nitrite (N)	2022/01/07		100	%	80 - 120
7771604	MCN	Method Blank	Nitrite (N)	2022/01/07	<0.010		mg/L	
7771604	MCN	RPD	Nitrite (N)	2022/01/07	NC		%	20
7772947	FJO	Matrix Spike	Total Mercury (Hg)	2022/01/11		97	%	80 - 120
7772947	FJO	Spiked Blank	Total Mercury (Hg)	2022/01/11		98	%	80 - 120
7772947	FJO	Method Blank	Total Mercury (Hg)	2022/01/11	<0.013		ug/L	
7772947	FJO	RPD	Total Mercury (Hg)	2022/01/11	4.2		%	20
7774771	FJO	Matrix Spike	Dissolved Mercury (Hg)	2022/01/12		91	%	80 - 120
7774771	FJO	Spiked Blank	Dissolved Mercury (Hg)	2022/01/12		101	%	80 - 120
7774771	FJO	Method Blank	Dissolved Mercury (Hg)	2022/01/12	<0.013		ug/L	
7774771	FJO	RPD	Dissolved Mercury (Hg)	2022/01/12	NC (7)		%	20
7774792	FJO	Matrix Spike [RKL805-13]	Dissolved Mercury (Hg)	2022/01/12		87	%	80 - 120
7774792	FJO	Spiked Blank	Dissolved Mercury (Hg)	2022/01/12		104	%	80 - 120
7774792	FJO	Method Blank	Dissolved Mercury (Hg)	2022/01/12	<0.013		ug/L	
7774792	FJO	RPD [RKL804-13]	Dissolved Mercury (Hg)	2022/01/12	12		%	20
7779137	FJO	Matrix Spike [RKL801-12]	Total Mercury (Hg)	2022/01/14		93	%	80 - 120
7779137	FJO	Spiked Blank	Total Mercury (Hg)	2022/01/14		93	%	80 - 120
7779137	FJO	Method Blank	Total Mercury (Hg)	2022/01/14	<0.013		ug/L	
7779137	FJO	RPD [RKL800-12]	Total Mercury (Hg)	2022/01/14	NC		%	20
7779414	FJO	Matrix Spike	Dissolved Mercury (Hg)	2022/01/14		103	%	80 - 120
7779414	FJO	Spiked Blank	Dissolved Mercury (Hg)	2022/01/14		102	%	80 - 120
7779414	FJO	Method Blank	Dissolved Mercury (Hg)	2022/01/14	<0.013		ug/L	
7779414	FJO	RPD	Dissolved Mercury (Hg)	2022/01/14	NC		%	20



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283

Report Date: 2022/01/27

Anaconda Mining Inc

Site Location: GOLDBORO

Your P.O. #: 0267

### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7779426	FJO	Matrix Spike	Total Mercury (Hg)	2022/01/14		102	%	80 - 120
7779426	FJO	Spiked Blank	Total Mercury (Hg)	2022/01/14		105	%	80 - 120
7779426	FJO	Method Blank	Total Mercury (Hg)	2022/01/14	<0.013		ug/L	
7779426	FJO	RPD	Total Mercury (Hg)	2022/01/14	NC		%	20
7779484	FJO	Matrix Spike	Dissolved Mercury (Hg)	2022/01/14		89	%	80 - 120
7779484	FJO	Spiked Blank	Dissolved Mercury (Hg)	2022/01/14		101	%	80 - 120
7779484	FJO	Method Blank	Dissolved Mercury (Hg)	2022/01/14	<0.013		ug/L	
7779484	FJO	RPD	Dissolved Mercury (Hg)	2022/01/14	NC		%	20
7779524	FJO	Matrix Spike [RKL824-12]	Total Mercury (Hg)	2022/01/14		89	%	80 - 120
7779524	FJO	Spiked Blank	Total Mercury (Hg)	2022/01/14		104	%	80 - 120
7779524	FJO	Method Blank	Total Mercury (Hg)	2022/01/14	<0.013		ug/L	
7779524	FJO	RPD	Total Mercury (Hg)	2022/01/14	NC		%	20
7784402	MCN	Spiked Blank	Colour	2022/01/17		99	%	80 - 120
7784402	MCN	Method Blank	Colour	2022/01/17	<5.0		TCU	
7784402	MCN	RPD	Colour	2022/01/17	1.1		%	20
7786495	PBA	Matrix Spike	Dissolved Mercury (Hg)	2022/01/19		97	%	75 - 125
7786495	PBA	Spiked Blank	Dissolved Mercury (Hg)	2022/01/19		100	%	80 - 120
7786495	PBA	Method Blank	Dissolved Mercury (Hg)	2022/01/19	<0.01		ug/L	
7786495	PBA	RPD	Dissolved Mercury (Hg)	2022/01/19	NC		%	20
7790723	GR1	Matrix Spike	Mercury (Hg)	2022/01/24		88	%	75 - 125
7790723	GR1	Spiked Blank	Mercury (Hg)	2022/01/24		91	%	80 - 120
7790723	GR1	Method Blank	Mercury (Hg)	2022/01/24	<0.01		ug/L	
7790723	GR1	RPD	Mercury (Hg)	2022/01/24	NC		%	20
7800707	GR1	Matrix Spike	Dissolved Mercury (Hg)	2022/01/26		102	%	75 - 125
7800707	GR1	Spiked Blank	Dissolved Mercury (Hg)	2022/01/26		104	%	80 - 120
7800707	GR1	Method Blank	Dissolved Mercury (Hg)	2022/01/26	<0.01		ug/L	
7800707	GR1	RPD	Dissolved Mercury (Hg)	2022/01/26	NC		%	20

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) TEH surrogate(s) not within acceptance limits. Samples tested had insufficient volume to repeat the analytical run.

(2) Matrix Spike: results are outside acceptance limit due to probable matrix interference.

(3) Matrix Spike exceeds acceptance limits, probable matrix interference.

(4) Elevated spike recovery due to probable sample matrix interference.

(5) Poor spike recovery due to probable sample matrix interference.

(6) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

(7) Mercury analyzed past recommended hold time.



BUREAU  
VERITAS

Bureau Veritas Job #: C1Z7283  
Report Date: 2022/01/27

Anaconda Mining Inc  
Site Location: GOLDBORO  
Your P.O. #: 0267

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Brad Newman, B.Sc., C.Chem., Scientific Service Specialist

Colleen Acker, B.Sc, Scientific Service Specialist

Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

Rosemarie MacDonald, Scientific Specialist (Organics)



Bureau Veritas Proprietary Software  
Logiciel Propriétaire de Bureau Veritas

Automated Statchk

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

# **Attachment 6**

**Industrial Approval Monitoring Data**

Table 6.1  
 Groundwater Elevation Data  
 Goldboro Mine Bulk Sample Program Anaconda Mining Inc.  
 570 Goldbrook Road, Goldboro, Guysborough County

MW17-01			MW17-02			MW17-03D			MW17-03S			Station #8 Domestic Well		
Reference Elevation (m MASL) = 61.57			Reference Elevation (m MASL) = 56.85			Reference Elevation (m MASL) = 52.24			Reference Elevation (m MASL) = 52.39			Reference Elevation(m MASL) = Not Available		
Date	Depth to Water (m btor)	Groundwater Elevation (m MASL)	Date	Depth to Water (m btor)	Groundwater Elevation (m MASL)	Date	Depth to Water (m btor)	Groundwater Elevation (m MASL)	Date	Depth to Water (m btor)	Groundwater Elevation (m MASL)	Date	Depth to Water (m btor)	Groundwater Elevation (m MASL)
22-Aug-18	4.18	57.39	22-Aug-18	3.56	53.29	22-Aug-18	5.20	47.04	22-Aug-18	4.18	48.21	22-Aug-18	1.84	-
27-Aug-18	4.12	57.45	27-Aug-18	3.52	53.33	27-Aug-18	4.68	47.56	27-Aug-18	5.38	47.01	23-Sep-18	1.44	-
28-Aug-18	4.12	57.45	28-Aug-18	3.52	53.33	28-Aug-18	4.70	47.54	4-Sep-18	4.93	47.46	3-Oct-18	1.40	-
28-Aug-18	4.09	57.48	28-Aug-18	3.14	53.71	28-Aug-18	4.68	47.56	5-Sep-18	4.96	47.43	25-Oct-18	1.00	-
29-Aug-18	4.12	57.45	29-Aug-18	3.13	53.72	29-Aug-18	4.71	47.53	6-Sep-18	4.98	47.41	5-Nov-18	0.98	-
29-Aug-18	4.12	57.45	29-Aug-18	3.13	53.72	29-Aug-18	4.72	47.52	8-Sep-18	5.02	47.37	14-Nov-18	0.95	-
30-Aug-18	4.46	57.11	30-Aug-18	3.50	53.35	30-Aug-18	4.71	47.53	9-Sep-18	5.06	47.33	21-Nov-18	1.30	-
30-Aug-18	4.18	57.39	30-Aug-18	3.52	53.33	30-Aug-18	4.71	47.53	10-Sep-18	5.04	47.35	17-Dec-18	1.60	-
31-Aug-18	4.27	57.3	31-Aug-18	3.10	53.75	31-Aug-18	4.84	47.40	11-Sep-18	5.11	47.28	23-Oct-19	1.41	-
4-Sep-18	4.55	57.02	4-Sep-18	3.14	53.71	5-Sep-18	4.80	47.44	12-Sep-18	5.09	47.30	21-Nov-19	0.87	-
5-Sep-18	4.64	56.93	5-Sep-18	3.15	53.70	6-Sep-18	4.83	47.41	13-Sep-18	5.08	47.31	12-Dec-19	frozen	-
6-Sep-18	4.73	56.84	6-Sep-18	3.13	53.72	6-Sep-18	4.86	47.38	14-Sep-18	5.06	47.33	23-Jan-20	frozen	-
8-Sep-18	4.86	56.71	8-Sep-18	3.18	53.67	9-Sep-18	4.90	47.34	15-Sep-18	5.06	47.33	20-Feb-20	frozen	-
9-Sep-18	4.90	56.67	9-Sep-18	3.20	53.65	10-Sep-18	4.91	47.33	16-Sep-18	5.06	47.33	19-Mar-20	1.01	-
10-Sep-18	5.00	56.57	10-Sep-18	3.22	53.63	11-Sep-18	4.93	47.31	17-Sep-18	5.07	47.32	17-Apr-20	1.01	-
11-Sep-18	5.07	56.5	11-Sep-18	3.22	53.63	12-Sep-18	4.88	47.36	18-Sep-18	5.02	47.37	13-May-20	1.15	-
12-Sep-18	5.13	56.44	12-Sep-18	2.98	53.87	13-Sep-18	4.85	47.39	19-Sep-18	5.02	47.37	10-Jun-20	1.80	-
13-Sep-18	5.17	56.4	13-Sep-18	2.93	53.92	14-Sep-18	4.87	47.37	20-Sep-18	5.02	47.37	8-Jul-20	2.01	-
14-Sep-18	5.20	56.37	14-Sep-18	2.97	53.88	15-Sep-18	4.88	47.36	21-Sep-18	5.02	47.37	5-Aug-20	2.05	-
15-Sep-18	5.22	56.35	15-Sep-18	3.01	53.84	16-Sep-18	4.86	47.38	22-Sep-18	5.04	47.35	2-Sep-20	1.60	-
16-Sep-18	5.22	56.35	16-Sep-18	3.08	53.77	17-Sep-18	4.86	47.38	23-Sep-18	5.07	47.32	28-Sep-20	1.50	-
17-Sep-18	5.24	56.33	17-Sep-18	3.07	53.78	18-Sep-18	4.84	47.40	24-Sep-18	5.10	47.29	26-Oct-20	1.20	-
18-Sep-18	5.24	56.33	18-Sep-18	3.08	53.77	19-Sep-18	4.82	47.42	25-Sep-18	5.15	47.24	23-Nov-20	1.60	-
19-Sep-18	5.29	56.28	19-Sep-18	3.04	53.81	20-Sep-18	4.85	47.39	26-Sep-18	5.16	47.23	21-Dec-20	1.30	-
20-Sep-18	5.34	56.23	20-Sep-18	3.09	53.76	21-Sep-18	4.85	47.39	27-Sep-18	5.15	47.24	18-Jan-21	1.20	-
21-Sep-18	5.37	56.2	21-Sep-18	3.09	53.76	22-Sep-18	4.83	47.41	28-Sep-18	5.08	47.31	9-Feb-21	frozen	-
22-Sep-18	5.50	56.07	22-Sep-18	3.11	53.74	23-Sep-18	4.87	47.37	29-Sep-18	4.63	47.76	8-Mar-21	1.77	-
23-Sep-18	5.48	56.09	23-Sep-18	2.94	53.91	24-Sep-18	4.90	47.34	30-Sep-18	4.72	47.67	5-Apr-21	1.30	-
24-Sep-18	5.52	56.05	24-Sep-18	3.17	53.68	25-Sep-18	4.93	47.31	1-Oct-18	4.79	47.60	7-May-21	1.40	-
25-Sep-18	5.58	55.99	25-Sep-18	3.17	53.68	26-Sep-18	4.94	47.30	2-Oct-18	4.88	47.51	28-Jun-21	1.85	-
26-Sep-18	5.63	55.94	26-Sep-18	3.15	53.70	27-Sep-18	4.95	47.29	3-Oct-18	4.92	47.47	27-Jul-21	1.67	-
27-Sep-18	5.69	55.88	27-Sep-18	3.08	53.77	28-Sep-18	4.83	47.41	4-Oct-18	4.51	47.88	23-Aug-21	1.40	-
28-Sep-18	5.76	55.81	28-Sep-18	2.90	53.95	29-Sep-18	4.58	47.66	5-Oct-18	4.56	47.83	20-Sep-21	1.29	-
29-Sep-18	5.80	55.77	29-Sep-18	2.69	54.16	30-Sep-18	4.56	47.68	6-Oct-18	4.67	47.72	4-Oct-21	1.42	-
30-Sep-18	5.80	55.77	30-Sep-18	2.75	54.10	1-Oct-18	4.63	47.61	7-Oct-18	4.76	47.63	1-Nov-21	0.96	-
1-Oct-18	5.69	55.88	1-Oct-18	2.82	54.03	2-Oct-18	4.72	47.52	8-Oct-18	4.84	47.55	29-Nov-21	1.18	-
2-Oct-18	5.58	55.99	2-Oct-18	2.87	53.98	3-Oct-18	4.74	47.50	9-Oct-18	4.88	47.51	22-Dec-21	frozen	-
3-Oct-18	5.87	55.7	3-Oct-18	2.87	53.98	4-Oct-18	4.43	47.81	10-Oct-18	4.95	47.44			
4-Oct-18	5.84	55.73	4-Oct-18	2.41	54.44	5-Oct-18	4.46	47.78	12-Oct-18	4.54	47.85			
5-Oct-18	5.71	55.86	5-Oct-18	2.52	54.33	6-Oct-18	4.55	47.69	13-Oct-18	4.25	48.14			
6-Oct-18	5.65	55.92	6-Oct-18	2.62	54.23	7-Oct-18	4.62	47.62	14-Oct-18	4.36	48.03			
7-Oct-18	5.56	56.01	7-Oct-18	2.68	54.17	8-Oct-18	4.68	47.56	15-Oct-18	4.48	47.91			
8-Oct-18	5.73	55.84	8-Oct-18	2.63	54.22	9-Oct-18	4.71	47.53	17-Oct-18	4.32	48.07			
9-Oct-18	5.78	55.79	9-Oct-18	2.75	54.10	10-Oct-18	4.74	47.50	18-Oct-18	4.42	47.97			
10-Oct-18	5.86	55.71	10-Oct-18	2.70	54.15	12-Oct-18	3.98	48.26	19-Oct-18	4.95	47.44			
11-Oct-18	5.60	55.97	12-Oct-18	2.19	54.66	13-Oct-18	4.20	48.04	20-Oct-18	4.60	47.79			

Table 6.1  
Groundwater Elevation Data  
Goldboro Mine Bulk Sample Program Anaconda Mining Inc.  
570 Goldbrook Road, Goldboro, Guysborough County

MW17-01			MW17-02			MW17-03D			MW17-03S			Station #8 Domestic Well		
Reference Elevation (m MASL) = 61.57			Reference Elevation (m MASL) = 56.85			Reference Elevation (m MASL) = 52.24			Reference Elevation (m MASL) = 52.39			Reference Elevation(m MASL) =		Not Available
Date	Depth to Water (m btor)	Groundwater Elevation (m MASL)	Date	Depth to Water (m btor)	Groundwater Elevation (m MASL)	Date	Depth to Water (m btor)	Groundwater Elevation (m MASL)	Date	Depth to Water (m btor)	Groundwater Elevation (m MASL)	Date	Depth to Water (m btor)	Groundwater Elevation (m MASL)
12-Oct-18	5.04	56.53	13-Oct-18	2.08	54.77	14-Oct-18	4.27	47.97	21-Oct-18	3.97	48.42			
13-Oct-18	4.74	56.83	14-Oct-18	2.21	54.64	15-Oct-18	4.37	47.87	22-Oct-18	4.23	48.16			
14-Oct-18	5.51	56.06	15-Oct-18	2.33	54.52	17-Oct-18	4.25	47.99	23-Oct-18	4.22	48.17			
15-Oct-18	5.41	56.16	17-Oct-18	2.16	54.69	18-Oct-18	4.32	47.92	24-Oct-18	4.06	48.33			
16-Oct-18	5.30	56.27	18-Oct-18	2.21	54.64	19-Oct-18	4.42	47.82	25-Oct-18	4.04	48.35			
17-Oct-18	5.26	56.31	19-Oct-18	2.40	54.45	20-Oct-18	4.47	47.77	26-Oct-18	4.23	48.16			
18-Oct-18	5.23	56.34	20-Oct-18	2.45	54.40	21-Oct-18	4.14	48.10	27-Oct-18	4.30	48.09			
19-Oct-18	5.31	56.26	21-Oct-18	1.88	54.97	22-Oct-18	4.12	48.12	28-Oct-18	3.89	48.50			
20-Oct-18	5.38	56.19	22-Oct-18	2.01	54.84	23-Oct-18	4.22	48.02	29-Oct-18	3.97	48.42			
21-Oct-18	5.31	56.26	23-Oct-18	2.16	54.69	24-Oct-18	4.20	48.04	30-Oct-18	4.04	48.35			
22-Oct-18	5.12	56.45	24-Oct-18	1.88	54.97	25-Oct-18	3.97	48.27	31-Oct-18	4.10	48.29			
23-Oct-18	5.06	56.51	25-Oct-18	1.82	55.03	26-Oct-18	4.10	48.14	2-Nov-18	4.27	48.12			
24-Oct-18	5.08	56.49	26-Oct-18	2.02	54.83	27-Oct-18	4.20	48.04	3-Nov-18	3.97	48.42			
25-Oct-18	4.81	56.76	27-Oct-18	2.18	54.67	28-Oct-18	3.97	48.27	4-Nov-18	4.06	48.33			
26-Oct-18	4.76	56.81	28-Oct-18	1.72	55.13	29-Oct-18	3.70	48.54	5-Nov-18	4.16	48.23			
27-Oct-18	4.86	56.71	29-Oct-18	1.75	55.10	30-Oct-18	3.85	48.39	6-Nov-18	4.12	48.27			
29-Oct-18	4.02	57.55	30-Oct-18	1.85	55.00	31-Oct-18	3.94	48.30	7-Nov-18	3.94	48.45			
30-Oct-18	4.10	57.47	31-Oct-18	1.94	54.91	2-Nov-18	4.11	48.13	9-Nov-18	4.14	48.25			
31-Oct-18	4.30	57.27	2-Nov-18	2.18	54.67	3-Nov-18	3.98	48.26	10-Nov-18	4.06	48.33			
1-Nov-18	4.53	57.04	3-Nov-18	2.19	54.66	4-Nov-18	3.95	48.29	11-Nov-18	4.03	48.36			
2-Nov-18	4.77	56.8	4-Nov-18	2.00	54.85	5-Nov-18	4.03	48.21	12-Nov-18	4.09	48.30			
3-Nov-18	4.79	56.78	5-Nov-18	2.18	54.67	6-Nov-18	3.98	48.26	13-Nov-18	3.99	48.40			
4-Nov-18	4.70	56.87	6-Nov-18	2.09	54.76	7-Nov-18	3.96	48.28	15-Nov-18	4.00	48.39			
5-Nov-18	4.80	56.77	7-Nov-18	1.14	55.71	9-Nov-18	4.03	48.21	17-Nov-18	4.00	48.39			
6-Nov-18	4.95	56.62	9-Nov-18	2.19	54.66	10-Nov-18	4.04	48.20	18-Nov-18	4.06	48.33			
7-Nov-18	4.95	56.62	10-Nov-18	1.96	54.89	11-Nov-18	3.93	48.31	21-Nov-18	4.25	48.14			
9-Nov-18	4.88	56.69	11-Nov-18	1.99	54.86	12-Nov-18	4.01	48.23	23-Nov-18	4.32	48.07			
10-Nov-18	4.95	56.62	12-Nov-18	2.20	54.65	14-Nov-18	3.94	48.30	24-Nov-18	4.37	48.02			
11-Nov-18	4.87	56.7	14-Nov-18	1.90	54.95	15-Nov-18	3.94	48.30	25-Nov-18	4.35	48.04			
12-Nov-18	4.85	56.72	17-Nov-18	1.93	54.92	17-Nov-18	3.90	48.34	13-Dec-18	4.48	47.91			
14-Nov-18	4.97	56.6	18-Nov-18	2.07	54.78	18-Nov-18	3.92	48.32	28-Dec-18	4.51	47.88			
15-Nov-18	4.82	56.75	21-Nov-18	2.20	54.65	21-Nov-18	4.12	48.12	12-Jan-19	4.34	48.05			
18-Nov-18	4.84	56.73	23-Nov-18	2.46	54.39	23-Nov-18	4.20	48.04	16-Jan-19	4.62	47.77			
21-Nov-18	5.18	56.39	24-Nov-18	2.54	54.31	24-Nov-18	4.24	48.00	23-Jan-19	4.64	47.75			
23-Nov-18	5.33	56.24	25-Nov-18	2.58	54.27	25-Nov-18	4.25	47.99	23-Oct-19	4.84	47.55			
24-Nov-18	5.40	56.17	13-Dec-18	2.69	54.16	13-Dec-18	4.35	47.89	21-Nov-19	4.16	48.23			
25-Nov-18	5.50	56.07	28-Dec-18	2.53	54.32	28-Dec-18	4.40	47.84	12-Dec-19	4.80	47.59			
13-Dec-18	5.78	55.79	11-Jan-19	2.46	54.39	12-Jan-19	4.25	47.99	23-Jan-20	4.71	47.68			
28-Dec-18	5.76	55.81	16-Jan-19	2.79	54.06	16-Jan-19	4.49	47.75	20-Feb-20	4.22	48.17			
12-Jan-19	5.91	55.66	23-Jan-19	2.63	54.22	23-Jan-19	4.45	47.79	19-Mar-20	4.10	48.29			
16-Jan-19	6.12	55.45	23-Oct-19	2.80	54.05	23-Oct-19	4.68	47.56	17-Apr-20	4.05	48.34			
23-Jan-19	6.24	55.33	21-Nov-19	1.98	54.87	21-Nov-19	4.18	48.06	13-May-20	4.17	48.22			
23-Oct-19	3.54	58.03	11-Dec-19	2.30	54.55	12-Dec-19	4.60	47.64	10-Jun-20	4.36	48.03			
21-Nov-19	2.23	59.34	23-Jan-20	2.19	54.66	23-Jan-20	4.55	47.69	8-Jul-20	4.84	47.55			
12-Dec-19	2.30	59.27	20-Feb-20	2.21	54.64	20-Feb-20	4.21	48.03	5-Aug-20	3.91	48.48			
23-Jan-20	3.65	57.92	19-Mar-20	1.98	54.87	19-Mar-20	4.02	48.22	2-Sep-20	4.89	47.50			
20-Feb-20	2.03	59.54	17-Apr-20	2.19	54.66	17-Apr-20	3.85	48.39	28-Sep-20	4.91	47.48			
19-Mar-20	2.30	59.27	13-May-20	2.36	54.49	13-May-20	3.95	48.29	26-Oct-20	4.81	47.58			
17-Apr-20	2.26	59.31	10-Jun-20	2.74	54.11	10-Jun-20	4.50	47.74	23-Nov-20	4.77	47.62			
13-May-20	2.65	58.92	8-Jul-20	3.02	53.83	8-Jul-20	4.65	47.59	21-Dec-20	4.71	47.68			
10-Jun-20	3.41	58.16	5-Aug-20	3.09	53.76	5-Aug-20	4.71	47.53	18-Jan-21	4.28	48.11			
8-Jul-20	4.07	57.5	2-Sep-20	5.05	51.80	2-Sep-20	4.62	47.62	9-Feb-21	4.37	48.02			
5-Aug-20	4.13	57.44	28-Sep-20	2.94	53.91	28-Sep-20	4.73	47.51	8-Mar-21	4.42	47.97			
2-Sep-20	4.43	57.14	26-Oct-20	3.01	53.84	26-Oct-20	4.65	47.59	5-Apr-21	3.79	48.60			
28-Sep-20	3.78	57.79	23-Nov-20	1.44	55.41	23-Nov-20	5.80	46.44	7-May-21	4.35	48.04			



Table 6.1  
 Groundwater Elevation Data  
 Goldboro Mine Bulk Sample Program Anaconda Mining Inc.  
 570 Goldbrook Road, Goldboro, Guysborough County

MW17-01			MW17-02			MW17-03D			MW17-03S			Station #8 Domestic Well		
Reference Elevation (m MASL) = 61.57			Reference Elevation (m MASL) = 56.85			Reference Elevation (m MASL) = 52.24			Reference Elevation (m MASL) = 52.39			Reference Elevation(m MASL) =		Not Available
Date	Depth to Water (m btor)	Groundwater Elevation (m MASL)	Date	Depth to Water (m btor)	Groundwater Elevation (m MASL)	Date	Depth to Water (m btor)	Groundwater Elevation (m MASL)	Date	Depth to Water (m btor)	Groundwater Elevation (m MASL)	Date	Depth to Water (m btor)	Groundwater Elevation (m MASL)
26-Oct-20	3.80	57.77	21-Dec-20	1.42	55.43	21-Dec-20	5.00	47.24	28-Jun-21	4.195	48.195			
23-Nov-20	3.61	57.96	18-Jan-21	2.13	54.72	18-Jan-21	4.12	48.12	27-Jul-21	5.083	47.307			
21-Dec-20	3.20	58.37	9-Feb-21	2.28	54.57	9-Feb-21	4.19	48.05	23-Aug-21	4.83	47.56			
18-Jan-21	2.47	59.1	8-Mar-21	2.54	54.31	8-Mar-21	4.23	48.01	20-Sep-21	4.57	47.82			
9-Feb-21	2.65	58.925	5-Apr-21	1.75	55.10	5-Apr-21	2.41	49.83	4-Oct-21	4.565	47.825			
8-Mar-21	3.10	58.475	7-May-21	2.53	54.33	7-May-21	4.20	48.04	1-Nov-21	4.28	48.11			
5-Apr-21	1.77	59.8	28-Jun-21	3.13	53.72	28-Jun-21	4.74	47.5	29-Nov-21	4.285	48.105			
7-May-21	3.36	58.215	27-Jul-21	3.13	53.72	27-Jul-21	4.305	47.935	22-Dec-21	4.45	47.94			
28-Jun-21	4.23	57.34	23-Aug-21	2.96	53.89	23-Aug-21	4.7	47.54						
27-Jul-21	4.265	57.305	20-Sep-21	2.665	54.185	20-Sep-21	4.465	47.775						
23-Aug-21	4.06	57.51	4-Oct-21	2.425	54.425	4-Oct-21	4.365	47.875						
20-Sep-21	3.867	57.703	1-Nov-21	2.365	54.485	1-Nov-21	4.39	47.85						
4-Oct-21	3.165	58.405	29-Nov-21	2.335	54.515	29-Nov-21	4.115	48.125						
1-Nov-21	3.395	58.175	22-Dec-21	2.536	54.314	22-Dec-21	4.451	47.789						
29-Nov-21	2.698	58.872												
22-Dec-21	2.936	58.634												

Table 6.2  
 Domestic Well Groundwater Quality Data  
 Goldboro Mine Bulk Sample Program Anaconda Mining Inc.  
 570 Goldbrook Road, Goldboro, Guysborough County

Sampling Date		8/23/2018			9/23/2018	10/29/2018	12/17/2018	12/12/2019	5/6/2019	3/19/2020	6/10/2020	9/2/2020	11/23/2020	11/23/2020	2/9/2021	6/28/2021	9/20/2021	11/29/2021	2021-11-29-Duplicate
Calculated Parameters	UNITS		95th Percentile	CDWQG										GW DUP					GW DUP
Anion Sum	me/L	3.6	-	-	4.08	4.22	4.34	7.98	3.79	7.43	5.55	6.74	4.82	4.52	5.56	3.66	4.10	3.29	3.31
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	19	-	-	17	15	11	12	11	8.0	7.9	8.3	9.1	11	9.3	13	11	14	15
Calculated TDS	mg/L	210	-	-	230	240	250	460	220	430	330	400	300	280	330	230	250	210	210
Carb. Alkalinity (calc. as CaCO3)	mg/L	<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
Cation Sum	me/L	3.13	-	-	3.22	3.72	4.01	7.47	3.53	6.75	5.55	6.60	5.21	5.01	5.26	4.15	4.12	3.47	3.51
Hardness (CaCO3)	mg/L	30	-	-	30	31	30	47	29	41	34	38	36	34	33	29	26	25	25
Ion Balance (% Difference)	%	6.98	-	-	11.8	6.3	3.95	3.30	3.55	4.80	0	1.05	3.89	5.14	2.77	6.27	0.240	2.66	2.93
Langelier Index (@ 20C)	N/A	-3	-	-	-2.84	-3.01	-3.15	-3.18	-3	-3.4	-3.75	-3.32	-3.25	-3.27	-3.26	-3.16	-3.32	-3.12	-3.03
Langelier Index (@ 4C)	N/A	-3.25	-	-	-3.09	-3.26	-3.4	-3.43	-3.25	-3.65	-3.99	-3.57	-3.50	-3.52	-3.51	-3.41	-3.57	-3.37	-3.28
Nitrate (N)	mg/L	0.64	0.64	10	0.62	0.48	0.69	0.44	0.56	0.43	0.42	0.43	0.58	0.55	0.55	0.32	0.44	0.4	0.4
Saturation pH (@ 20C)	N/A	9.08	-	-	9.15	9.18	9.34	9.17	9.38	9.40	9.47	9.40	9.36	9.31	9.4	9.27	9.40	9.3	9.26
Saturation pH (@ 4C)	N/A	9.33	-	-	9.4	9.43	9.59	9.42	9.63	9.64	9.71	9.65	9.61	9.56	9.65	9.52	9.65	9.55	9.51
<b>Inorganics</b>																			
Total Alkalinity (Total as CaCO3)	mg/L	19	-	-	17	15	11	12	11	8	7.9	8.3	9.1	11	9.3	13	11	14	15
Dissolved Chloride (Cl-)	mg/L	100	-	-	120	130	140	260	120	250	180	220	150	140	180	110	130	96	96
Colour	TCU	<5.0	-	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Nitrate + Nitrite (N)	mg/L	0.64	-	-	0.62	0.48	0.69	0.44	0.56	0.43	0.42	0.43	0.58	0.55	0.55	0.32	0.44	0.4	0.4
Nitrite (N)	mg/L	<0.010	-	1	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrogen (Ammonia Nitrogen)	mg/L	<0.010	-	-	<0.010	<0.050	<0.050	0.054	<0.050	<0.050	0.06	0.074	<0.050	0.28	<0.050	<0.050	<0.050	<0.050	<0.050
Total Organic Carbon (C)	mg/L	0.73	-	-	0.63	1	0.73	0.59	0.62	0.54	0.57	<0.50	0.66	0.60	0.55	0.67	<0.50	0.76	0.77
Orthophosphate (P)	mg/L	<0.010	-	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
pH	pH	6.08	-	-	6.31	6.17	6.19	5.99	6.38	6.00	5.72	6.08	6.10	6.05	6.13	6.11	6.08	6.18	6.23
Reactive Silica (SiO2)	mg/L	7.9	-	-	7.6	7	7.1	7.1	6.6	7.1	6.9	7.5	7.7	7.4	7	7.0	7.5	7.1	7.1
Total Suspended Solids	mg/L	<1.0	-	-	<1.0	<1.0	<2.0	1.0	-	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	1.4	1.0	<1.0	<1.0
Dissolved Sulphate (SO4)	mg/L	12	-	-	12	9.7	11	14	10	12	12	10	12	10	9.2	13	11	13	12
Turbidity	NTU	0.2	-	-	0.3	0.16	0.15	0.24	<0.10	<0.10	0.16	0.28	0.71	2.4	0.14	0.41	0.22	<0.10	<0.10
Conductivity	uS/cm	390	-	-	490	470	500	960	430	840	690	800	600	590	630	470	500	400	400

Table 6.2  
 Domestic Well Groundwater Quality Data  
 Goldboro Mine Bulk Sample Program Anaconda Mining Inc.  
 570 Goldbrook Road, Goldboro, Guysborough County

Sampling Date		8/23/2018			9/23/2018	10/29/2018	12/17/2018	12/12/2019	5/6/2019	3/19/2020	6/10/2020	9/2/2020	11/23/2020	11/23/2020	2/9/2021	6/28/2021	9/20/2021	11/29/2021	2021-11-29-Duplicate
Calculated Parameters	UNITS		95th Percentile	CDWQG										GW DUP					GW DUP
<b>Metals</b>																			
Dissolved Aluminum (Al)	ug/L	110	-	-	110	140	180	195	333	465	384	200	115	33.6	335	151	124	111	105
Dissolved Antimony (Sb)	ug/L	<1.0	-	6	<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
Dissolved Arsenic (As)	ug/L	<1.0	-	10	<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
Dissolved Barium (Ba)	ug/L	59	59	1,000	58	69	69	166	6.52	148	112	139	111	101	104	79.4	76.4	56	54.5
Dissolved Beryllium (Be)	ug/L	<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	0.13	<1.0	<1.0
Dissolved Bismuth (Bi)	ug/L	<2.0	-	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Boron (B)	ug/L	<50	-	5,000	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Dissolved Cadmium (Cd)	ug/L	0.072	0.072	5	0.073	0.096	0.11	0.19	0.081	0.185	0.136	0.157	0.130	0.121	0.129	0.098	0.096	0.074	0.072
Dissolved Calcium (Ca)	ug/L	11000	-	-	11000	11000	10000	16500	9910	14100	11600	13200	12700	11700	11500	10100	9150	8610	8630
Dissolved Chromium (Cr)	ug/L	<1.0	-	50	<1.0	<1.0	<1.0	<1.0	1.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Cobalt (Co)	ug/L	0.53	-	-	0.6	0.75	1.1	1.42	1.03	1.48	1.46	0.94	1.21	1.10	1.43	1.17	0.63	0.88	0.89
Dissolved Copper (Cu)	ug/L	53	53	2000	610	67	25	674	9.20	11.9	26.1	40.3	24.6	45.8	9.71	70	11.5	24.4	24.8
Dissolved Iron (Fe)	ug/L	<50	-	-	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Dissolved Lead (Pb)	ug/L	<0.50	-	5	0.84	<0.50	<0.50	2.84	<0.50	<0.50	0.91	<0.5	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Magnesium (Mg)	ug/L	840	-	-	860	850	990	1380	1020	1290	1160	1140	1090	1080	1170	1000	850	810	800
Dissolved Manganese (Mn)	ug/L	120	120	120	120	140	160	296	192	317	257	252	203	192	216	194	177	123	123
Dissolved Molybdenum (Mo)	ug/L	<2.0	-	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Nickel (Ni)	ug/L	<2.0	-	-	<2.0	<2.0	<2.0	3.6	2	2.3	3	2.1	<2.0	<2.0	<2.0	2.5	<2.0	<2.0	<2.0
Dissolved Phosphorus (P)	ug/L	<100	-	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Dissolved Potassium (K)	ug/L	1100	-	-	1100	1200	1100	1650	930	1390	1390	1550	1490	1350	1310	1270	1420	1120	1110
Dissolved Selenium (Se)	ug/L	<1.0	-	50	<1.0	<1.0	<1.0	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Silver (Ag)	ug/L	<0.10	-	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Sodium (Na)	ug/L	58000	-	-	60000	71000	78000	14900	67200	13600	111000	133000	102000	98500	105000	81000	81700	67800	68600
Dissolved Strontium (Sr)	ug/L	48	48	7000	50	55	55	91.8	52.8	83.8	68.1	73.5	71.0	62.7	66.9	54.9	50.5	45.1	46.6
Dissolved Thallium (Tl)	ug/L	<0.10	-	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Tin (Sn)	ug/L	<2.0	-	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Titanium (Ti)	ug/L	<2.0	-	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Uranium (U)	ug/L	<0.10	-	20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Vanadium (V)	ug/L	<2.0	-	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Zinc (Zn)	ug/L	5.7	5.7	5000	27	11	10	3.14	<5.0	5.6	9.6	22.3	37.4	42.7	38.6	70.6	14.2	63.8	63.9

Table 6.3  
Monitoring Well Table  
MW17-1  
Goldboro Mine Bulk Sample Program Anaconda Mining Inc.  
570 Goldbrook Road, Goldboro, Guysborough County

	UNITS	12/16/2017	8/22/2018	95th Percentile	CDWQS	CCME-FAL	12/11/2019	3/19/2020	6/10/2020	9/2/2020	11/23/2020	2/9/2021	6/28/2021	9/20/2021	1-09-20 Dupli	11/29/2021
<b>Calculated Parameters</b>																
Anion Sum	me/L	1.48	0.49	-	-	-	0.65	0.500	0.39	0.460	0.460	0.440	0.600	0.620	0.640	0.450
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	42	10	-	-	-	14	10	9.4	11	14	11	14	14	13	14
Calculated TDS	mg/L	90	37	-	-	-	40	30	27	31	31	29	41	46	47	30
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	<1.0	-	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cation Sum	me/L	1.38	0.44	-	-	-	0.56	0.380	0.38	0.430	0.440	0.440	0.580	0.660	0.630	0.470
Hardness (CaCO3)	mg/L	33	10	-	-	-	11	7.2	8.7	10	13	9.2	16	20	19	11
Ion Balance (% Difference)	%	3.5	5.38	-	-	-	7.44	13.6	1.3	3.37	2.22	0	1.69	3.13	0.790	2.17
Langelier Index (@ 20C)	N/A	-1.39	-3.56	-	-	-	-3.26	-3.49	-3.46	-3.39	-2.95	-3.32	-3.08	-3.15	-3.20	-3.28
Langelier Index (@ 4C)	N/A	-1.64	-3.82	-	-	-	-3.51	-3.74	-3.71	-3.64	-3.20	-3.57	-3.33	-3.40	-3.45	-3.53
Nitrate (N)	mg/L	0.13	0.35	0.34	10	13	0.25	0.16	0.23	0.27	0.24	0.47	1.1	1.9	2.0	0.28
Saturation pH (@ 20C)	N/A	8.67	9.88	-	-	-	9.68	10.0	9.96	9.82	9.61	9.84	9.52	9.44	9.48	9.69
Saturation pH (@ 4C)	N/A	8.93	10.1	-	-	-	9.93	10.3	10.2	10.1	9.86	10.1	9.77	9.69	9.73	9.94
<b>Inorganics</b>																
Total Alkalinity (Total as CaCO3)	mg/L	42	10	-	-	-	14	10	9.4	11	14	11	14	14	13	14
Dissolved Chloride (Cl-)	mg/L	9.5	7.1	9.4	-	120	8.5	5.2	3.2	4.4	2.1	6.7	3.6	4.4	3.7	3.8
Colour	TCU	<5.0	<5	-	-	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	6
Nitrate + Nitrite (N)	mg/L	0.15	0.35	-	-	-	0.25	0.17	0.23	0.27	0.24	0.47	1.1	1.9	2.0	0.28
Nitrite (N)	mg/L	0.018	<0.01	0.018	1	0.6	<0.010	0.011	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrogen (Ammonia Nitrogen)	mg/L	<0.05	<0.05	-	-	0.49 <sup>9</sup>	0.059	<0.050	<0.050	0.059	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Total Organic Carbon (C)	mg/L	9.3	<1.0	-	-	-	<5.0 <sup>(6)</sup>	1.7	2.1	2.1	<50 <sup>(6)</sup>	<50	2.1	1.1	1.1	2.4
Orthophosphate (P)	mg/L	<0.01	<0.01	-	-	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
pH	pH	7.29	6.31	7.24	-	6.5 - 9	6.42 <sup>(5)</sup>	6.52	6.50	6.44 <sup>(5)</sup>	6.66	6.52	6.43	6.29	6.28	6.41
Reactive Silica (SiO2)	mg/L	7.7	9.8	-	-	-	3.9	3.3	4	5.7	5.2	3.9	5.5	7.0	7.0	4.2
Total Suspended Solids	mg/L		1800	-	-	-	760	340	230	1800	1100	620	220	110	140	79
Dissolved Sulphate (SO4)	mg/L	18	2.8	-	-	-	5.6	6.5	4.8	4.4	5.4	<2.0	6.7	4.4	6.4	2.3
Turbidity	NTU	70	610	-	-	-	51	90	14	260	260	250	73	36	36	31
Conductivity	uS/cm	150	63	-	-	-	61	39	41	46	44	48	60	73	74	48

Table 6.3  
Monitoring Well Table  
MW17-1  
Goldboro Mine Bulk Sample Program Anaconda Mining Inc.  
570 Goldbrook Road, Goldboro, Guysborough County

	UNITS	12/16/2017	8/22/2018	95th Percentile	CDWQS	CCME-FAL	12/11/2019	3/19/2020	6/10/2020	9/2/2020	11/23/2020	2/9/2021	6/28/2021	9/20/2021	1-09-20 Dupli	11/29/2021
<b>Metals</b>																
Dissolved Aluminum (Al)	ug/L	7.2	12	12	-	5 - 100 <sup>(1)</sup>	28.3 <sup>(5)</sup>	29.9	28.8	23.4 <sup>(5)</sup>	27.2	31	26.5	24.2	23.3	47.5
Dissolved Antimony (Sb)	ug/L	<1.0	<1.0	-	6	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Arsenic (As)	ug/L	1.8	3.3	3.2	10	5	1.5	1.8	1.3	1.4	1.5	1.6	1.7	1.8	1.8	1.3
Dissolved Barium (Ba)	ug/L	5.6	3.6	-	1,000	-	5.6	3	4.8	4.7	5.0	4.1	8.7	11.8	11.2	7.0
Dissolved Beryllium (Be)	ug/L	<1.0	<1.0	-	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Bismuth (Bi)	ug/L	<2	<2	-	-	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Boron (B)	ug/L	<50	<50	-	5,000	1,500	<50	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
Dissolved Cadmium (Cd)	ug/L	0.021	0.026	0.03	5	0.009	0.043 <sup>(5)</sup>	0.022 <sup>(5)</sup>	0.031 <sup>(5)</sup>	0.029 <sup>(5)</sup>	0.031 <sup>(5)</sup>	0.023	0.043	0.055	0.055	0.029
Dissolved Calcium (Ca)	ug/L	11000	2600	-	-	-	3030	1870	2280	2660	3540	2610	4400	5440	5220	2970
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	-	50	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Cobalt (Co)	ug/L	0	0.99	-	-	-	1.54	0.68	0.7	0.63	0.55	0.48	0.66	0.73	0.69	<0.40
Dissolved Copper (Cu)	ug/L	<2.0	<2	-	2,000	2 - 4 <sup>(2)</sup>	2.94 <sup>(5)</sup>	2.79 <sup>(5)</sup>	3.13 <sup>(5)</sup>	2.33 <sup>(5)</sup>	3.08 <sup>(5)</sup>	2.48	3.65	3.18	3.07	4.14
Dissolved Iron (Fe)	ug/L	<50	<50	-	-	300	<50	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
Dissolved Lead (Pb)	ug/L	<0.50	<0.5	-	5	1 - 7 <sup>(3)</sup>	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Magnesium (Mg)	ug/L	1300	860	-	-	-	920	610	740	870	1010	650	1250	1610	1530	780
Dissolved Manganese (Mn)	ug/L	73	71	-	120	190 <sup>10</sup>	9.38	45.8	46.2	42.3	48.9	34	48.6	54.8	51.3	27
Dissolved Molybdenum (Mo)	ug/L	<2.0	<2	-	-	73	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Nickel (Ni)	ug/L	2.7	<2	2.7	-	25 - 150 <sup>(4)</sup>	8.6	3.6	4.0	3.8	4.9	2.3	4.6	4.9	4.5	2.7
Dissolved Phosphorus (P)	ug/L	<100	<100	-	-	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Dissolved Potassium (K)	ug/L	1700	1100	-	-	-	1140	740	990	1000	980	870	1240	1400	1310	1050
Dissolved Selenium (Se)	ug/L	<1.0	<1.0	-	50	1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Silver (Ag)	ug/L	<0.1	<0.1	-	-	25	<0.1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.19
Dissolved Sodium (Na)	ug/L	16000	4900	-	-	-	6970	4930	4100	4490	3610	5450	5180	5160	4920	5310
Dissolved Strontium (Sr)	ug/L	35	24	34	7,000	-	4.33	26.3	31.5	34.7	50.4	44	69.5	82.6	79.2	50.8
Dissolved Thallium (Tl)	ug/L	<0.1.0	<0.1	-	-	8	<0.1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Tin (Sn)	ug/L	<2.0	<2	-	-	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Titanium (Ti)	ug/L	<2.0	<2	-	-	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Uranium (U)	ug/L	<0.10	<0.1	-	20	15	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Vanadium (V)	ug/L	<2.0	<2	-	-	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Zinc (Zn)	ug/L	<5.0	5.8	5.8	5,000	7 <sup>11</sup>	11.6	5.4	7.6	7.3	7.0	<5.0	9.8	13.3	10.8	<5.0

Notes

- <sup>(1)</sup> - Aluminum - pH dependant, <6.5 = 5 ug/L, >6.5 = 100 ug/L
- <sup>(2)</sup> - Copper - Hardness Dependant, <120 mg/L = 2 ug/L, 120 to 180 mg/L = 2 to 4 ug/L, >180 mg/L = 4 ug/L
- <sup>(3)</sup> - Lead - Hardness Dependant, <60 mg/L = 1 ug/L, 60-180 mg/L = 1 ug/L to 7 ug/L, >180 mg/L = 7 ug/L
- <sup>(4)</sup> - Nickel - Hardness Dependant, <60 mg/L = 25 ug/L, 60-180 mg/L = 25 ug/L to 150 ug/L, >180 mg/L = 150 ug/L
- <sup>(5)</sup> - concentration is greater than CCME FAL
- <sup>(6)</sup> - concentration is greater than CDWQS and CCME FAL
- <sup>(7)</sup> - concentration is greater than CDWQS
- <sup>(8)</sup> - Elevated reporting limit due to turbidity.
- <sup>(9)</sup> - Nitrogen - pH and Temperature Dependent. pH of 6 and Temperature of 20 degrees Celsius assumed.
- <sup>(10)</sup> - Manganese - Hardness and pH Dependant. Hardness <10mg/L and pH of 5.5 assumed
- <sup>(11)</sup> - Zinc - Hardness, pH and DOC Dependent. Hardness of 50 mg/L, pH of 7.5 and DOC of 0.5 mg/L assumed.

Table 6.4  
Monitoring Well Table  
MW17-2  
Goldboro Mine Bulk Sample Program Anaconda Mining Inc.  
570 Goldbrook Road, Goldboro, Guysborough County

	UNITS	12/16/2017	8/22/2018	95th Percentile	CDWQS	CCME-FAL	12/11/2019	3/19/2020	6/10/2020	2020-06-10 Duplicate	9/2/2020	11/23/2020	2/9/2021	6/28/2021	9/20/2021	11/29/2021
<b>Calculated Parameters</b>																
Anion Sum	me/L	1.19	0.64	-	-	-	0.54	0.440	0.450	0.400	0.580	0.480	0.480	0.520	0.450	0.400
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	39	11	-	-	-	8.7	5.5	6.3	5.8	7.6	6.9	7.1	6.4	8.1	8
Calculated TDS	mg/L	71	42	-	-	-	34	29	32	29	39	34	31	34	33	28
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	<1.0	-	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cation Sum	me/L	1.08	0.54	-	-	-	0.44	0.340	0.430	0.420	0.480	0.440	0.400	0.420	0.460	0.390
Hardness (CaCO3)	mg/L	30	9.5	-	-	-	8.2	6.4	7.7	7.6	8.2	7.3	8.5	6.9	8.9	7.9
Ion Balance (% Difference)	%	4.85	8.47	-	-	-	10.2	12.8	2.27	2.44	9.43	4.35	9.09	10.6	1.10	1.27
Langelier Index (@ 20C)	N/A	-1.39	-4.39	-	-	-	-4.6	-4.87	-4.79	-4.56	-4.40	-4.74	-4.63	-5.05	-4.45	-4.63
Langelier Index (@ 4C)	N/A	-1.64	-4.64	-	-	-	-4.85	-5.12	-5.04	-4.81	-4.66	-4.99	-4.89	-5.30	-4.70	-4.88
Nitrate (N)	mg/L	<0.050	<0.05	-	10	13	0.53	0.68	0.56	0.57	0.33	0.41	1	0.52	0.84	0.67
Saturation pH (@ 20C)	N/A	8.74	10.1	-	-	-	10.1	10.5	10.4	10.4	10.3	10.4	10.2	10.5	10.1	10.2
Saturation pH (@ 4C)	N/A	8.99	10.4	-	-	-	10.4	10.7	10.6	10.7	10.5	10.6	10.5	10.7	10.4	10.4
<b>Inorganics</b>																
Total Alkalinity (Total as CaCO3)	mg/L	39	11	-	-	-	8.7	5.5	6.3	5.8	7.6	6.9	7.1	6.4	8.1	8
Dissolved Chloride (Cl-)	mg/L	9.6	13	13	-	120	9.5	7.6	8.3	8.5	12	8.9	9.4	9.8	8.0	6.8
Colour	TCU	<5.0	<5	-	-	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Nitrate + Nitrite (N)	mg/L	<0.050	<0.05	-	-	-	0.53	0.68	0.56	0.57	0.33	0.41	1	0.52	0.84	0.67
Nitrite (N)	mg/L	<0.010	<0.01	-	1	0.6	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrogen (Ammonia Nitrogen)	mg/L	0.083	0.068	-	-	0.49 <sup>10</sup>	0.078	<0.050	0.076	<0.050	0.10	0.055	<0.050	<0.050	0.052	<0.050
Total Organic Carbon (C)	mg/L	<5.0	<1.0	-	-	-	<5.0 <sup>(9)</sup>	1.0	1.5	1.0	1.2	<5.0 <sup>(9)</sup>	1.1	1.5	1.3	1.5
Orthophosphate (P)	mg/L	<0.010	<0.01	-	-	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
pH	pH	7.35	5.72	7.27	-	6.5 - 9	5.53 <sup>(9)</sup>	5.61 <sup>(9)</sup>	5.59 <sup>(9)</sup>	5.86 <sup>(9)</sup>	5.89 <sup>(9)</sup>	5.65 <sup>(9)</sup>	5.61	5.42	5.68	5.56
Reactive Silica (SiO2)	mg/L	7.5	7.5	-	-	-	4.9	4.2	5.5	5.4	7.0	6.6	4.7	5.5	6.6	5.1
Total Suspended Solids	mg/L		4600	-	-	-	110	83	40	55	180	220	57	240	120	180
Dissolved Sulphate (SO4)	mg/L	6.1	2.8	-	-	-	2.9	3.2	2.4	<2.0	2.5	3.1	<2.0	4.1	<2.0	<2.0
Turbidity	NTU	45	>1000	-	-	-	190	25	11	6.5	42	27	14	31	50	36
Conductivity	uS/cm	120	72	-	-	-	52	42	52	49	58	57	50	53	55	47

Table 6.4  
Monitoring Well Table  
MW17-2  
Goldboro Mine Bulk Sample Program Anaconda Mining Inc.  
570 Goldbrook Road, Goldboro, Guysborough County

	UNITS	12/16/2017	8/22/2018	95th Percentile	CDWQS	CCME-FAL	12/11/2019	3/19/2020	6/10/2020	2020-06-10 Duplicate	9/2/2020	11/23/2020	2/9/2021	6/28/2021	9/20/2021	11/29/2021
<b>Metals</b>																
Dissolved Aluminum (Al)	ug/L	36	93	90	-	5 - 100 <sup>(1)</sup>	217 <sup>(6)</sup>	357 <sup>(6)</sup>	324 <sup>(6)</sup>	309 <sup>(6)</sup>	285 <sup>(6)</sup>	353 <sup>(6)</sup>	507	635	298	483
Dissolved Antimony (Sb)	ug/L	<1.0	<1.0	-	6	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Arsenic (As)	ug/L	2.6	<1.0	2.6	10	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Barium (Ba)	ug/L	13	26	-	1,000	-	22.3	16.7	25	24.4	28.8	21.9	15.4	13.7	17.6	13.6
Dissolved Beryllium (Be)	ug/L	<1.0	<1.0	-	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.1
Dissolved Bismuth (Bi)	ug/L	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Boron (B)	ug/L	<50	<50	-	5,000	1,500	<50	<50	<50	<50	<50	<50.0	<50.0	<50.0	<50.0	<50.0
Dissolved Cadmium (Cd)	ug/L	0.14	0.2	0.20	5	0.009	0.105 <sup>(5)</sup>	0.095 <sup>(5)</sup>	0.145 <sup>(5)</sup>	0.138 <sup>(5)</sup>	0.132 <sup>(5)</sup>	0.097 <sup>(5)</sup>	0.082	0.044	0.087	0.057
Dissolved Calcium (Ca)	ug/L	9800	1500	-	-	-	1690	1170	1300	1270	1320	1150	1580	1060	1830	1580
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	-	50	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Cobalt (Co)	ug/L	3.6	4.3	-	-	-	2.11	1.87	2.48	2.61	3.10	2.45	1.7	1.47	2.11	1.49
Dissolved Copper (Cu)	ug/L	3.0	2.8	3.0	2,000	2 - 4 <sup>(2)</sup>	1.76	1.04	1.47	1.40	1.49	1.3	0.97	1.19	1.3	1.79
Dissolved Iron (Fe)	ug/L	620	140	596	-	300	<50	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	-	5	1 - 7 <sup>(3)</sup>	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Magnesium (Mg)	ug/L	1300	1400	-	-	-	950	850	1070	1080	1180	1080	1120	1040	1050	950
Dissolved Manganese (Mn)	ug/L	850	920	917	120	190 <sup>11</sup>	390	303	406	397	555	407	241	101	250	120
Dissolved Molybdenum (Mo)	ug/L	<2.0	<2.0	-	-	73	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Nickel (Ni)	ug/L	5.0	3.3	4.92	-	25 - 150 <sup>(4)</sup>	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Phosphorus (P)	ug/L	<100	<100	-	-	-	<100	<100	<100	<100	<100	<100.0	<100.0	<100.0	<100.0	<100.0
Dissolved Potassium (K)	ug/L	1700	1300	-	-	-	870	600	920	890	1000	810	660	710	900	760
Dissolved Selenium (Se)	ug/L	<1.0	<1.0	-	50	1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Silver (Ag)	ug/L	<0.10	<0.10	-	-	25	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Sodium (Na)	ug/L	9400	6900	-	-	-	5620	4510	5700	5610	6500	6020	4760	6080	5810	4870
Dissolved Strontium (Sr)	ug/L	24	18	24	7,000	-	19.8	14.1	15.5	16.1	15.7	16.2	20.6	13.3	24	21
Dissolved Thallium (Tl)	ug/L	<0.10	<0.10	-	-	8	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Tin (Sn)	ug/L	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Titanium (Ti)	ug/L	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Uranium (U)	ug/L	<0.10	<0.10	-	20	15	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Vanadium (V)	ug/L	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Zinc (Zn)	ug/L	15	5.5	14.5	5,000	7 <sup>12</sup>	11.5	<5.0	8.7	6.1	<5.0	6.1	<5.0	<5.0	6.2	5.4

Notes

- <sup>(1)</sup> - Aluminum - pH dependant, <6.5 = 5 ug/L, >6.5 = 100 ug/L
- <sup>(2)</sup> - Copper - Hardness Dependand, <120 mg/L = 2 ug/L, 120 to 180 mg/L = 2 to 4 ug/L, >180 mg/L = 4 ug/L
- <sup>(3)</sup> - Lead - Hardness Dependand, <60 mg/L = 1 ug/L, 60-180 mg/L = 1 ug/L to 7 ug/L, >180 mg/L = 7 ug/L
- <sup>(4)</sup> - Nickel - Hardness Dependand, <60 mg/L = 25 ug/L, 60-180 mg/L = 25 ug/L to 150 ug/L, >180 mg/L = 150 ug/L
- <sup>(5)</sup> - concentration is greater than CCME FAL
- <sup>(6)</sup> - concentration is greater than CDWQS and CCME FAL
- <sup>(7)</sup> - concentration is greater than CDWQS
- <sup>(8)</sup> - concentration is greater than 95th percentile.
- <sup>(9)</sup> - Elevated reporting limit due to turbidity.
- <sup>(10)</sup> - Nitrogen - pH and Temperature Dependent. pH of 6 and Temperature of 20 degrees Celsius assumed.
- <sup>(11)</sup> - Manganese - Hardness and pH Dependand. Hardness <10mg/L and pH of 5.5 assumed
- <sup>(12)</sup> - Zinc - Hardness, pH and DOC Dependent. Hardness of 50 mg/L, pH of 7.5 and DOC of 0.5 mg/L assumed.

Table 6.5  
 Monitoring Well Table  
 MW17-3D  
 Goldboro Mine Bulk Sample Program Anaconda Mining Inc.  
 570 Goldbrook Road, Goldboro, Guysborough County

	UNITS	12/16/2017	8/22/2018	95th Percentile	CDWQS	CCME-FAL	12/12/2019	3/19/2020	6/10/2020	9/2/2020	2020-09-02 Duplicate	11/23/2020	2/9/2021	6/28/2021	9/20/2021	11/29/2021
<b>Calculated Parameters</b>																
Anion Sum	me/L	0.950	1.52	--	--	--	1.18	0.990	1.17	1.19	1.15	1.25	1.2	1.57	1.22	1.65
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	28	43	--	--	--	30	22	26	29	29	32	30	46	33	51
Calculated TDS	mg/L	62	100	--	--	--	81	72	83	82	80	89	86	100	86	110
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	<1.0	--	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cation Sum	me/L	0.880	1.37	--	--	--	1.08	0.940	1.09	1.11	1.09	1.23	1.22	1.45	1.31	1.61
Hardness (CaCO3)	mg/L	27	47	--	--	--	36	30	35	36	36	40	40	50	44	56
Ion Balance (% Difference)	%	3.83	5.19	--	--	--	4.42	2.59	3.54	3.48	2.68	0.810	0.830	3.97	3.56	1.23
Langelier Index (@ 20C)	N/A	-1.91	-1.75	--	--	--	-2.08	-2.52	-2.35	-2.12	-2.07	-2.11	-2.1	-1.52	-1.99	-1.55
Langelier Index (@ 4C)	N/A	-3.83	-2	--	--	--	-2.33	-2.77	-2.6	-2.37	-2.32	-2.36	-2.35	-1.77	-2.24	-1.8
Nitrate (N)	mg/L	0.071	0.11	0.11	10	13	0.40	0.46	0.40	0.38	0.59	0.49	0.66	0.39	0.54	0.38
Saturation pH (@ 20C)	N/A	9.03	8.67	--	--	--	8.92	9.15	9.01	8.94	8.95	8.86	8.9	8.59	8.8	8.51
Saturation pH (@ 4C)	N/A	9.28	8.92	--	--	--	9.17	9.40	9.26	9.19	9.20	9.12	9.15	8.84	9.05	8.76



Table 6.5  
Monitoring Well Table  
MW17-3D  
Goldboro Mine Bulk Sample Program Anaconda Mining Inc.  
570 Goldbrook Road, Goldboro, Guysborough County

	UNITS	12/16/2017	8/22/2018	95th Percentile	CDWQS	CCME-FAL	12/12/2019	3/19/2020	6/10/2020	9/2/2020	2020-09-02 Duplicate	11/23/2020	2/9/2021	6/28/2021	9/20/2021	11/29/2021
<b>Inorganics</b>																
Total Alkalinity (Total as CaCO <sub>3</sub> )	mg/L	28	43	--	--	--	30	22	26	29	29	32	30	46	33	51
Dissolved Chloride (Cl <sup>-</sup> )	mg/L	7	6.8	7.0	--	120	7.1	7.5	7.4	10	8.5	7.0	9.8	7.5	8.5	7.7
Colour	TCU	6.8	<5	--	--	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Nitrate + Nitrite (N)	mg/L	0.071	0.11	--	--	--	0.40	0.46	0.40	0.38	0.59	0.50	0.66	0.39	0.54	0.38
Nitrite (N)	mg/L	<0.010	<0.01	--	1	0.6	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	<0.010	<0.010	<0.010	<0.010
Nitrogen (Ammonia Nitrogen)	mg/L	0.15	<0.05	--	--	0.49 <sup>10</sup>	<0.050	<0.050	0.079	0.088	0.059	0.12	<0.050	0.061	<0.050	<0.050
Total Organic Carbon (C)	mg/L	<50 <sup>(9)</sup>	<1.0	--	--	--	<5.0 <sup>(9)</sup>	<5.0 <sup>(9)</sup>	<5.0 <sup>(9)</sup>	<5.0 <sup>(9)</sup>	<5.0 <sup>(9)</sup>	<50 <sup>(9)</sup>	<5.0	1	<5.0	<5.0
Orthophosphate (P)	mg/L	0.022	0.054	--	--	--	0.058	0.044	0.049	0.060	0.059	0.063	0.061	0.088	0.086	0.11
pH	pH	7.12	6.92	7.1	--	6.5 - 9	6.84	6.63	6.66	6.82	6.88	6.75	6.8	7.07	6.8	6.96
Reactive Silica (SiO <sub>2</sub> )	mg/L	10	18	--	--	--	16	16	17	17	16	18	18	17	16	17
Total Suspended Solids	mg/L		4800	--	--	--	340	710	270	1800	1500	1400	420	54	1000	1100
Dissolved Sulphate (SO <sub>4</sub> )	mg/L	9.5	22	--	--	--	17	15	20	14	14	19	13	20	14	19
Turbidity	NTU	>1000	>1000	--	--	--	280	360	130	160	410	700	360	39	730	500
Conductivity	uS/cm	99	150	--	--	--	110	93	120	120	120	120	120	150	140	160
Dissolved Aluminum (Al)	ug/L	47	21	46	--	5 - 100 <sup>(1)</sup>	<5.0	<5.0	<5.0	6.9	<5.0	<5.0	<5.0	<5.0	5.1	<5.0
Dissolved Antimony (Sb)	ug/L	<1.0	<1.0	--	6	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Arsenic (As)	ug/L	11	65	62	10	5	85.9 <sup>(6)</sup>	44.0	51.7	80.4 <sup>(6)</sup>	75.9 <sup>(6)</sup>	83.3 <sup>(6)</sup>	66.6	139	112	202
Dissolved Barium (Ba)	ug/L	3.3	11	--	1,000	-	5.2	4.3	5.1	5.1	4.8	5.3	5.3	7.6	5.7	6.7
Dissolved Beryllium (Be)	ug/L	<1.0	<1.0	--	--	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Bismuth (Bi)	ug/L	<2.0	<2.0	--	--	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Boron (B)	ug/L	<50	<50	--	5,000	1,500	<50	<50	<50	<50	<50	<50	<5.0	<5.0	<5.0	<5.0
Dissolved Cadmium (Cd)	ug/L	>0.010	0.017	0.017	5	0.009	>0.010	<0.01	0.017	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012
Dissolved Calcium (Ca)	ug/L	7000	11000	--	--	-	8620	6800	8010	8440	8320	9390	9090	12500	10500	13600
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	--	50	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Cobalt (Co)	ug/L	<0.40	ND	--	--	-	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Dissolved Copper (Cu)	ug/L	2.8	<2	--	2,000	2 - 4 <sup>(2)</sup>	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.75	<0.50	<0.50
Dissolved Iron (Fe)	ug/L	<50	<50	--	--	300	<50	<50	<50	<50	<50	<50.0	<50.0	<50.0	<50.0	<50.0
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	--	5	1 - 7 <sup>(3)</sup>	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Magnesium (Mg)	ug/L	2400	4700	--	--	-	3540	3070	3720	3720	3650	4130	4210	4580	4350	5330
Dissolved Manganese (Mn)	ug/L	31	250	239	120	190 <sup>11</sup>	133	79.8	92	148	134	162	130	10.8	172	368
Dissolved Molybdenum (Mo)	ug/L	<2.0	<2.0	--	--	73	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Nickel (Ni)	ug/L	2.6	<2.0	2.6	--	25 - 150 <sup>(4)</sup>	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Phosphorus (P)	ug/L	<100	<100	--	--	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Dissolved Potassium (K)	ug/L	2300	2700	--	--	-	2120	2000	2180	2160	2160	2200	2330	2640	2450	2650
Dissolved Selenium (Se)	ug/L	<1.0	<1.0	--	50	1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Silver (Ag)	ug/L	<0.10	<0.10	--	--	25	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Sodium (Na)	ug/L	6100	8400	--	--	-	6900	6750	7460	7420	7320	8120	8250	8740	8460	9750
Dissolved Strontium (Sr)	ug/L	46	110	--	7,000	-	105	76.3	93	102	98.7	112	105	151	131	169
Dissolved Thallium (Tl)	ug/L	<0.10	<0.10	--	--	8	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Tin (Sn)	ug/L	<2.0	<2.0	--	--	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Titanium (Ti)	ug/L	2.2	<2.0	--	--	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Uranium (U)	ug/L	<0.10	<0.1	--	20	15	0.18	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.11
Dissolved Vanadium (V)	ug/L	<2.0	<2.0	--	--	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Zinc (Zn)	ug/L	7.9	<5.0	7.9	5,000	7 <sup>12</sup>	<5.0	<5.0	<5.0	<5.0	<5.0	7.9	<5.0	5.7	<5.0	<5.0

Notes

- (1) - Aluminum - pH dependant, <6.5 = 5 ug/L, >6.5 = 100 ug/L
- (2) - Copper - Hardness Dependant, <120 mg/L = 2 ug/L, 120 to 180 mg/L = 2 to 4 ug/L, >180 mg/L = 4 ug/L
- (3) - Lead - Hardness Dependant, <60 mg/L = 1 ug/L, 60-180 mg/L = 1 ug/L to 7 ug/L, >180 mg/L = 7 ug/L
- (4) - Nickel - Hardness Dependant, <60 mg/L = 25 ug/L, 60-180 mg/L = 25 ug/L to 150 ug/L, >180 mg/L = 150 ug/L
- (5) - concentration is greater than CCME FAL
- (6) - concentration is greater than CDWQS and CCME FAL
- (7) - concentration is greater than CDWQS
- (8) - concentration is greater than 95th percentile.
- (9) - Elevated reporting limit due to turbidity.
- (10) - Nitrogen - pH and Temperature Dependent. pH of 6 and Temperature of 20 degrees Celsius assumed.
- (11) - Manganese - Hardness and pH Dependant. Hardness <10mg/L and pH of 5.5 assumed
- (12) - Zinc - Hardness, pH and DOC Dependent. Hardness of 50 mg/L, pH of 7.5 and DOC of 0.5 mg/L assumed.

Table 6.6  
Monitoring Well Table  
MW17-3S  
Goldboro Mine Bulk Sample Program Anaconda Mining Inc.  
570 Goldbrook Road, Goldboro, Guysborough County

	UNITS	12/16/2017	95th Percentile	CDWQS	CCME-FAL	12/12/2019	3/19/2020	6/10/2020	9/2/2020	11/23/2020	2/9/2021	2021-02-09 Duplicate	6/28/2021	2021-06-28-Duplicate	9/20/2021	11/29/2021
<b>Calculated Parameters</b>													GW-DUP			
Anion Sum	me/L	0.410	--	--	--	0.38	0.210	0.300	0.290	0.340	0.370	0.320	0.490	0.410	0.370	0.390
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	12	--	--	--	6.6	<1.0	5.7	6.7	7.5	8.9	6.7	10	8.8	7.9	8.3
Calculated TDS	mg/L	30	--	--	--	26	16	22	22	24	23	22	33	29	26	28
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	--	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cation Sum	me/L	0.430	--	--	--	0.33	0.250	0.330	0.330	0.300	0.300	0.310	0.440	0.450	0.380	0.430
Hardness (CaCO3)	mg/L	7.9	--	--	--	6.8	4.7	8.3	7.3	7.7	7.4	7.5	12	13	6.8	10
Ion Balance (% Difference)	%	2.38	--	--	--	7.04	8.70	4.76	6.45	6.25	10.5	1.59	5.38	4.65	1.33	4.88
Langelier Index (@ 20C)	N/A	-3.17	--	--	--	-4.3	NC	-4.18	-4.10	-4.09	-3.99	-4.09	-3.41	-3.48	-3.92	-3.79
Langelier Index (@ 4C)	N/A	-3.42	--	--	--	-4.55	NC	-4.43	-4.35	-4.34	-4.24	-4.35	-3.66	-3.73	-4.18	-4.04
Nitrate (N)	mg/L	<0.050	--	10	13	0.37	0.17	0.58	0.51	0.47	0.64	0.64	0.65	0.66	0.75	0.82
Saturation pH (@ 20C)	N/A	9.91	--	--	--	10.2	NC	10.1	10.1	10.00	10.00	10.10	9.70	9.74	10.1	9.86
Saturation pH (@ 4C)	N/A	10.2	--	--	--	10.4	NC	10.4	10.3	10.3	10.2	10.4	9.95	10.0	10.3	10.1
<b>Inorganics</b>																
Total Alkalinity (Total as CaCO3)	mg/L	12	--	--	--	6.6	<5.0	5.7	6.7	7.5	8.9	6.7	10	8.8	7.9	8.3
Dissolved Chloride (Cl-)	mg/L	6.3	6.3	--	120	6	5.3	5.2	4.4	3.6	5.1	5.1	6.7	6.6	5.5	5.8
Colour	TCU	31	--	--	--	<5.0	5.2	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	12	<5.0
Nitrate + Nitrite (N)	mg/L	<0.050	--	--	--	0.37	0.17	0.58	0.51	0.48	0.64	0.64	0.65	0.66	0.76	0.82
Nitrite (N)	mg/L	<0.010	--	1	0.6	<0.010	<0.010	<0.010	<0.010	0.010	<0.010	<0.010	<0.010	<0.010	0.011	<0.010
Nitrogen (Ammonia Nitrogen)	mg/L	0.089	--	--	0.49 <sup>10</sup>	<0.050	0.053	0.068	0.21	0.096	<0.050	<0.050	0.11	0.13	<0.050	0.1
Total Organic Carbon (C)	mg/L	<5.0 <sup>(8)</sup>	--	--	--	<5.0 <sup>(8)</sup>	<5.0 <sup>(8)</sup>	<5.0 <sup>(8)</sup>	<5.0 <sup>(8)</sup>	<5.0 <sup>(8)</sup>	<5.0	<5.0	2.4	2.3	<5.0 (2)	2.6
Orthophosphate (P)	mg/L	0.010	--	--	--	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
pH	pH	6.75	6.75	--	6.5 - 9	5.86 <sup>(5)</sup>	5.97 <sup>(5)</sup>	5.93 <sup>(5)</sup>	6.00 <sup>(5)</sup>	5.93 <sup>(5)</sup>	6.01	6.02	6.29	6.26	6.13	6.07
Reactive Silica (SiO2)	mg/L	6.5	--	--	--	4.4	2.3	4.0	4.4	5.2	3.6	3.6	5.0	4.9	4.3	4.7
Total Suspended Solids	mg/L		--	--	--	530	3600	31000	19000	15000	1300	280	1700	950	3700	260
Dissolved Sulphate (SO4)	mg/L	<2.0	--	--	--	2.5	2.3	<2.0	<2.0	2.7	<2.0	<2.0	2.6	<2.0	<2.0	<2.0
Turbidity	NTU	>1000	--	--	--	83	570	>1000	>1000	>1000	170	160	210	230	150	82
Conductivity	uS/cm	48	--	--	--	35	27	37	34	33	33	33	50	49	48	49

Table 6.6  
Monitoring Well Table  
MW17-3S  
Goldboro Mine Bulk Sample Program Anaconda Mining Inc.  
570 Goldbrook Road, Goldboro, Guysborough County

	UNITS	12/16/2017	95th Percentile	CDWQS	CCME-FAL	12/12/2019	3/19/2020	6/10/2020	9/2/2020	11/23/2020	2/9/2021	2021-02-09 Duplicate	6/28/2021	2021-06-28-Duplicate	9/20/2021	11/29/2021
<b>Metals</b>																
Dissolved Aluminum (Al)	ug/L	470	470	--	5 - 100 <sup>(1)</sup>	102	151	137	139	84.9	145	139	75.7	74.5	189	124
Dissolved Antimony (Sb)	ug/L	<1.0	--	6	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Arsenic (As)	ug/L	1.4	1.4	10	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0
Dissolved Barium (Ba)	ug/L	9.3	9.3	1,000	--	8.8	7.9	8.5	9.0	8.2	9.5	9.2	12.6	12.8	13.2	13.3
Dissolved Beryllium (Be)	ug/L	<1.0	--	--	--	<1.0	<1.0	<1.0	<1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Bismuth (Bi)	ug/L	<2.0	--	--	--	<2.0	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Boron (B)	ug/L	<50	--	5,000	1,500	<50	<50	<50	<51	50	<50	<50	<50	<50	<50	<50
Dissolved Cadmium (Cd)	ug/L	0.031	0.031	5	0.009	0.028	0.016	0.024	0.019	0.052	0.019	0.022	0.029	0.029	0.029	0.032
Dissolved Calcium (Ca)	ug/L	2000	--	--	--	2040	1360	2640	2310	2490	2170	2210	3970	4010	2150	3230
Dissolved Chromium (Cr)	ug/L	<1.0	--	50	--	<1.0	<1.0	<1.0	<1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Cobalt (Co)	ug/L	2.1	--	--	--	<0.40	<0.40	<0.40	<0.41	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Dissolved Copper (Cu)	ug/L	17	17	2,000	2 - 4 <sup>(2)</sup>	3.65	3.03	3.09	2.83	<2.0	1.27	1.28	1.16	1.2	3.3	1.42
Dissolved Iron (Fe)	ug/L	410	--	--	300	<50	<50	<50	<51	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
Dissolved Lead (Pb)	ug/L	0.56	--	5	1 - 7 <sup>(3)</sup>	<0.50	<0.50	<0.50	<0.51	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Magnesium (Mg)	ug/L	680	--	--	--	420	320	420	370	350	480	480	610	630	340	510
Dissolved Manganese (Mn)	ug/L	180	180	120	190 <sup>(11)</sup>	18.5	11.9	12.4	12.7	10.1	15.2	15.2	10.4	10.6	12.9	12.2
Dissolved Molybdenum (Mo)	ug/L	<2.0	--	--	73	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Nickel (Ni)	ug/L	7.6	--	--	25 - 150 <sup>(4)</sup>	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Phosphorus (P)	ug/L	<100	--	--	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Dissolved Potassium (K)	ug/L	1800	--	--	--	890	700	830	910	720	840	850	880	890	1140	920
Dissolved Selenium (Se)	ug/L	<1.0	--	50	1	<0.50	<0.50	<0.50	<0.51	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Silver (Ag)	ug/L	0.18	--	--	25	0.36	0.12	0.17	<0.10	<0.10	<0.10	0.1	<0.10	<0.10	<0.10	<0.10
Dissolved Sodium (Na)	ug/L	4600	--	--	--	3860	3040	3070	3240	2680	3070	3130	3760	3860	4850	4390
Dissolved Strontium (Sr)	ug/L	12	12	7,000	--	17.7	11.5	21.1	20.2	19.8	16.7	16.2	29.9	30.2	24	25.8
Dissolved Thallium (Tl)	ug/L	<0.10	--	--	8	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Tin (Sn)	ug/L	<2.0	--	--	--	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Titanium (Ti)	ug/L	17	--	--	--	<2.0	<2.0	2.6	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Uranium (U)	ug/L	<0.10	--	20	15	<0.10	<0.10	<0.10	<0.11	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Vanadium (V)	ug/L	<2.0	--	--	--	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Zinc (Zn)	ug/L	14	14	5,000	7 <sup>(12)</sup>	12.5	<5.0	7.7	<5.0	6.6	<5.0	<5.0	5.5	5.8	10.9	5.5

Notes

- <sup>(1)</sup> - Aluminum - pH dependant, <6.5 = 5 ug/L, >6.5 = 100 ug/L
- <sup>(2)</sup> - Copper - Hardness Dependant, <120 mg/L = 2 ug/L, 120 to 180 mg/L = 2 to 4 ug/L, >180 mg/L = 4 ug/L
- <sup>(3)</sup> - Lead - Hardness Dependant, <60 mg/L = 1 ug/L, 60-180 mg/L = 1 ug/L to 7 ug/L, >180 mg/L = 7 ug/L
- <sup>(4)</sup> - Nickel - Hardness Dependant, <60 mg/L = 25 ug/L, 60-180 mg/L = 25 ug/L to 150 ug/L, >180 mg/L = 150 ug/L
- <sup>(5)</sup> - concentration is greater than CCME FAL
- <sup>(6)</sup> - concentration is greater than CDWQS and CCME FAL
- <sup>(7)</sup> - concentration is greater than CDWQS
- <sup>(8)</sup> - Elevated reporting limit due to turbidity.
- <sup>(9)</sup> - greater than 95th percentile
- <sup>(10)</sup> - Nitrogen - pH and Temperature Dependent. pH of 6 and Temperature of 20 degrees Celsius assumed.
- <sup>(11)</sup> - Manganese - Hardness and pH Dependant. Hardness <10mg/L and pH of 5.5 assumed
- <sup>(12)</sup> - Zinc - Hardness, pH and DOC Dependent. Hardness of 50 mg/L, pH of 7.5 and DOC of 0.5 mg/L assumed.