AGNICO EAGLE

November 28th, 2019

Re: Agnico Eagle Meadowbank Mine – Whale Tail Dewatering Discharge Turbidity exceedance reported on October 28th, 2019 - Follow up report (GN #2019-447)

As required by Water License 2AM-WTP1826 Part H, Item 8b, Section 24(1)(a) of the Metal and Diamond Mining Effluent Regulations and subsection 38 (5) of the *Fisheries Act*, Agnico Eagle Mine Ltd. Meadowbank Division informed you via email on October 28th, that the readings of Turbidity from the Whale Tail Dewatering discharge exceeded the limits, set out in Water License Part D Item 7, of 30 NTU, for the maximum authorized concentration in a grab sample.

As required by Water License 2AM-WTP1826 Part H, Item 8c and MDMER Section 24 (2), please consider this letter as the written report describing the test results to be submitted 30 days after the tests have been completed.

Water discharge to the Whale Tail South Lake (*65°23'49.08" 96°40'58.00"*) for the regulatory Whale Tail North Dewatering Discharge has been ongoing during the Whale Tail operations and as required by Water License (ST-DD-7) and MDMER (ST-MDMER-5 Whale Tail North basin Dewatering Phase 1, *65°23'51.3" 96°40'49.0"*), daily and weekly samples are taken and reported monthly via the NWB Monthly report and on a quarterly basis via the ECCC systems.

The Whale Tail Dewatering Discharge effluent was sampled on October 28th, 2019 at 6:40 CT for parameters to be shipped to our external accredited laboratory. In-field turbidity is also completed to follow water quality being discharged. During this sampling turbidity was measured at 15.94 NTU. The subsequent turbidity result taken around 11:30 was found to have increased at 80,10 NTU. The additional internal field turbidity readings are taken during the day to monitor potential variations in the discharge.
At that moment strong blizzard conditions prevented further safe sampling from being completed.
Additional sampling was completed on October 29th as required, including a toxicity sampling (results provided in appendix, showing the water to be not deleterious).

The table below, recaps results for turbidity and TSS for the time period of the elevated turbidity reading.

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Previous results:

Date	Turbidity (UTN)	TSS (mg/L)
2019/10/28 6:40	15.94	17.0
2019/10/28 11:30	80.10	-
Blizzard conditions		
2019/10/29 6:30	11.90	26.0
2019/10/29 11:00	14.90	-
2019/10/29 17:00	15.8	-
2019/10/30 6:45	1.79	8.0

A total flow of 4292 m^3 between 11:30 on October 28th and 6:50 on October 29th was estimated.

Blizzard conditions had a very significant impact on the discharge as the water source was still in open water condition. With ice conditions increasing the covering of the area, thus reducing exposure, future similar event would not impact water quality in the same manner.

Given the short duration of the Turbidity exceedance between October 28th and 29th, Agnico is confident that the aquatic environment was protected and not impacted.

Should you have any questions regarding this report, please do not hesitate to contact the undersigned.

Regards,

Agnico Eagle Mines Limited – Meadowbank Division

Robin Allard
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AQUATOX
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TOXICITY TEST REPORT

Daphnia magna
EPS 1/RM/14

Work Order : 240736
Sample Number : 61357

SAMPLE IDENTIFICATION

Company :	Agnico Eagle Mines Limited- Meadowbank Division	Date Collected :	2019-10-29
Location :	Baker Lake NU	Time Collected :	17:00
Substance :	ST-MDMER-5	Date Received :	2019-11-04
Sampling Method :	Grab	Time Received :	10:15
Sampled By :	S. Tapp, K. Martee	Temperature on Receipt :	11.0 °C
Sample Description :	Clear, light green, mild odour	Date Tested :	2019-11-04

Test Method : Reference Method for Determining Acute Lethality of Effluents to *Daphnia magna* . Environment Canada EPS 1/RM/14 (Second Edition, December 2000, with February 2016 amendments).

48-HOUR TEST RESULTS

Substance	Effect	Value
Control	Mean Immobility	0.0 %
	Mean Mortality	0.0 %
100%	Mean Immobility	0.0 %
	Mean Mortality	0.0 %

The results reported relate only to the sample tested and as received.

TEST ORGANISM

Species :	*Daphnia magna*	Time to First Brood :	8 days
Organism Batch :	Dm19-21	Average Brood Size :	31.8 young
Culture Mortality :	1.1% (previous 7 days)		

TEST CONDITIONS

Sample Treatment :	None	Number of Replicates :	3
pH Adjustment :	None	Organisms / Replicate :	10
Pre-aeration Rate :	~30 mL/min/L	Organisms / Test Level :	30
Pre-aeration Time :	30 minutes	Organism Loading Rate :	15.0 mL/organism
Test Aeration :	None	Impaired Control Organisms :	0.0%
Hardness Adjustment :	None	Test Method Deviation(s) :	Yes (see below)

REFERENCE TOXICANT DATA

Toxicant :	Sodium Chloride	Historical Mean LC50 :	6.4 g/L
Date Tested :	2019-10-29	Warning Limits (± 2SD) :	5.7 - 7.1 g/L
LC50 :	6.9 g/L	Organism Batch :	Dm19-21
95% Confidence Limits :	6.6 - 7.3 g/L	Analyst(s) :	KJW, SV, RK, CG
Statistical Method :	Spearman-Kärber		

COMMENTS

All test validity criteria as specified in the test method were satisfied.
Noted Deviation(s): The sample was received at the laboratory 6 days after sampling , therefore, the maximum 5 day sample holding time as specified by the test method was exceeded. The sample was tested at the request of the client.

Date : 2019-11-13
yyyy-mm-dd

Approved By : *Project Manager*

Work Order : 240736
Sample Number : 61357

TEST DATA

	pH	Dissolved O_2 (mg/L)	Conductivity (µmhos/cm)	Temperature (°C)	O_2 Saturation (%)*	Hardness (as $CaCO_3$)
Initial Water Chemistry (100%) :	8.2	9.8	113	20.0	114	40 mg/L

0 HOURS

Date & Time 2019-11-04 15:05
Analyst(s) : KJW/RK (RK)

Concentration (%)	Replicate	Dead	Immobile	pH	Dissolved O_2	Conductivity	Temperature	O_2 Saturation (%)*	Hardness
100	A	0	0	8.0	8.9	106	20.0	102	40
100	B	0	0	8.0	8.9	106	20.0	102	40
100	C	0	0	8.0	8.9	106	20.0	102	40
Control	A	0	0	8.5	8.8	756	20.0	100	200
Control	B	0	0	8.5	8.8	756	20.0	100	200
Control	C	0	0	8.5	8.8	756	20.0	100	200

Notes:

24 HOURS

Date & Time 2019-11-05 15:05
Analyst(s) : SV

Concentration (%)	Replicate	Dead	Immobile	pH	Dissolved O_2	Conductivity	Temperature
100	A	–	0	–	–	–	20.0
100	B	–	0	–	–	–	20.0
100	C	–	0	–	–	–	20.0
Control	A	–	0	–	–	–	20.0
Control	B	–	0	–	–	–	20.0
Control	C	–	0	–	–	–	20.0

Notes: Test organisms in the 100% concentration appeared to be adhered to gas bubbles on the sides and bottom of the test chamber. SV

48 HOURS

Date & Time 2019-11-06 15:05
Analyst(s) : RK/KJW (AW)

Concentration (%)	Replicate	Dead	Immobile	pH	Dissolved O_2	Conductivity	Temperature
100	A	0	0	7.8	8.5	123	20.0
100	B	0	0	7.8	8.5	120	20.0
100	C	0	0	7.8	8.5	128	20.0
Control	A	0	0	8.4	8.4	768	20.0
Control	B	0	0	8.4	8.4	767	20.0
Control	C	0	0	8.4	8.4	768	20.0

Notes: Test organisms in the 100% concentration appeared to be adhered to gas bubbles on the sides and bottom of the test chamber. RK

Number immobile does not include number dead.

– = not measured/not required
* adjusted for temperature and barometric pressure

Test Data Reviewed By : RD
Date : 2019-11-12

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TOXICITY TEST REPORT

Rainbow Trout
EPS 1/RM/13

Work Order : 240736
Sample Number : 61357

SAMPLE IDENTIFICATION

Company :	Agnico Eagle Mines Limited- Meadowbank Division	Date Collected :	2019-10-29
Location :	Baker Lake NU	Time Collected :	17:00
Substance :	ST-MDMER-5	Date Received :	2019-11-04
Sampling Method :	Grab	Time Received :	10:15
Sampled By :	S. Tapp, K. Martee	Temperature on Receipt :	11.0 °C
Sample Description :	Clear, light green, mild odour	Date Tested :	2019-11-04

Test Method(s) : Reference Method for Determining Acute Lethality of Liquid Effluents to Rainbow Trout. Environment Canada, EPS 1/RM/13 (2nd Edition, December 2000, with May 2007 and February 2016 amendments).

96-HOUR TEST RESULTS

Substance	Effect	Value
Control	Mean Impairment	0.0 %
	Mean Mortality	0.0 %
100%	Mean Impairment	0.0 %
	Mean Mortality	0.0 %

The results reported relate only to the sample tested and as received.

TEST ORGANISM

Test Organism :	*Oncorhynchus mykiss*	Average Fork Length (± 2 SD) :	36.1 mm (±5.8)
Organism Batch :	T19-21	Range of Fork Lengths :	32 - 40 mm
Control Sample Size :	10	Average Wet Weight (± 2 SD) :	0.41 g (±0.22)
Cumulative stock tank mortality rate :	0.4% (previous 7 days)	Range of Wet Weights :	0.26 - 0.58 g
Control organisms showing stress :	0 (at test completion)	Organism Loading Rate :	0.2 g/L

TEST CONDITIONS

Sample Treatment :	None	Volume Tested (L) :	22
pH Adjustment :	None	Number of Replicates :	1
Test Aeration :	Yes	Organisms Per Replicate :	10
Pre-aeration/Aeration Rate :	6.5 ± 1 mL/min/L	Organisms Per Test Level :	10
Total Pre-Aeration Time :	30 minutes	Test Method Deviation(s) :	Yes (see below)

REFERENCE TOXICANT DATA

Toxicant :	Potassium Chloride	Date Tested :	2019-11-01
Organism Batch :	T19-21	Historical Mean LC50 :	3589 mg/L
LC50 :	4086 mg/L	Warning Limits (± 2SD) :	2733 - 4714 mg/L
95% Confidence Limits :	3752 - 4449 mg/L	Analyst(s) :	MJT, KP, ALC, MDH
Statistical Method :	Spearman-Kärber		

COMMENTS

•All test validity criteria as specified in the test method were satisfied.
Noted Deviation(s): The sample was received at the laboratory 6 days after sampling , therefore, the maximum 5 day sample holding time as specified by the test method was exceeded. The sample was tested at the request of the client.

Date : 2019-11-13
yyyy-mm-dd

Approved By : *Project Manager*

Work Order : 240736
Sample Number : 61357

TEST DATA

	pH	Dissolved O_2 (mg/L)	Conductivity (µmhos/cm)	Temperature (°C)	O_2 Saturation (%)*
Initial Water Chemistry (100%) :	7.7	9.8	108	14.0	100
After 30 min pre-aeration :	7.7	9.8	109	14.0	100

0 HOURS

Date & Time 2019-11-04 14:30
Analyst(s) : MDH/ALC

Concentration	Dead	Impaired	pH	Dissolved O_2	Conductivity	Temperature	O_2 Saturation*
100%	0	0	7.7	9.8	109	14.0	100
Control	0	0	8.0	9.7	907	14.0	100

Notes:

24 HOURS

Date & Time 2019-11-05 14:30
Analyst(s) : MDH

Concentration	Dead	Impaired	pH	Dissolved O_2	Conductivity	Temperature
100%	0	0	–	–	–	15.0
Control	0	0	–	–	–	15.0

Notes:

48 HOURS

Date & Time 2019-11-06 14:30
Analyst(s) : MJT (KP)

Concentration	Dead	Impaired	pH	Dissolved O_2	Conductivity	Temperature
100%	0	0	–	–	–	15.0
Control	0	0	–	–	–	15.0

Notes:

72 HOURS

Date & Time 2019-11-07 14:30
Analyst(s) : ALC(FS)

Concentration	Dead	Impaired	pH	Dissolved O_2	Conductivity	Temperature
100%	0	0	–	–	–	15.0
Control	0	0	–	–	–	15.0

Notes:

96 HOURS

Date & Time 2019-11-08 14:30
Analyst(s) : ALC(MDH)

Concentration	Dead	Impaired	pH	Dissolved O_2	Conductivity	Temperature
100%	0	0	7.8	9.4	110	15.0
Control	0	0	8.1	9.4	843	15.0

Notes:

"–" = not measured/not required
Number impaired does not include number dead.
* adjusted for temperature and barometric pressure

Test Data Reviewed By : FS
Date : 2019-11-13