



AGNICO EAGLE

November 27th, 2019

Re: Agnico Eagle Meadowbank Mine – Whale Tail Dewatering Discharge Total Suspended Solids Exceedance reported on October 23rd, 2019 - Follow up report (GN #2019-438)

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 23rd, that the level of Total Suspended Solids (TSS) from the Whale Tail Dewatering discharge exceeded the limits, set out in Water License Part D Item 7 and MDMER Schedule 4, of 22.5 mg/L and 30 mg/L, respectively, 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 10th, 2019 at 17:00 CT. The analytical results from the external accredited laboratory for this sampling was received on October 23rd and showed TSS to be at 91 mg/L, exceeding the regulatory limit of 30 mg/L maximum authorized concentration in a grab sample. Previous day's sampling result (October 9th) showed levels to be at 1 mg/L and the subsequent day (October 11th, at 6:50 CT) to be at 5 mg/L.

Toxicity samples were also taken on October 23rd upon reception of exceedance, showing the effluent to be compliant (annexe).

Previous results in October:

Date	TSS (mg/L)
2019/10/08	1.0
2019/10/09	1.0
2019/10/10	91.0
2019/10/11	5.0
2019/10/12	11.0



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Based on a total flow of 4042 m³ between 17:00 on October 10th and 6:50 on October 11th, the quantity of TSS release was estimated at 367.8 kg.

After further investigation, it was assessed that the elevated TSS result was related to very high wind and blizzard conditions exposing the pumping area to these elements. Once wind had subsided, TSS levels had decreased significantly.

A berm was bonified around this section to limit exposure to conditions and decrease potential risk of further impacts.

Given the short duration of potential exceedance between October 10th and 11th, Agnico is confident that the aquatic environment was protected and not impacted. Core receiving environment monitoring in Whale Tail South has been collected and is ongoing and will confirm these findings.

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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General Supervisor Environment



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TOXICITY TEST REPORT

Daphnia magna

EPS 1/RM/14

Page 1 of 2

Work Order : 240674
Sample Number : 61263

SAMPLE IDENTIFICATION

Company :	Agnico Eagle Mines Limited- Meadowbank Division	Date Collected :	2019-10-23
Location :	Baker Lake NU	Time Collected :	06:30
Substance :	ST-MDMER-5	Date Received :	2019-10-25
Sampling Method :	Grab	Time Received :	10:45
Sampled By :	L. Dubois & K. Martee	Temperature on Receipt :	12.0 °C
Sample Description :	Clear, light green, odourless	Date Tested :	2019-10-26

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

Effect	Value	95% Confidence Limits	Calculation Method
LC50	>100%	—	—
EC50	>100%	—	—

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

TEST ORGANISM

Species :	<i>Daphnia magna</i>	Time to First Brood :	8 days
Organism Batch :	Dm19-21	Average Brood Size :	31.7 young
Culture Mortality :	0.4% (previous 7 days)		

TEST CONDITIONS

Sample Treatment :	None	Number of Replicates :	1
pH Adjustment :	None	Organisms / Replicate :	10
Pre-aeration Rate :	~30 mL/min/L	Organisms / Test Level :	10
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) :	None

REFERENCE TOXICANT DATA

Toxicant :	Sodium Chloride	Historical Mean LC50 :	6.4 g/L
Date Tested :	2019-10-29	Warning Limits (\pm 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.

Date :

2019-11-08
yyyy-mm-dd

Approved By :


Project Manager

Work Order: 240674

Sample Number: 61263

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	9.0	110	20.0	103	30

0 hours

Date & Time 2019-10-26 8:25

Analyst(s) : MA/MJT

Concentration (%)	Dead	Immobile	pH	Dissolved O ₂	Conductivity	Temperature	O ₂ Saturation (%)*	Hardness
100	0	0	8.0	8.8	106	20.0	101	30
50	0	0	8.5	8.8	459	20.0	—	—
25	0	0	8.5	8.8	616	20.0	—	—
12.5	0	0	8.5	8.8	685	20.0	—	—
6.25	0	0	8.5	8.8	718	20.0	—	—
Control	0	0	8.5	8.8	755	20.0	100	210

Notes:

24 hours

Date & Time 2019-10-27 8:25

Analyst(s) : VC

Concentration (%)	Dead	Immobile	pH	Dissolved O ₂	Conductivity	Temperature
100	—	0	—	—	—	19.0
50	—	0	—	—	—	19.0
25	—	0	—	—	—	19.0
12.5	—	0	—	—	—	19.0
6.25	—	0	—	—	—	19.0
Control	—	0	—	—	—	19.0

Notes:

48 hours

Date & Time 2019-10-28 8:25

Analyst(s) : CG

Concentration (%)	Dead	Immobile	pH	Dissolved O ₂	Conductivity	Temperature
100	0	0	8.2	8.5	129	19.0
50	0	0	8.4	8.5	471	19.0
25	0	0	8.5	8.5	624	19.0
12.5	0	0	8.5	8.6	696	19.0
6.25	0	0	8.5	8.5	733	19.0
Control	0	0	8.5	8.6	793	19.0

Notes:

Number immobile does not include number of mortalities.

— = not measured/not required

* adjusted for temperature and barometric pressure

Test Data Reviewed By : FS

Date : 2019-10-31



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TOXICITY TEST REPORT

Rainbow Trout

EPS 1/RM/13

Page 1 of 2

Work Order : 240674
Sample Number : 61263

SAMPLE IDENTIFICATION

Company :	Agnico Eagle Mines Limited- Meadowbank Division	Date Collected :	2019-10-23
Location :	Baker Lake NU	Time Collected :	06:30
Substance :	ST-MDMER-5	Date Received :	2019-10-25
Sampling Method :	Grab	Time Received :	10:45
Sampled By :	L. Dubois & K. Martee	Temperature on Receipt :	12.0 °C
Sample Description :	Clear, light green, odourless	Date Tested :	2019-10-25

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

Effect	Value	95% Confidence Limits	Statistical Method
LC50	>100%	—	—

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

TEST ORGANISM

Test Organism :	<i>Oncorhynchus mykiss</i>	Average Fork Length (± 2 SD) :	37.7 mm (± 4.8)
Organism Batch :	T19-22	Range of Fork Lengths :	33 - 41 mm
Control Sample Size :	10	Average Wet Weight (± 2 SD) :	0.47 g (± 0.24)
Cumulative stock tank mortality rate :	0.1% (previous 7 days)	Range of Wet Weights :	0.29 - 0.65 g
Control organisms showing stress :	0 (at test completion)	Organism Loading Rate :	0.2 g/L

TEST CONDITIONS

Sample Treatment :	None	Volume Tested (L) :	20
pH Adjustment :	None	Number of Replicates :	1
Test Aeration :	Yes	Organisms Per Replicate :	10
Pre-aeration/Aeration Rate :	6.5 \pm 1 mL/min/L	Organisms Per Test Level :	10
Total Pre-Aeration Time :	60 minutes	Test Method Deviation(s) :	None

REFERENCE TOXICANT DATA

Toxicant :	Potassium Chloride	Date Tested :	2019-10-18
Organism Batch :	T19-22	Historical Mean LC50 :	3601 mg/L
LC50 :	3022 mg/L	Warning Limits (± 2 SD) :	2824 - 4590 mg/L
95% Confidence Limits :	2677 - 3412 mg/L	Analyst(s) :	MDH, ALC, KP
Statistical Method :	Linear Regression (MLE)		

COMMENTS

*All test validity criteria as specified in the test method were satisfied.

Date : 2019-11-08
yyyy-mm-dd

Approved By :


Project Manager

Work Order : 240674

Sample Number : 61263

TEST DATA

	pH	Dissolved O ₂ (mg/L)	Conductivity (µmhos/cm)	Temperature (°C)	O ₂ Saturation (%)*
Initial Water Chemistry (100%) :	7.9	9.8	109	14.0	100
After 30 min pre-aeration :	7.7	10.0	110	14.0	101

0 HOURS

Date & Time	2019-10-25	14:30					
Analyst(s) :	MDH/KP						
Concentration	Dead	Impaired	pH	Dissolved O ₂	Conductivity	Temperature	O ₂ Saturation*
%							
100	0	0	7.9	9.9	110	14.0	100
50	0	0	8.0	9.8	491	14.5	—
25	0	0	8.0	9.7	660	14.5	—
12.5	0	0	8.0	9.7	740	14.5	—
6.25	0	0	8.1	9.7	783	14.5	—
Control	0	0	8.0	9.6	835	14.5	99
Notes:							

24 HOURS

Date & Time	2019-10-26	14:30					
Analyst(s) :	MDH						
Concentration	Dead	Impaired	pH	Dissolved O ₂	Conductivity	Temperature	
%							
100	0	0	—	—	—	15.0	
50	0	0	—	—	—	15.0	
25	0	0	—	—	—	15.0	
12.5	0	0	—	—	—	15.0	
6.25	0	0	—	—	—	15.0	
Control	0	0	—	—	—	15.0	
Notes:							

48 HOURS

Date & Time	2019-10-27	14:30					
Analyst(s) :	MDH						
Concentration	Dead	Impaired	pH	Dissolved O ₂	Conductivity	Temperature	
%							
100	0	0	—	—	—	15.0	
50	0	0	—	—	—	15.0	
25	0	0	—	—	—	15.0	
12.5	0	0	—	—	—	15.0	
6.25	0	0	—	—	—	15.0	
Control	0	0	—	—	—	15.0	
Notes:							

72 HOURS

Date & Time	2019-10-28	14:30					
Analyst(s) :	ALC (KP)						
Concentration	Dead	Impaired	pH	Dissolved O ₂	Conductivity	Temperature	
%							
100	0	0	—	—	—	15.0	
50	0	0	—	—	—	15.0	
25	0	0	—	—	—	15.0	
12.5	0	0	—	—	—	15.0	
6.25	0	0	—	—	—	15.0	
Control	0	0	—	—	—	15.0	
Notes:							

96 HOURS

Date & Time	2019-10-29	14:30					
Analyst(s) :	KP						
Concentration	Dead	Impaired	pH	Dissolved O ₂	Conductivity	Temperature	
%							
100	0	0	7.3	9.3	116	14.5	
50	0	0	7.9	9.1	498	14.5	
25	0	0	8.1	9.1	665	14.5	
12.5	0	0	8.1	9.1	746	14.5	
6.25	0	0	8.1	9.3	764	14.5	
Control	0	0	8.1	9.0	792	14.5	
Notes:							

"—" = not measured/not required

Number impaired does not include number dead.

* adjusted for temperature and barometric pressure

Test Data Reviewed By : FS

Date : 2019-10-31