

Appendix 15 : 2020 Reportable Spills

Appendix F-3
Reportable Spills and Follow-up Reports



Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR 01-15-2020	REPORT TIME 07:00	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER 20 - 010
B	OCCURRENCE DATE: MONTH – DAY – YEAR 01-14-2020	OCCURRENCE TIME 07:00			
C	LAND USE PERMIT NUMBER (IF APPLICABLE) KVPL11D01	WATER LICENCE NUMBER (IF APPLICABLE) 2AM-MEL1631			
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Meliadine Gold Project	REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN			
E	LATITUDE DEGREES 63 MINUTES 1 SECONDS 17	LONGITUDE DEGREES 92 MINUTES 13 SECONDS 58			
F	RESPONSIBLE PARTY OR VESSEL NAME Agnico Eagle Mines Ltd.	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Meliadine, Rankin Inlet, Nunavut, X0C 0G0			
G	ANY CONTRACTOR INVOLVED CMAC	CONTRACTOR ADDRESS OR OFFICE LOCATION			
H	PRODUCT SPILLED Hydraulic Oil	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 190 Litres	U.N. NUMBER UN1268		
	SECOND PRODUCT SPILLED (IF APPLICABLE) N/A	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES N/A	U.N. NUMBER N/A		
I	SPILL SOURCE 130 tonne Grove Crane	SPILL CAUSE Hydraulic Hose Failure	AREA OF CONTAMINATION IN SQUARE METRES 4		
J	FACTORS AFFECTING SPILL OR RECOVERY N/A	DESCRIBE ANY ASSISTANCE REQUIRED N/A	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT Explosive/flammable material		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS 130 tonne Grove Crane was started and was warming up, at the West Exhaust Raise, when oil was seen leaking from the crane enclosure. The operator was notified of the leak and shut the machine down immediately. Spill pads were placed on the ground to soak up the oil, once the crane can be removed, a full clean-up will be completed. Preliminary investigation indicates that approximately 190 litres of oil spilled to the ground. Due to the shape of the pad the oil was contained in a small area. No water bodies were impacted by the spill. The closest water body is approximately 220 metres from the spill location. A follow-up report will be issued after a closer investigation is completed. Contact Person: Terence (Terry) Ternes 819-759-3555 Ext. 4603112				
L	REPORTED TO SPILL LINE BY Terry Ternes	POSITION Env. Supervisor	EMPLOYER AEM	LOCATION CALLING FROM Meliadine	TELEPHONE 8197593555
M	ANY ALTERNATE CONTACT Sean Arruda	POSITION Env. Corrdinator	EMPLOYER AEM	ALTERNATE CONTACT Meliadine LOCATION	ALTERNATE TELEPHONE 8197593555
REPORT LINE USE ONLY					
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS	
LEAD AGENCY					
FIRST SUPPORT AGENCY					
SECOND SUPPORT AGENCY					
THIRD SUPPORT AGENCY					

Follow Up Report: #20-010

January 14, 2020 Hydraulic Oil Spill



The following information refers to spill 20-010 reported by Agnico Eagle Mines Ltd. on January 14, and is being provided in accordance with:

- the Nunavut Water Board License 2AM-MEL1631 Water License, part H, item 8c

Description of Incident:

On January 14th at approximately 7 am, the 130 tonne Grove Crane was started up at the West Exhaust Raise and the crane operator began warming up the hydraulic components. The operator was notified that there was oil leaking from the crane enclosure. The operator shut the crane down immediately and went outside to investigate. It was noticed that a hydraulic line had ruptured.

The initial investigation completed by the Environment Department indicated that the contaminated surface area was approximately 4 m² with the spill located at 63°01'17"N, 92°13'58"W, approximately 220 m from the closest natural water body. Discussions with the maintenance department indicated that they placed 190 L of oil back into the machine and added an additional 10 L when the oil recirculated through the hoses. It is estimated that approximately 200 L of oil was spilled to the ground with the oil being contained on the crane pad.



Figure 1: Approximate location of 200L hydraulic oil spill.

Spill Response & Cleanup:

The crane operator shut down the engine, placed absorbent spill pads and contacted the Maintenance Department to provide further assistance. Comprehensive cleanup was delayed until the crane could be removed. Once the crane was removed, the Energy and Infrastructure department completed the cleanup, using an excavator bucket to break the ice and collect the contaminated snow. Spill pads were disposed of as hazmat and contaminated snow was transported to the landfarm.



Figure 2: Spill and initial clean-up efforts at West Exhaust Raise.



Figure 3: Spill location following clean up, 30th January and 2nd February (left to right).

Corrective Measures


The hydraulic hose was inspected by the maintenance department and it was determined that there was some chaffing on the hose which may have caused a premature failure. Due to the location of the hose, a pre-start inspection would not have detected this issue. The maintenance department inspects hydraulic hoses during scheduled preventative maintenance, and replaces them as required. Operators inspect equipment for leaks during pre-start inspections. The maintenance department will continue to inspect and monitor this specific component and assess alternative options in the event of reoccurrence.



Dan Gorton | Environmental Coordinator

dan.gorton@agnicoeagle.com | Direct 819.759.3555 x4603996 |

Agnico Eagle Mines Limited - Meliadine Mine, Suite 879 - Rankin Inlet, Nunavut, Canada X0C 0G0

agnicoeagle.com    



Canada

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TEL: (867) 920-8130

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EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR 01-26-2020		REPORT TIME 08:30		<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER 20 - 023
B	OCCURRENCE DATE: MONTH – DAY – YEAR 01-24-2020		OCCURRENCE TIME 08:30			
C	LAND USE PERMIT NUMBER (IF APPLICABLE) KVPL11D01			WATER LICENCE NUMBER (IF APPLICABLE) 2AM-MEL1631		
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Meliadine Gold Project			REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES 63 MINUTES 1 SECONDS 34			LONGITUDE DEGREES 92 MINUTES 12 SECONDS 38		
F	RESPONSIBLE PARTY OR VESSEL NAME Agnico Eagle Mines Ltd.		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Meliadine, Rankin Inlet, Nunavut, X0C 0G0			
G	ANY CONTRACTOR INVOLVED		CONTRACTOR ADDRESS OR OFFICE LOCATION			
H	PRODUCT SPILLED Lime		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 50L		U.N. NUMBER N/A	
	SECOND PRODUCT SPILLED (IF APPLICABLE) N/A		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES N/A		U.N. NUMBER N/A	
I	SPILL SOURCE Pipeline		SPILL CAUSE Equipment failure		AREA OF CONTAMINATION IN SQUARE METRES 25	
J	FACTORS AFFECTING SPILL OR RECOVERY N/A		DESCRIBE ANY ASSISTANCE REQUIRED N/A		HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT Corrosive Substance	
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS Approximately 50L of 20% calcium oxide (lime) solution spilled to ground on the northern side of the process plant. The material and spilled product was picked up and disposed of in the mill sump, to be returned into the process. No water bodies were impacted by this spill. The closest water body is approximately 496m from the spill location. Pursuant to Part H, section 8c of the water license, a follow-up report will be issued after a closer investigation is completed.					
L	REPORTED TO SPILL LINE BY Dan Gorton	POSITION Env. Coordinator	EMPLOYER AEM	LOCATION CALLING FROM Meliadine	TELEPHONE 8197593555	
M	ANY ALTERNATE CONTACT Terry Ternes	POSITION Env. Supervisor	EMPLOYER AEM	ALTERNATE CONTACT Meliadine LOCATION	ALTERNATE TELEPHONE 8197593555	
REPORT LINE USE ONLY						
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130	
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED	
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS		
LEAD AGENCY						
FIRST SUPPORT AGENCY						
SECOND SUPPORT AGENCY						
THIRD SUPPORT AGENCY						

Follow Up Report: #20-023

January 24th, 2020 Calcium Hydroxide Spill



The following information refers to spill 20-023 reported by Agnico Eagle Mines Ltd. January 24th, 2020, and is being provided in accordance with:

- the Nunavut Water Board License 2AM-MEL1631 Water License, part H, item 8c

Description of Incident:

On January 24th the Environment Department was contacted by a worker at the Process Plant informing that 50 L of 20 % liquid calcium hydroxide had spilled to the ground. A dosing pipe seal ruptured on a pressurized line, causing the solution to spray onto the interior wall of the process plant above the concrete secondary containment. As the solution flowed down the aluminum cladding walls to the concrete containment, some seeped out between the cladding and the concrete, which then flowed onto the industrial pad.

No water bodies were impacted by this spill. The closest natural water body is over 460 m from the spill location. The coordinates of the spill are 63° 2'16.77"N, 92°13'38.26"W.



Figure 1: Location of 20 % calcium hydroxide solution spill on the northern side of the process plant.



Figure 2: Calcium Hydroxide solution sprayed from the ruptured seal (circled) and seeped out between the cladding and concrete (arrow).



Figure 3: 50 L of 20 % Calcium Hydroxide prior to clean-up.

Spill Response & Clean-up:

Mill personnel shut down the pump and tagged out the system to prevent further spillage. Material spilled outside of the building was collected using a telehandler, and placed in the mill sump. This material reentered the process and no further disposal considerations were required.

Corrective Measures:

Parts are on order to replace the damaged seal. The pump was removed and reinstalled on the backup dosing line. The installation of spray guards has been recommended and feasibility is being evaluated.



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TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR 02-20-2020		REPORT TIME 7:00		<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER 20 - 052
	B	OCCURRENCE DATE: MONTH – DAY – YEAR 02-19-2020		OCCURRENCE TIME 11:00		
C		LAND USE PERMIT NUMBER (IF APPLICABLE) KVPL11D01			WATER LICENCE NUMBER (IF APPLICABLE) 2AM-MEL1631	
	D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Meliadine Gold Project			REGION <input type="checkbox"/> NWT <input type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN	
E		LATITUDE DEGREES 63 MINUTES 1 SECONDS 34			LONGITUDE DEGREES 92 MINUTES 12 SECONDS 37	
	F	RESPONSIBLE PARTY OR VESSEL NAME Agnico Eagle Mines Ltd.		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Meliadine, Rankin Inlet, Nunavut, X0C 0G0		
G		ANY CONTRACTOR INVOLVED		CONTRACTOR ADDRESS OR OFFICE LOCATION		
	H	PRODUCT SPILLED Saline water		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES Unknown	U.N. NUMBER N/A	
I		SECOND PRODUCT SPILLED (IF APPLICABLE) N/A		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES N/A	U.N. NUMBER N/A	
	J	SPILL SOURCE SWTP Process		SPILL CAUSE Crack in cement floor		AREA OF CONTAMINATION IN SQUARE METRES Unknown
K		FACTORS AFFECTING SPILL OR RECOVERY Water is under the building		DESCRIBE ANY ASSISTANCE REQUIRED N/A		HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT N/A
	L	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS				
M		<p>It was brought to our attention that there is a crack in the floor of the SWTP. During normal operations, some process water can accumulate on the floor and migrate towards the crack. It is suspected that the water eventually drains through the crack reaching the gravel pad underneath. It is important to note that the water will eventually drain towards CP5, therefore no contamination will leave the site footprint and no water bodies are impacted.</p> <p>An investigation is currently underway to assess the amount of water that has potentially migrated through the crack.</p> <p>Pursuant to Part H, section 8c of the water license, a follow-up report will be issued after a closer investigation is completed.</p>				
	N	REPORTED TO SPILL LINE BY Sean Arruda	POSITION Env. Coordinator	EMPLOYER AEM	LOCATION CALLING FROM Meliadine	TELEPHONE 819-759-3555
ANY ALTERNATE CONTACT Dan Gorton		POSITION Env. Coordinator	EMPLOYER AEM	ALTERNATE CONTACT Meliadine LOCATION	ALTERNATE TELEPHONE 819-759-3555	
REPORT LINE USE ONLY						
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130	
	LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS		
LEAD AGENCY						
FIRST SUPPORT AGENCY						
SECOND SUPPORT AGENCY						
THIRD SUPPORT AGENCY						

Follow Up Report: #20-052

February 19, 2020 Saline Water Spill



The following information refers to spill 20-052 reported by Agnico Eagle Mines Ltd. February 20th, 2020, and is being provided in accordance with:

- the Nunavut Water Board License 2AM-MEL1631 Water License, part H, item 8c

Description of Incident:

On February 19th the Environment Department was informed that a crack in the floor of the Saline Water Treatment Plant (SWTP) had been identified which allowed saline water to seep through the foundation. It is estimated that a cumulative volume of approximately 300 m³ of saline water may have seeped through the building's secondary containment over a period of approximately 6 months. The spill occurred at the final tank in the salt removal process when a level sensor malfunctioned causing the tank to overflow.

No water bodies were impacted by this spill. The closest natural water body is over 875 m from the spill location. The coordinates of the spill are 63° 1'33.22"N, 92°12'36.20"W.



Figure 1: Location of saline water spill on eastern side of Saline Water Treatment Plant.



Figure 2: Cracked concrete foundation saline water flowed through (left) and repairs made 1st March 2020 (right).

Spill Response & Clean-up:

A building inspection was completed by a contracted engineer, who identified a cavity beneath the concrete flooring. Holes were drilled through the flooring to examine the extent of the cavity to remove any free standing water, if present. No free standing water was observed during the time of the inspection.

Corrective Measures:

Repairs were completed 1st March 2020, to prevent any future saline water spillage entering the active layer. Concrete grout was pumped into the cavity and will be finished with a waterproof epoxy coating to prevent further damage to the foundation. Adjustments were made to level sensors and communication to workers included the importance of respecting the levels in the process tanks. Preventative maintenance will be performed to ensure sensors are clean and free of salt build-up.





Weekly inspections by the plant operators will be completed which will include photo documentation of areas susceptible to future cracks. Any future cracks will be repaired immediately upon detection.



Sean Arruda | Environmental Coordinator

sean.arruda@agnicoeagle.com | Direct 819.759.3555 x4603996 |

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TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR 03-09-2020		REPORT TIME 14:30		<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER 20 - 073
B	OCCURRENCE DATE: MONTH – DAY – YEAR 03-08-2020		OCCURRENCE TIME 20:00			
C	LAND USE PERMIT NUMBER (IF APPLICABLE) KVPL11D01			WATER LICENCE NUMBER (IF APPLICABLE) 2AM-MEL1631		
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Meliadine Gold Project			REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES 63 MINUTES 1 SECONDS 53			LONGITUDE DEGREES 92 MINUTES 12 SECONDS 44		
F	RESPONSIBLE PARTY OR VESSEL NAME Agnico Eagle Mines Ltd.		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Meliadine, Rankin Inlet, Nunavut, X0C 0G0			
G	ANY CONTRACTOR INVOLVED N/A		CONTRACTOR ADDRESS OR OFFICE LOCATION N/A			
H	PRODUCT SPILLED Engine Oil		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 1 cubic meter		U.N. NUMBER N/A	
	SECOND PRODUCT SPILLED (IF APPLICABLE) N/A		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES N/A		U.N. NUMBER N/A	
I	SPILL SOURCE Storage Tote		SPILL CAUSE Operator Error		AREA OF CONTAMINATION IN SQUARE METRES 30	
J	FACTORS AFFECTING SPILL OR RECOVERY Low Temperature		DESCRIBE ANY ASSISTANCE REQUIRED N/A		HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT N/A	
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS While unloading a tote of engine oil from a seacan, the operator accidentally punctured the tote with the equipment's fork. The entire tote of oil drained inside the seacan, and migrated out onto the gravel pad. The spill is in the process of being cleaned up and area decontaminated. An investigation will follow. No water bodies were impacted by this spill. The closest natural water body is approximately 900m away. Pursuant to Part H, section 8c of the water license, a follow-up report will be issued after a closer investigation is completed. Reported by Sean Arruda, Environmental Coordinator, 819-759-3555 ext. 4603996 sean.arruda@agnicoeagle.com					
L	REPORTED TO SPILL LINE BY Sean Arruda	POSITION Env. Coordinator	EMPLOYER AEM	LOCATION CALLING FROM Meliadine	TELEPHONE 819-759-3555	
M	ANY ALTERNATE CONTACT Dan Gorton	POSITION Env. Coordinator	EMPLOYER AEM	ALTERNATE CONTACT Meliadine LOCATION	ALTERNATE TELEPHONE 819-759-3555	
REPORT LINE USE ONLY						
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130	
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED	
AGENCY		CONTACT NAME		CONTACT TIME		REMARKS
LEAD AGENCY						
FIRST SUPPORT AGENCY						
SECOND SUPPORT AGENCY						
THIRD SUPPORT AGENCY						

Follow Up Report: #20-073

March 8, 2020 Engine Oil Tote Spill



The following information refers to spill 20-073 reported by Agnico Eagle Mines Ltd. March 9th, 2020, and is being provided in accordance with:

- the Nunavut Water Board License 2AM-MEL1631 Water License, part H, item 8c

Description of Incident:

On the morning of March 9, 2020, the warehouse supervisor was notified that a spill had occurred at 8 pm during night shift (March 8). The supervisor notified the Environment Department right away, and Environment staff visited the site to begin an investigation.

The incident occurred when a warehouse worker was attempting to retrieve a full, 1000 L tote containing engine oil, from inside a sea-can. While attempting to align the equipment's forks into the tote, the operator accidentally crushed and punctured a corner of the tote, which led to the release of the contents inside the sea-can. The tote was located in the back of the sea-can, so a large amount of oil settled on the floor inside, while the rest slowly flowed outside onto the gravel pad.



Figure 1: Spill site the morning of March 9, 2020.

No water bodies were impacted by this spill. The closest natural water body is over 900 m from the spill location. The coordinates of the spill are 63° 01'53"N, 92°12'44"W (Figure 2).



Figure 2: Spill location at warehouse sea-can laydown.

Spill Response & Clean-up:

The worker involved used absorbent pads to soak up the material prevent further spillage (Figure 3, left). Low temperatures increased the viscosity of the oil, slowing the flow, which reduced the effectiveness of the absorbent pads. Oil-Dri Quicksorb powder was then used to help coagulate the remaining standing oil (Figure 3, right).



Figure 3: Initial clean up response, absorbing and slowing the spread of the oil.

Used absorbent pads and Oil-Dri Quicksorb was disposed of as hazmat in Quatrex bags. Sea-cans impeding the clean-up were removed from the area. A loader was used to scrape the surface and remove 7 m³ of contaminated material from the spill site. The contaminated material was placed in the landfarm.







Figure 4: Initial clean-up of the area after sea-cans removed and loader began removing material (Left). Contaminated material brought to the landfarm (Right).

Corrective Measures:

After investigation, it was determined that the operator was working alone while attempting to retrieve the tote, and using equipment that they were not as familiar with for this specific job (Telehandler). The usual equipment (Manitou) was undergoing maintenance at the time. The visibility from the Telehandler is low, especially at night while attempting to retrieve an item from the back of a sea-can.

To mitigate this risk in the future, the warehouse will be implementing a new working policy where they will not conduct any oil-tote deliveries at night while it is dark, and will not perform this task without a spotter. If the worker had had a spotter, and the area had better lighting, they would have had better visibility of the forks and could have avoided the spill.



Sean Arruda | Environmental Coordinator
sean.arruda@agnicoeagle.com | Direct 819.759.3555 x4603996 |
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agnicoeagle.com    



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A	REPORT DATE: MONTH – DAY – YEAR 03-29-2020	REPORT TIME 07:30	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER 20 - _____
B	OCCURRENCE DATE: MONTH – DAY – YEAR 03-28-2020	OCCURRENCE TIME 15:00			
C	LAND USE PERMIT NUMBER (IF APPLICABLE) KVPL11D01	WATER LICENCE NUMBER (IF APPLICABLE) 2AM-MEL1631			
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Meliadine Gold Project		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES 63 MINUTES 2 SECONDS 55		LONGITUDE DEGREES 92 MINUTES 15 SECONDS 88		
F	RESPONSIBLE PARTY OR VESSEL NAME Agnico Eagle Mines Ltd.	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Meliadine, Rankin Inlet, Nunavut, X0C 0G0			
G	ANY CONTRACTOR INVOLVED Dyno Nobel	CONTRACTOR ADDRESS OR OFFICE LOCATION Meliadine, Rankin Inlet, Nunavut, X0C 0G0			
H	PRODUCT SPILLED Emulsion	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 400L	U.N. NUMBER 3375		
	SECOND PRODUCT SPILLED (IF APPLICABLE) N/A	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES N/A	U.N. NUMBER N/A		
I	SPILL SOURCE Emulsion Bin	SPILL CAUSE Operator Error	AREA OF CONTAMINATION IN SQUARE METRES 5		
J	FACTORS AFFECTING SPILL OR RECOVERY N/A	DESCRIBE ANY ASSISTANCE REQUIRED N/A	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT N/A		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS When refilling an emulsion bin a leak was identified. Approximately 400L of emulsion had spilled onto the gravel pad. The spill is in the process of being cleaned up and the area decontaminated. An investigation will follow. No water bodies were impacted by this spill. The closest natural water body is approximately 550m away. Pursuant to Part H, section 8c of the water license, a follow-up report will be issued after a closer investigation is completed. Reported by Dan Gorton, Environmental Coordinator, 819-759-3555 ext. 4603996 dan.gorton@agnicoeagle.com				
L	REPORTED TO SPILL LINE BY Dan Gorton	POSITION Env. Coordinator	EMPLOYER AEM	LOCATION CALLING FROM Meliadine	TELEPHONE 819-759-3555
M	ANY ALTERNATE CONTACT Sean Arruda	POSITION Env. Coordinator	EMPLOYER AEM	ALTERNATE CONTACT Meliadine LOCATION	ALTERNATE TELEPHONE 819-759-3555
REPORT LINE USE ONLY					
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS	
LEAD AGENCY					
FIRST SUPPORT AGENCY					
SECOND SUPPORT AGENCY					
THIRD SUPPORT AGENCY					

Follow Up Report: #20-087

March 28th 2020, Emulsion Spill



The following information refers to spill 20-087 reported by Agnico Eagle Mines Ltd. March 29th 2020, and is being provided in accordance with:

- the Nunavut Water Board License 2AM-MEL1631 Water License, part H, item 8c
- the Government of Nunavut's, Environmental Protection Act subsection 5.1(a)

Description of Incident:

On March 28th at approximately 3:00 pm, an estimated 400 L of emulsion was spilled on the western side of the emulsion plant. A tele-handler operator punctured an empty emulsion bin while loading it onto the flat-bed truck for transport from underground to surface. The damage was not reported by the operator and was not seen by emulsion plant personnel prior to refilling. As the emulsion plant operator began refilling the bin he noticed the leak and shut down the system immediately. Approximately 400 L of emulsion spilled to the compacted gravel industrial pad, which was frozen at the time of occurrence, preventing residue infiltrating the ground. The spilled emulsion was contained within a 5 m² area due to the viscosity of the product.

No water bodies were impacted by this spill. The closest natural water body is over 550 m from the spill location. The coordinates of the spill are 63° 2'41.91"N, 92°15'26.42"W (Figure 1).



Figure 1: Location of 400 L emulsion spill and proximity to water bodies.

Spill Response & Cleanup:

Emulsion plant personnel determined that there was no risk of ignition prior to responding to the spill. The product spilled was Titan 7000 RU (UN0332), which has a division 1.5 blast sensitivity rating (very insensitive). This product requires high pressure and a heat source for detonation. No pressure or heat source was present at the time of the spill. The bin was punctured while empty and the bins are not pressurized in the refilling process.

Emulsion plant personnel removed the damaged bin from the flat-rack using a forklift, and drained the emulsion from the damaged bin into another bin (Figure 2). The flat-rack was moved using a hyster, to provide access to the spill (Figure 3). Spilled emulsion was pumped into an emulsion bin for reprocessing and reuse (Figure 4). A bobcat was used to scrape remaining emulsion residue from the ground. This material was brought back into the emulsion plant and neutralized.



Figure 2: Forklift removing emulsion bin from flat-rack.



Figure 3: Hyster removing flat-rack from spill area.



Figure 4: Spilled emulsion being pumped to emulsion bin.



Figure 5: Spill area following clean up.

Corrective Measures

The Environment Department held a follow-up meeting with the Mine Department and Dyno Nobel (Emulsion Contractor) to discuss the cause and corrective measures. Operators loading and unloading emulsion bins will now require a spotter to ensure forks are correctly positioned under emulsion bins. Flat-racks used to transport emulsion bins between the emulsion plant are now equipped with dividers, to ensure all sides of the bin can be thoroughly inspected prior to filling (Figure 6). Bins must be placed on the flat-rack with valves facing out to provide quick access in the event of a hose connection failure.




Figure 6: Steel dividers installed to improve visibility during pre-loading inspection.



Dan Gorton | Environmental Coordinator

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A	REPORT DATE: MONTH – DAY – YEAR 05-04-2020		REPORT TIME 14:00		<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
	B	OCCURRENCE DATE: MONTH – DAY – YEAR 05-04-2020		OCCURRENCE TIME 03:30		
C		LAND USE PERMIT NUMBER (IF APPLICABLE) KVPL11D01			WATER LICENCE NUMBER (IF APPLICABLE) 2AM-MEL1631	
	D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Meliadine Gold Project			REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN	
E		LATITUDE DEGREES 63 MINUTES 1 SECONDS 16			LONGITUDE DEGREES 92 MINUTES 12 SECONDS 34	
	F	RESPONSIBLE PARTY OR VESSEL NAME Agnico Eagle Mines Ltd.		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Meliadine, Rankin Inlet, Nunavut, X0C 0G0		
G		ANY CONTRACTOR INVOLVED N/A		CONTRACTOR ADDRESS OR OFFICE LOCATION N/A		
	H	PRODUCT SPILLED Emulsion		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 800L	U.N. NUMBER 3375	
I		SECOND PRODUCT SPILLED (IF APPLICABLE) N/A		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES N/A	U.N. NUMBER N/A	
	J	SPILL SOURCE Emulsion Bin		SPILL CAUSE Human Error		AREA OF CONTAMINATION IN SQUARE METRES 10
K		FACTORS AFFECTING SPILL OR RECOVERY N/A		DESCRIBE ANY ASSISTANCE REQUIRED N/A		HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT N/A
	L	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS Approximately 800L of emulsion was spilled on the gravel transfer pad beside Portal 1. While removing a bin of emulsion from the flat rack, the operator was unaware that one fork had been improperly placed below the bin. When backing up, the improperly secured bin tipped off of the forks and landed on its side breaking off the lid. No water bodies were impacted by this spill. The closest water body was approximately 1km away. Pursuant to Part H, Section 8c of the water license, a follow-up report will be issued after a closer investigation is completed. Reported by Sean Arruda, Environmental Coordinator, 819-759-3555 ext. 4603996 sean.arruda@agnicoeagle.com				
M		REPORTED TO SPILL LINE BY Sean Arruda	POSITION Env. Coordinator	EMPLOYER AEM	LOCATION CALLING FROM Meliadine	TELEPHONE 819-759-3555
	N	ANY ALTERNATE CONTACT Dan Gorton	POSITION Env. Coordinator	EMPLOYER AEM	ALTERNATE CONTACT Meliadine	ALTERNATE TELEPHONE 819-759-3555
REPORT LINE USE ONLY						
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130	
	LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS		
LEAD AGENCY						
FIRST SUPPORT AGENCY						
SECOND SUPPORT AGENCY						
THIRD SUPPORT AGENCY						

Follow Up Report: #20-121

May 4th 2020, Emulsion Spill



The following information refers to spill 20-121 reported by Agnico Eagle Mines Ltd. May 4th 2020, and is being provided in accordance with:

- the Nunavut Water Board License 2AM-MEL1631 Water License, part H, item 8c
- the Government of Nunavut's, Environmental Protection Act subsection 5.1(a)

Description of Incident:

On May 4th at approximately 3:30 am, an estimated 800 L of emulsion was spilled on the gravel transfer pad just outside of Portal 1 (Figure 1). While attempting to remove the emulsion bin from the flat rack, the operator was not aware that one of their forks had been improperly placed below the bin, as opposed to being properly inserted through the fork slot. When they backed up with the full bin, it tipped off of the forks and fell onto its side, popping off the lid, and spilling the contents on the ground. The emulsion poured out over an area of about 10 m².

No water bodies were impacted by this spill. The closest natural water body (Lake B7) is over 1000 m from the spill location. The coordinates of the spill are 63° 1'16"N, 92°12'34"W (Figure 1).



Figure 1: Location of 800 L emulsion spill.

Spill Response & Cleanup:

After the spill occurred, the mine workers taped off the area with caution tape and covered the spilled product with gravel. At 6 a.m. the Environment Department was notified of the spill. Emulsion plant personnel determined that there was no risk of ignition prior to responding to the spill. The product spilled was Titan 7000 RU (UN0332), which has a division 1.5 blast sensitivity rating (very insensitive). This product requires high pressure and a heat source for detonation. No pressure or heat source was present at the time of the spill.

Upon arrival that morning at the site, the DYNO Nobel team had begun scooping the contaminated gravel and emulsion into quatrex bags. Normally, as much of the raw product as possible that can be recovered will be used again. Since this material was mixed with gravel, everything that was removed is now slowly being destroyed by packing the gravel-emulsion mix into blast holes where it is then detonated. It will take several weeks to properly destroy the remaining material.



Figure 2: Initial spill scene just after 3:30 a.m.



Figure 3: Photos taken at 7:22 a.m. Spill recovery was underway and material was being moved into quatrex bags to be stored at the DYNO Nobel emulsion plant.

Corrective Measures





The Environment Department held additional toolbox meetings with the underground mine department, to further discuss methods for spill prevention, the importance of using a spotter, and ensuring that loads are secure before moving them. Since this specific incident had the potential to cause injury if there had been a worker next to the bin, this incident was also reported to the Health and Safety Department. Supervisor job task observations are being completed in order to improve the training for this task. In addition, a long-term solution for an improved emulsion handling and distribution system is currently being investigated.



Sean Arruda | Environmental Coordinator

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A	REPORT DATE: MONTH – DAY – YEAR 06-04-2020		REPORT TIME 16:00		<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
	B	OCCURRENCE DATE: MONTH – DAY – YEAR 06-03-2020		OCCURRENCE TIME 18:00		
C		LAND USE PERMIT NUMBER (IF APPLICABLE) KVPL11D01			WATER LICENCE NUMBER (IF APPLICABLE) 2AM-MEL1631	
	D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Meliadine Gold Project			REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN	
E		LATITUDE DEGREES 63 MINUTES 1 SECONDS 39			LONGITUDE DEGREES 92 MINUTES 12 SECONDS 11	
	F	RESPONSIBLE PARTY OR VESSEL NAME Agnico Eagle Mines Ltd.		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Meliadine, Rankin Inlet, Nunavut, X0C 0G0		
G		ANY CONTRACTOR INVOLVED N/A		CONTRACTOR ADDRESS OR OFFICE LOCATION N/A		
	H	PRODUCT SPILLED Surface runoff (snow melt)		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES Approximately 10 m3		U.N. NUMBER N/A
I		SECOND PRODUCT SPILLED (IF APPLICABLE) N/A		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES N/A		U.N. NUMBER N/A
	J	SPILL SOURCE Water transfer pipeline		SPILL CAUSE Equipment malfunction		AREA OF CONTAMINATION IN SQUARE METRES 2,000 (CP6 catchment)
K		FACTORS AFFECTING SPILL OR RECOVERY N/A		DESCRIBE ANY ASSISTANCE REQUIRED N/A		HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT N/A
	L	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS Surface runoff water on site was being conveyed via a pipeline in preparation for freshet. An accidental release occurred from a cracked flange, resulting in water spilling to ground towards CP6. No water migrated off-site. The closest water body is approximately 480 metres. This report is being issued for due diligence purposes as it is not expected to have an environmental impact due to the released material being surface runoff water originating from snow melt. Pursuant to Part H, Section 8c of the water license, a follow-up report will be issued after a closer investigation is completed. Reported by Jessica Huza, Environment Superintendent, 819-856-5097, jessica.huza@agnicoeagle.com				
M		REPORTED TO SPILL LINE BY Jessica Huza	POSITION Superintendent	EMPLOYER AEM	LOCATION CALLING FROM Meliadine	TELEPHONE 819-856-5097
	N	ANY ALTERNATE CONTACT Matt Gillman	POSITION Coordinator	EMPLOYER AEM	ALTERNATE CONTACT Meliadine	ALTERNATE TELEPHONE 819-759-3555
REPORT LINE USE ONLY						
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130	
	LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME		CONTACT TIME		REMARKS
LEAD AGENCY						
FIRST SUPPORT AGENCY						
SECOND SUPPORT AGENCY						
THIRD SUPPORT AGENCY						

Follow Up Report: #20-164

June 3rd 2020, Saline Water Spill



The following information refers to spill 20-164 reported by Agnico Eagle Mines Ltd. June 4th 2020, and is being provided in accordance with:

- the Nunavut Water Board License 2AM-MEL1631 Water License, part H, item 8c
- the Government of Nunavut's, Environmental Protection Act subsection 5.1(a)

Description of Incident:

On June 3rd, at approximately 6:00 pm, an estimated 10 m³ of surface water run-off was spilled as water was being conveyed via a waterline in preparation for freshet. An accidental release occurred from a cracked flange, resulting in water spilling to the ground and flowing towards Containment Pond 6 (CP6). No water migrated off-site. The closest water body is approximately 480 m away. The coordinates of the spill are 63° 1'39.00"N, 92°12'11.00"W (Figure 1).



Figure 1: Location of spill.

Spill Response & Cleanup:

No clean-up was required as the surface water flowed back into CP6, which is part of the sites' managed water system. The source of the surface water run-off was CP5 which is a licensed compliance monitoring location (Mel-22). A sample was collected from Mel-22 at the time of the spill, and showed no results of concern (Table 1). The flange was repaired and pumping continued.

Table 1: MEL-22 water quality analysis collected 3 June 2020

Parameter	Result	Unit
Total Ammonia	2.7	mg/L
Conductivity	620	umho/cm
Total Dissolved Solids	385	mg/L
Total Suspended Solids	18	mg/L
Total Oil and Grease	<0.50	mg/L

Corrective Measures





The Energy and Infrastructure department replaced the cracked flange and completed a full inspection of the line prior to start-up. When the line was brought back into service, Mine personnel remained at the point of the spill to ensure that the replaced flange was operating properly. No issues were observed.



Sean Arruda | Environmental Coordinator

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EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR 06-27-2020	REPORT TIME 17:00	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER _____
B	OCCURRENCE DATE: MONTH – DAY – YEAR 06-27-2020	OCCURRENCE TIME 02:30			
C	LAND USE PERMIT NUMBER (IF APPLICABLE) KVPL11D01	WATER LICENCE NUMBER (IF APPLICABLE) 2BB-MEL-1424			
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Meliadine Gold Project		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES 63 MINUTES 1 SECONDS 41		LONGITUDE DEGREES 92 MINUTES 10 SECONDS 21		
F	RESPONSIBLE PARTY OR VESSEL NAME Agnico Eagle Mines Ltd.	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Meliadine, Rankin Inlet, Nunavut, X0C 0G0			
G	ANY CONTRACTOR INVOLVED Orbit Garant	CONTRACTOR ADDRESS OR OFFICE LOCATION Val d'Or, Quebec			
H	PRODUCT SPILLED Jet A Fuel	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 205	U.N. NUMBER 1863		
	SECOND PRODUCT SPILLED (IF APPLICABLE) Waste oil/diesel	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 100	U.N. NUMBER 1202		
I	SPILL SOURCE Steel Drum	SPILL CAUSE Failure to follow procedure	AREA OF CONTAMINATION IN SQUARE METRES 5		
J	FACTORS AFFECTING SPILL OR RECOVERY Recent rain accumulation	DESCRIBE ANY ASSISTANCE REQUIRED N/A	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT Flammable liquid / vapours		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS While offloading drums of Jet A fuel from a flat rack trailer at the Exploration camp, the operator had one fork go over the top of the pallet and puncture a drum. The entire drum released onto the road area but was immediately contained. While responding to this event, Environment personnel noticed hydrocarbon seepage/sheen coming from within a locked sea-can, and migrating into the Jet A spill. A damaged waste oil/diesel drum which partially drained over an unknown time frame, is likely the source. Both incidents are being investigated. Pursuant to Part H, Section 4c of the water license, a follow-up report will be issued after a closer investigation is completed. Reported by Sean Arruda, Environment Coordinator, 819-759-3555 ext. 4603996 sean.arruda@agnicoeagle.com				
L	REPORTED TO SPILL LINE BY Sean Arruda	POSITION Coordinator	EMPLOYER Agnico Eagle	LOCATION CALLING FROM Meliadine	TELEPHONE 819-759-3555
M	ANY ALTERNATE CONTACT Dan Gorton	POSITION Coordinator	EMPLOYER Agnico Eagle	ALTERNATE CONTACT LOCATION Meliadine	ALTERNATE TELEPHONE 819-759-3555
REPORT LINE USE ONLY					
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS	
LEAD AGENCY					
FIRST SUPPORT AGENCY					
SECOND SUPPORT AGENCY					
THIRD SUPPORT AGENCY					

Follow Up Report:

June 27, 2020, Jet-A / Waste Oil



The following information refers to a spill reported by Agnico Eagle Mines Ltd. June 27th 2020, and is being provided in accordance with:

- the Nunavut Water Board License 2BB-MEL1424 Water License, part H, item 4c
- the Government of Nunavut's, Environmental Protection Act subsection 5.1(a)

No official spill number was available on the ENR Spills online database at the time of submitting this report, although the spill was reported to the spill line.

Description of Incident:

On June 27, 2020 the Environment Department was notified of an early morning spill which occurred near the Exploration camp. While removing a pallet of fuel drums from a flatbed, the fork of a loader punctured a full drum of Jet-A fuel (205L), releasing it on the ground. This spill was contained quickly, but during the clean-up process, it was noticed that there was a sheen coming from a different location and migrating into the Jet-A spill. Upon further investigation, a drum with a pinhole leak, containing waste oil/diesel, was found to have been stored in a sea-can nearby. Over an unknown period of time the drum drained out (100L), and was likely covered by snow and ice over winter, becoming exposed and visible after the rainfall the previous night.

No water body was impacted by this spill. The closest water body (Meliadine Lake) is approximately 70 m away. The coordinates of the spill are 63° 1'41.33"N, 92°10'19.88"W (Figure 1).



Figure 1: Location of spill.

Spill Response & Cleanup:

The spill occurred after a night of significant rainfall. The Jet-A fuel settled into a large puddle on the road, and spill pads and absorbent booms were used to contain the area (Figure 2). A sump was dug out using a back hoe so that a vacuum truck could be used to pump out the contaminated water from the puddle. This water was transported to the Landfarm A oil-water separator for treatment.



Figure 2: Initial Jet A spill initial containment.

After the water was removed, the back hoe began clearing the contaminated gravel into piles, and a loader was used to transport all of this material to Landfarm A (Figure 3).



Figure 3: Contaminated gravel being removed from Jet A spill area.

The area affected by the contaminated sea can was also excavated, and the sea can was removed to access the material underneath. The damaged drum was pumped into a new drum, the entire sea can was emptied, and the contents were repacked properly in order to avoid future spills (Figure 4).



Figure 4: Condition of the seacan before, and after decontaminating and repacking the drums.

Corrective Measures

The sea can was emptied and the drums were inspected and repacked properly. Several cubic meters of contaminated gravel was removed from the surface of this pad. An investigation was completed with all departments involved and the Environment Department has provided them with a list of corrective and preventative measures. These include ensuring that personnel use a mandatory spotter when moving hazardous materials with forked equipment, completing a full inventory of the remaining sea cans in that area, repacking any improperly stored sea cans, and ensuring that hazardous waste containers are shipped south each year.



Sean Arruda | Environmental Coordinator

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FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

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A	REPORT DATE: MONTH – DAY – YEAR 09-08-2020		REPORT TIME 17:00		<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
	B	OCCURRENCE DATE: MONTH – DAY – YEAR 09-08-2020		OCCURRENCE TIME 15:00		
C		LAND USE PERMIT NUMBER (IF APPLICABLE) KVPL11D01			WATER LICENCE NUMBER (IF APPLICABLE) 2AM-MEL1631	
	D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Meliadine Gold Project			REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN	
E		LATITUDE DEGREES 63 MINUTES 1 SECONDS 36			LONGITUDE DEGREES 92 MINUTES 12 SECONDS 10	
	F	RESPONSIBLE PARTY OR VESSEL NAME Agnico Eagle Mines Ltd.		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Meliadine, Rankin Inlet, Nunavut, X0C 0G0		
G		ANY CONTRACTOR INVOLVED N/A		CONTRACTOR ADDRESS OR OFFICE LOCATION N/A		
	H	PRODUCT SPILLED Treated saline water		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 1 m3	U.N. NUMBER N/A	
I		SECOND PRODUCT SPILLED (IF APPLICABLE) N/A		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES N/A	U.N. NUMBER N/A	
	J	SPILL SOURCE Water transfer pipeline		SPILL CAUSE Equipment malfunction		AREA OF CONTAMINATION IN SQUARE METRES 20
K		FACTORS AFFECTING SPILL OR RECOVERY N/A		DESCRIBE ANY ASSISTANCE REQUIRED N/A		HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT N/A
	L	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS During a transfer of treated saline water from SP3 to the truck loading station, in preparation for discharge to sea, approximately 1 m3 of water was released from pipeline connections at the new filter system. The released water was collected in the CP5 containment pond and did not migrate off-site. The closest water body is approximately 925 meters. Pursuant to Part H, Section 8c of the water license, a follow-up report will be issued after a closer investigation is completed. Reported by Dan Gorton, Environment Coordinator, 819-759-3555 ext 4603996 meli.environment@agnicoeagle.com				
M		REPORTED TO SPILL LINE BY Dan Gorton	POSITION Coordinator	EMPLOYER AEM	LOCATION CALLING FROM Meliadine	TELEPHONE 819-759-3555
	N	ANY ALTERNATE CONTACT Matt Gillman	POSITION Coordinator	EMPLOYER AEM	ALTERNATE CONTACT Meliadine	ALTERNATE TELEPHONE 819-759-3555
REPORT LINE USE ONLY						
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130	
	LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS		
LEAD AGENCY						
FIRST SUPPORT AGENCY						
SECOND SUPPORT AGENCY						
THIRD SUPPORT AGENCY						

Follow Up Report: #20-310

August 9th 2020, 1 m³ Saline Water Spill



The following information refers to a spill reported by Agnico Eagle Mines Ltd. August 9th 2020, and is being provided in accordance with:

- the Nunavut Water Board License 2AM-MEL1631 Water License, part H, item 8c
- the Government of Nunavut's, Environmental Protection Act subsection 5.1(a)

Description of Incident:

On August 9th, at approximately 3:00 pm, an estimated 1 m³ of treated saline water was spilled as water was being conveyed via a waterline from Saline Pond 3 (SP3) to the truck loading station. An accidental release occurred from a recently commissioned waterline, resulting in water spilling to the ground and flowing towards Containment Pond 5 (CP5). No water migrated off-site. The closest water body is approximately 925 m away. The coordinates of the spill are 63° 1'36.00"N, 92°12'10.00"W (Figure 1).



Figure 1: Location of spill 1 m³ treated saline water spill in CP5 catchment, adjacent to loading station.

Spill Response & Cleanup:

No clean-up was required as the surface water flowed back into CP5, which is part of the sites' managed water system. The source of the treated saline water was SP3, which contains post-treatment water from the saline effluent treatment plant (SETP). Water quality from SP3 is monitored at licensed compliance monitoring location, Mel-26, prior to discharge to sea. A sample was collected from Mel-26 at the time of the spill and showed no results of concern.



Figure 2: Piping removed from SP3 to loading station.



Figure 3: Piping replaced from SP3 to loading station.

Corrective Measures





The Energy and Infrastructure (E&I) department replaced the piping August 10th and inspected the line before resuming operations. When the line was brought back into service, E&I personnel remained at the point of the spill to ensure that the replaced piping was operating correctly. No issues were observed.



Dan Gorton | Environmental Coordinator

dan.gorton@agnicoeagle.com | Direct 819.759.3555 x4603996 |

Agnico Eagle Mines Limited - Meliadine Mine, Suite 879 - Rankin Inlet, Nunavut, Canada X0C 0G0

agnicoeagle.com    

Sent from Meliadine



Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR 12-08-2020	REPORT TIME 17:30	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER _____
B	OCCURRENCE DATE: MONTH – DAY – YEAR 12-08-2020	OCCURRENCE TIME 07:00			
C	LAND USE PERMIT NUMBER (IF APPLICABLE) KVPL11D01	WATER LICENCE NUMBER (IF APPLICABLE) 2AM-MEL1631			
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Meliadine Gold Project		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES 63 MINUTES 1 SECONDS 18		LONGITUDE DEGREES 92 MINUTES 12 SECONDS 7		
F	RESPONSIBLE PARTY OR VESSEL NAME Agnico Eagle Mines Ltd.	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Meliadine, Rankin Inlet, Nunavut, X0C 0G0			
G	ANY CONTRACTOR INVOLVED Kivalliq Contractors Group	CONTRACTOR ADDRESS OR OFFICE LOCATION 32 Sivulliq Ave., PO Box 188, Rankin Inlet (NU) X0C 0G0			
H	PRODUCT SPILLED Diesel	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 300 L	U.N. NUMBER N/A		
	SECOND PRODUCT SPILLED (IF APPLICABLE) N/A	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES N/A	U.N. NUMBER N/A		
I	SPILL SOURCE Haul Truck	SPILL CAUSE Equipment Damage	AREA OF CONTAMINATION IN SQUARE METRES 50		
J	FACTORS AFFECTING SPILL OR RECOVERY N/A	DESCRIBE ANY ASSISTANCE REQUIRED N/A	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT N/A		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS During loading of a haul truck, a rock fell from an excavator bucket, puncturing the fuel tank of the haul truck. The contents of the fuel tank spilled to the ground in Tiriganiaq II open pit and did not migrate off-site. The closest water body is approximately 550 meters. Pursuant to Part H, Section 8c of the water license, a follow-up report will be issued after a closer investigation is completed. Reported by Dan Gorton, Environment Coordinator, 819-759-3555 ext 4603996 meli.environment@agnicoeagle.com				
L	REPORTED TO SPILL LINE BY Dan Gorton	POSITION Coordinator	EMPLOYER AEM	LOCATION CALLING FROM Meliadine	TELEPHONE 819-759-3555
M	ANY ALTERNATE CONTACT Terry Ternes	POSITION General Supervisor	EMPLOYER AEM	ALTERNATE CONTACT Meliadine LOCATION	ALTERNATE TELEPHONE 819-759-3555
REPORT LINE USE ONLY					
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS	
LEAD AGENCY					
FIRST SUPPORT AGENCY					
SECOND SUPPORT AGENCY					
THIRD SUPPORT AGENCY					

Follow Up Report: #20-286

August 12th 2020, 300 L Diesel Spill



The following information refers to a spill reported by Agnico Eagle Mines Ltd. August 12th, 2020, and is being provided in accordance with:

- the Nunavut Water Board License 2AM-MEL1631 Water License, part H, item 8c
- the Government of Nunavut's, Environmental Protection Act subsection 5.1(a)

Description of Incident:

On August 12th, 2020 the Environment Department was notified of a 300 L diesel spill which occurred at 7am in Tiriganiaq II open pit. While loading waste rock into a haul truck, a rock fell from the excavator bucket, puncturing the trucks' fuel tank. The contents of the fuel tank spilled to the pit floor and did not migrate off site.

No water body was impacted by this spill. The closest water body is approximately 550 m away. The coordinates of the spill are 63° 1'18.00"N, 92°12'7.00"W (Figure 1).



Figure 1: Location of 300 L diesel spill in Tiriganiaq II open pit.

Spill Response & Cleanup:

The previously blasted waste rock impacted by the spill was excavated and transported to the landfarm screening pad, beside Landfarm A. The material will remain in this location until hydrocarbons have volatilized, after which it will be transferred to WRSF 3.



Figure 2: Spill location following removal of hydrocarbon contaminated material.

Corrective Measures



The Environment Department completed an investigation with the Mine Department and concluded that human error and standard operating procedures were causation factors. The standard operating procedure was updated to ensure trucks are always loaded on the drivers' side, which is the opposite side to the fuel tank. Operators have been reminded to follow safe operating procedures and avoid overfilling trucks or attempting to load rocks unsuitable for the equipment.



Dan Gorton | Environmental Coordinator

dan.gorton@agnicoeagle.com | Direct 819.759.3555 x4603996 |

Agnico Eagle Mines Limited - Meliadine Mine, Suite 879 - Rankin Inlet, Nunavut, Canada X0C 0G0

agnicoeagle.com    

Sent from Meliadine



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NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR 08-18-2020		REPORT TIME 16:30		<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
	OCCURRENCE DATE: MONTH – DAY – YEAR Uncertain - see section K		OCCURRENCE TIME Uncertain - see K			
C	LAND USE PERMIT NUMBER (IF APPLICABLE) KVPL11D01			WATER LICENCE NUMBER (IF APPLICABLE) 2BB-MEL1424		
	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Meliadine Gold Project				REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN	
E	LATITUDE DEGREES 62 MINUTES 58 SECONDS 53			LONGITUDE DEGREES 92 MINUTES 01 SECONDS 41		
	RESPONSIBLE PARTY OR VESSEL NAME Agnico Eagle Mines Ltd.		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Meliadine, Rankin Inlet, Nunavut, X0C 0G0			
G	ANY CONTRACTOR INVOLVED Orbit Garant Drilling		CONTRACTOR ADDRESS OR OFFICE LOCATION 3200, boulevard Jean-Jacques Cossette, Val-d'Or, Qc, J9P 7G4			
	PRODUCT SPILLED Diesel		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES Uncertain		U.N. NUMBER 1202	
H	SECOND PRODUCT SPILLED (IF APPLICABLE) N/A		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES N/A		U.N. NUMBER N/A	
	SPILL SOURCE Fuel tank from Drilling Activities		SPILL CAUSE Human Error		AREA OF CONTAMINATION IN SQUARE METRES Unknown	
J	FACTORS AFFECTING SPILL OR RECOVERY Volume and date of spill uncertain		DESCRIBE ANY ASSISTANCE REQUIRED N/A		HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT N/A	
	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS On August 18th, Agnico Eagle Mines Limited was informed by Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) that a steel sled and fuel tank had been observed in Meliadine Lake at approximately N62 58 53.0 W092 01 41.2 , between the main camp and the drilling area, at approximately 60 meters from the shore. An investigation was immediately launched and it appears the fuel tank might have inadvertently been left behind by one of our drilling contractor following a 2019 drilling campaign. At this time, Agnico Eagle Mines Limited would like to clarify that no spill has yet been confirmed and this report is being submitted as due diligence. We are currently verifying if there are any evidence of a spill. Helicopter survey, shore surveys and water sampling are currently being conducted. Regulators will be updated as soon as additional information becomes available.					
L	REPORTED TO SPILL LINE BY David Frenette	POSITION Env. Coord	EMPLOYER Agnico Eagle Mines	LOCATION CALLING FROM Val-d'Or	TELEPHONE 8198745980	
	ANY ALTERNATE CONTACT Jean Claude Blais	POSITION Geology Superintend	EMPLOYER Agnico Eagle Mines	ALTERNATE CONTACT Meliadine	ALTERNATE TELEPHONE 8197595555	
REPORT LINE USE ONLY						
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130	
	LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS		
LEAD AGENCY						
FIRST SUPPORT AGENCY						
SECOND SUPPORT AGENCY						
THIRD SUPPORT AGENCY						



AGNICO EAGLE

Meliadine Exploration Project

Fuel Tank in Meliadine Lake, Closing Report

September 17th, 2020

Prepared by:

**Agnico Eagle Mines Limited,
Exploration Division**

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INTRODUCTION

On August 18th, Agnico Eagle Mines Limited (Agnico Eagle) was informed by Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC), Water Resources Officer, that a steel sled and fuel tank had been observed in Meliadine Lake (see Figure 1) at coordinates N62 58' 53.0" W092 01' 41.2" at approximately 8.9 km southeast of the Meliadine exploration camp (see Figure 2).

The initial assessment conducted by Agnico Eagle showed that it was located in a bay of Meliadine Lake, between the main camp and the Discovery Gold Deposit. The tank was a certified 4,640-litre double-walled fuel tank mounted on a steel sled used during winter drilling activities. It was inadvertently left behind on the ice surface by one of our drilling contractors after a 2019 winter drilling campaign and partly sank in the lake after freshet in 2019.

The tank was seen resting on its side, in shallow water. Given the fairly shallow water depth at this location, the fuel tank was partially submerged in the lake. The information received from our drilling contractor seems to suggest that this fuel tank was essentially empty after the drilling program when left at this location.

A declaration for a potential reportable event was submitted the same day (on August 18th 2020) to the Spill Report Line, to the Nunavut Water Board and to inspectors from Kivalliq Inuit Association, Crown-Indigenous Relations and Northern Affairs Canada and Environment Canada.



Figure 1. Fuel tank in the lake, August 19th, 2020

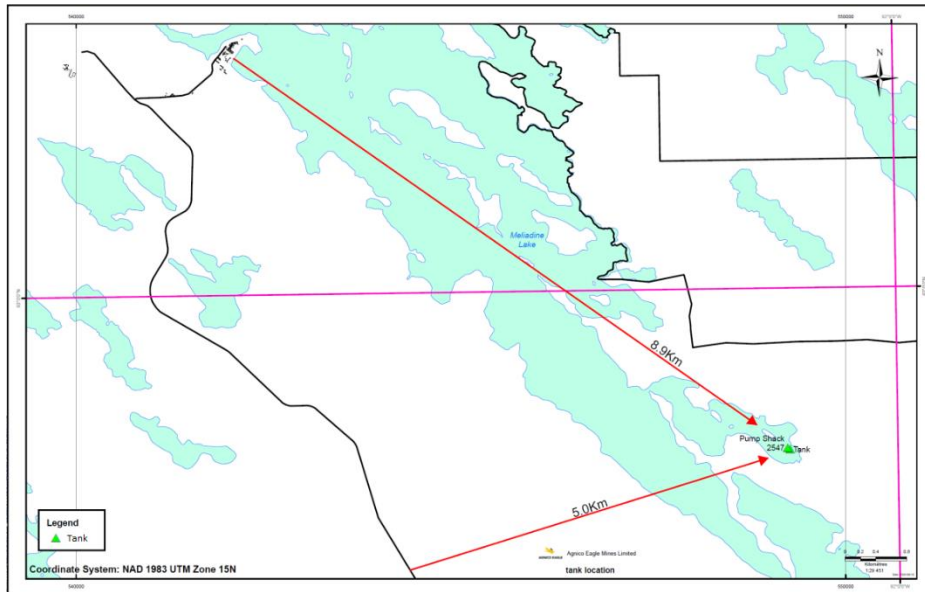


Figure 2. Location of the fuel tank

IMMEDIATE ACTIONS TAKEN

An investigation was immediately launched in conjunction with the elaboration of an action and mitigation plan to ensure the lake was monitored and protected in the vicinity of the fuel tank.

Initial information available provided by our drilling contractor was that the fuel tank was inadvertently left behind, on the lake by one of our drilling contractors after a 2019 drilling campaign and that it was essentially empty after the drilling program when left at this location.

August 19th

A visit of the area was conducted on August 19th by the Nunavut Environmental and the Geology departments. A marine containment barrier and absorbent booms (see Figure 3) were installed around the tank as a preventative measure, even if no visual evidence of a fuel (diesel) spill was seen on the water surface or on the shoreline. Several walks along the shore were conducted to verify if there were any evidence of a spill or contamination, none was observed.

Also, all the previously available water samples in the area including the fresh water supply samples at the mine were reviewed by our Environmental department and no indication of a fuel contamination was detected upon lab analysis.



Figure 3. Fuel tank inside containment barrier and absorbent booms

August 20th

A formal investigation was initiated by Agnico Eagle on August 20th to better understand the sequence of events. Available information was collected and reviewed. A team of divers arrived on site and started to plan the first dive to assess the condition of the tank.

A fly-over by helicopter and another walk along the shoreline were conducted by Agnico Eagle and no evidence of contamination was again observed.

Scenarios/options to remove the fuel tank from the lake were developed and analysed by a team involving Agnico Eagle and the drilling contractor owning the tank. It was decided to elaborate the plan slowly to ensure to develop a robust and safe action plan that would result in a safe removal of the tank.

August 21st

Divers proceeded to their first dive on August 21st and assessed the tank and surrounding ground condition. Two of the three caps normally installed at the top of the fuel tank were missing. Using a camera, the divers were able to show that the tank did not present any evidence of containing fuel and was partially filled with water. The overall condition of the fuel tank was fine, and the bottom of the lake did not show anything problematic that could prevent its extraction up to the shore. The tank was lying on its side and needed to be pivoted to bring it back to its normal position (skids at the bottom).

Based on the information obtained by the drilling contractor, Orbit Garant Drilling (OGD), the fuel tank was essentially empty when it was left on the ice surface after the 2019 winter drilling program. The drilling contractor informed Agnico Eagle that it was never realized that one of their fuel tanks was missing. This event was an unintentional event that could be linked to some gap in communication during a crew change.

Another walk along the shoreline was conducted by Agnico Eagle and again, no evidence of contamination was observed.

August 22nd

On August 22nd, the divers replaced the two missing caps on the fuel tank. New aluminium caps were used and the threads were sealed with Teflon. They also installed buoys above the bigger boulders between the tank and the shore to create a preferred pathway for the extraction operation in order to avoid them during the winching operation.

Cables were attached at specific points on the tank and on the sled to have some pulling options during the upcoming operation. Divers confirmed that the overall condition of the fuel tank had not changed (in fine condition), that the bottom of the lake didn't show anything problematic that could prevent its extraction (mostly sand and some boulders). The tank lying on its side needed to be pivoted first to bring it to its normal position (skids at the bottom). Equipment was transported by helicopter in preparation for the extraction of the fuel tank.

August 23rd

The divers proceeded with a third dive on August 23rd to reassess the tank and surrounding ground conditions. Absorbent booms around the tank were re-anchored to form a shape that would allow the pivoting operation, the sleigh's upright position and all other manipulations required.

Divers confirmed that the overall condition of the fuel tank and surrounding area had not changed.

In preparation for the operation, a 4,500-liter water container was heliported and filled with water on the shore to be used as an anchor during the pivoting operation (see Figure 5). Straps were attached to the container and a chain block was installed. The cable was attached from the container to the side of the submerged tank and a slight tension was applied. Divers observed that only by this slight tension the tank was starting to rise. The skid that would act as a pivot point seemed to be anchored securely enough to the ground so that any other means to avoid its sliding during the lifting operation would be unnecessary.

Environmental and pulling equipment was transported by helicopter in preparation for the extraction of the fuel tank.

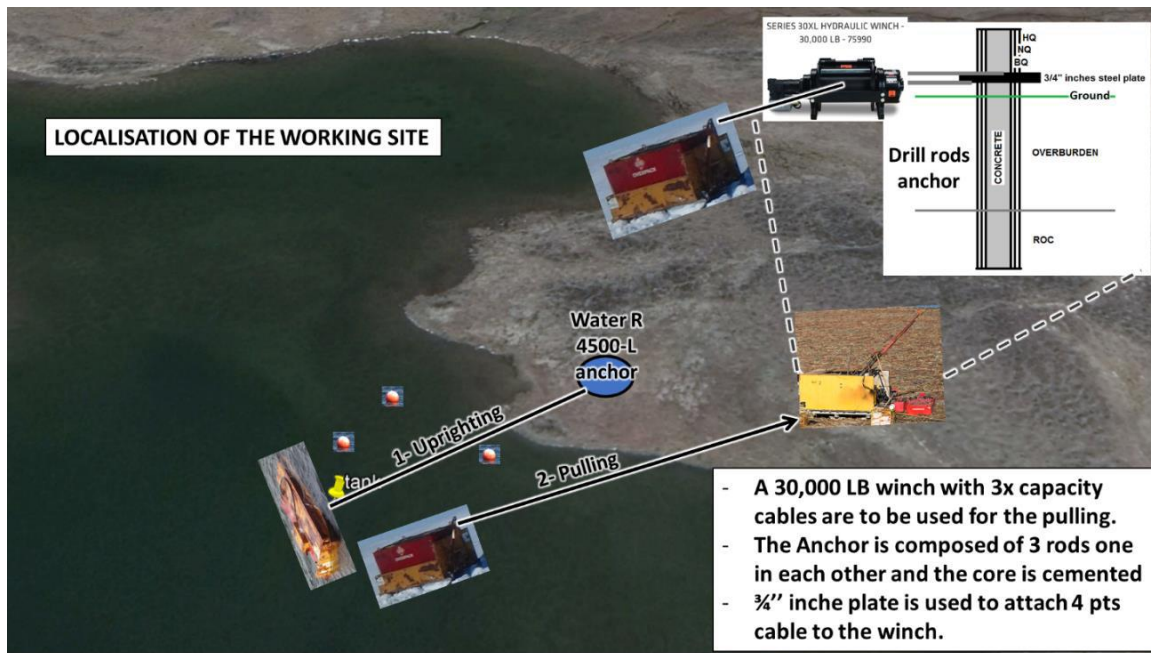


Figure 4. Plan view of the planned operation

August 24th

Experienced workers arrived at the Meliadine site on August 24th and a detailed Job Hazard Assessment was conducted by Jérôme Lavoie – AEM, Christian Rousseau – OGD, Tommy Thelland – OGD, Morgan Hjorth – AEM, Sara Savoie – AEM, Taylor McComber – DIVEX.

Methodology of the pulling operation was reviewed in preparation of the action plan application (Appendix B) to ensure the action plan was robust and safe and will result in a safe removal of the tank.

The remaining equipment needed for the operation was transported by helicopter in preparation for the extraction of the fuel tank

August 25th

A task review and a risk assessment were completed again along with the remaining preparation work.

The 4 phases of the Action Plan (plan in Appendix B) were conducted on August 25th between 11AM CT and 6PM CT and resulted in a successful and safe tank extraction and according to plan. The tank was laid on the shore after being fully emptied and installed on two wood beams placed on a tarp on a flat surface. All the drums with the contaminated water pumped from the tank were transported to

the Meliadine mine site to be stored until transported to a treatment facility (see Figures 6 to 9)

The tarp was flipped over the tank and secured with ropes to fully wrap it.

A bulldozer will bring back the tank to the camp next winter to minimize damage to the tundra.



Figure 5. Diver preparation



Figure 6. Fuel tank being extracted from the lake



Figure 7. Fuel tank is on land and secured



Figure 8. Fuel tank general location with drums ready to be transported

WATER SAMPLING

A review of the Meliadine Mine water samples was conducted by the Meliadine Environmental department. The conclusion of this review including data from 2018 to 2020 showed no evidence of contamination due to hydrocarbons.

During the extraction activities conducted to transport the fuel tank to the shore, three water sampling campaigns were conducted. A first sampling campaign was conducted on August 18th when the tank was located. This first campaign was used to define the conditions prior to the extraction operation. The second sampling campaign was conducted on August 25th immediately after the extraction operation. The third sampling campaign was conducted on August 29th a few days after the extraction as a precautionary measure in case the second campaign would have revealed signs of contamination.

The first sampling campaign included 34 samples, the second campaign included 35 samples (a sample in the tank added) and the third campaign included 39 samples as field duplicate and blanks samples were added to ensure a quality control.

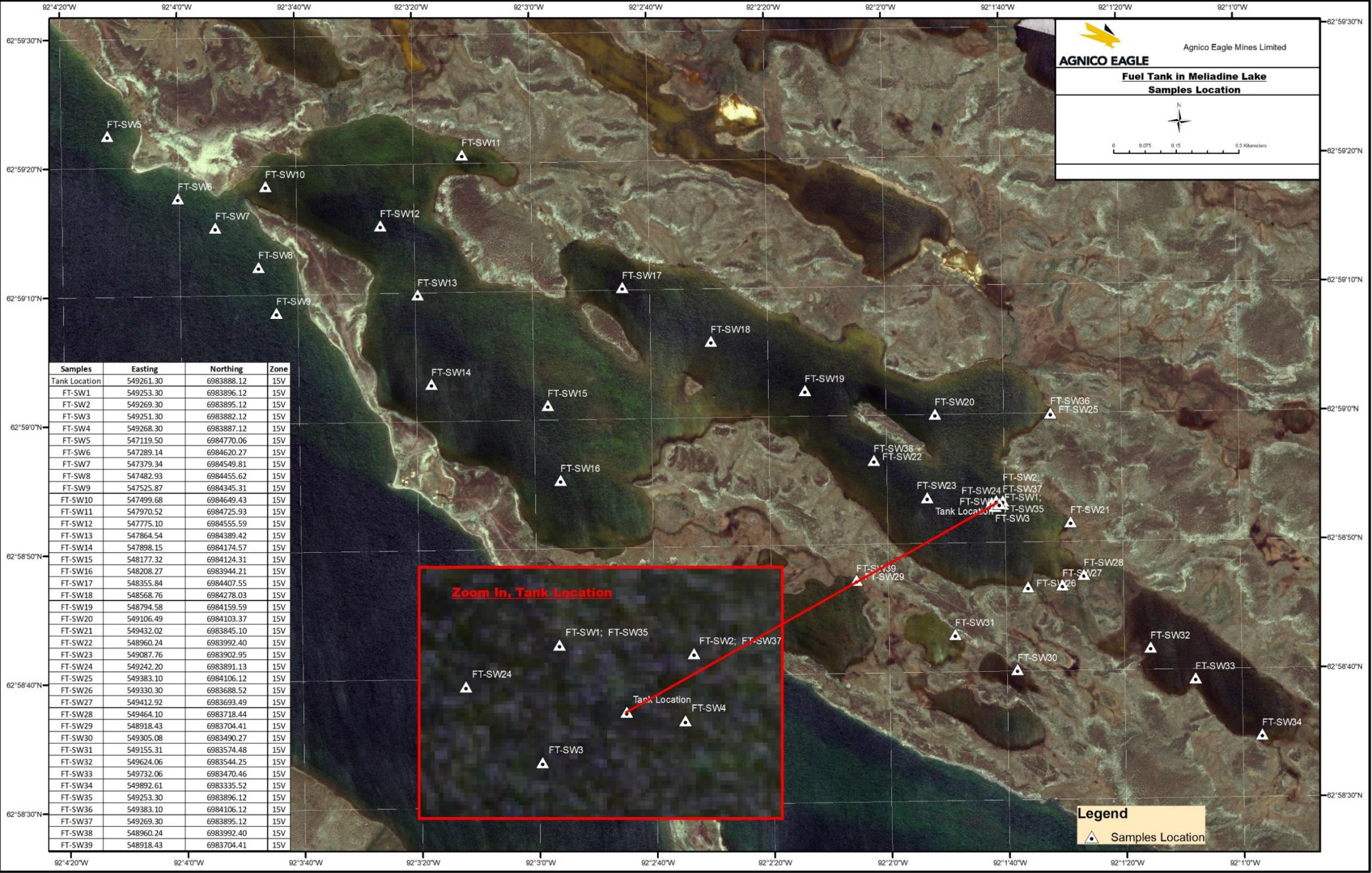


Figure 9, Water Sampling Locations

SAMPLE RESULTS ANALYSIS

The results obtained during these 3 sampling campaigns were reviewed and analyzed by Golder (their report is included in Attachment 1). Following the review of the samples results and the information provided by Golder, it does not appear that the activities associated with the tank recovery caused a significant impact to the surface water quality in the Meliadine Lake prior to, the same day and after the tank recovery.

Golder also recommended that based on the results of their review and the information provided by Agnico Eagle indicating that only a small volume of fuel could have been released by the tank, no further environmental monitoring (water, sediments or soils) is recommended.

CONCLUSION, LESSONS LEARNED AND CORRECTIVE MEASURES

Following the investigation, the actions conducted to extract the fuel tank from the lake, the inspection of the lake and the shore by helicopter, by boat and on foot and the sampling results analyzed by Golder, it is concluded that the fuel tank, left behind on the lake by one of our drilling contractors after a 2019 drilling campaign, was essentially empty after the drilling program and that there was not a significant volume of fuel that could have spilled during the period the tank was present in the lake. The investigation showed areas where the process could be optimized and to avoid any similar event in the future, members of both Agnico Eagle Mines Ltd. and OGD teams proposed a series of improvement measures:

- 1- Clarify the post-inspection procedure using a form including a clear procedure on picture taking after all material and equipment has been cleared off an exploration site. Winter trail pickets will not be removed until the final inspection is 100% completed.
- 2- Implement a simple and clear numerical system to identify the mobile fuel tanks on every exploration sites. Numbers will follow in sequence and will be clearly indicated on flags installed on the tanks. Work cards will include this numerical system for the drill and the pump station. At the end of the drilling season a verification will be made that all tanks are accounted for.
- 3- Implement a system to document which tank has been filled by Energy & Infrastructure (Agnico Eagle) and when. This information combined with corrective measure #2 will allow a better tracking of the quantity of fuel remaining in each tank and their location on the field.
- 4- A board will be installed at the supervisor's office with magnetic numbers to track the fuel tanks assigned to each drill sites and pump stations.
- 5- Communicate these new procedures to the drillers and the supervisors in charge of each department involved and ensure that they understand their

importance. Listen to suggestions that can improve these procedures. Meet with stakeholders for final approval.

- 6- Make sure that for all water sampling campaigns, duplicate and blanks are taken to ensure that a quality control is available.

These measures will be implemented at the other Agnico Eagle Exploration projects.

Agnico Eagle is confident that the implementation of the above mitigation measures has improved the robustness of our process and will effectively prevent any future event.

A handwritten signature in black ink, appearing to read 'Denis Vaillancourt', written over a horizontal line.

Denis Vaillancourt

Exploration Manager, Canada

CC: Michel Julien, Martin Plante, David Frenette

APPENDIX A; INITIAL COMMUNICATION FROM CIRNAC

From: Shouldice, Atuat (AADNC/AANDC) <atuat.shouldice@canada.ca>
Sent: Tuesday, August 18, 2020 9:35 AM
To: Dan Gorton <dan.gorton@agnicoeagle.com>; Sean Arruda <sean.arruda@agnicoeagle.com>; Meliadine Environment Supervisors <meli.environment.supervisors@agnicoeagle.com>; Meliadine Environment <meli.environment@agnicoeagle.com>
Cc: Pasalic, Omer (AADNC/AANDC) <omer.pasalic@canada.ca>; Justin Hack <justin.hack@canada.ca>; Christine Wilson <Christine.Wilson3@canada.ca>; Jeff Tulugak <jtulugak@kivalliqinuit.ca>
Subject: [EXTERNAL] Drill fuel tank sled in Lake

CAUTION: EXTERNAL

Good Morning

Yesterday on our way back from Chesterfield we came across a steal sled and fuel tank from your exploration program in a lake, please contact me as soon as possible so we can discuss how this will be addressed.

Here are the coordinates N62 58' 53.0" W092 01' 41.2" and attached is a picture. The site is between main camp and the drilling area.

Atuat Shouldice

Water Resource Officer

Kivalliq Region, Field Operations Unit

Crown-Indigenous Relations and Northern Affairs Canada

Atuat.Shouldice@Canada.ca / Tel: (867) 645-2840 / Mobile: (867) 645-7389



Crown-Indigenous Relations
and Northern Affairs Canada

Relations Couronne-Autochtones
et Affaires du Nord Canada

***** We have moved into our new office, but do not have phone services yet*****

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APPENDIX B; ACTION PLAN

Action Plan in 4 Phases

PHASE 1 – UPRIGHTING OF THE TANK WITH THE DIVERS

The first phase was to tilt and bring back the fuel tank to its normal position, which was placed upward on its skids.

Floating matting and booms have been repositioned to make sure they contain and collect any potential contamination and do not hinder the work.

Preparation

- Installed barricades & signs in a 100m radius to limit access of possible observers around the site to prevent any incidents.
- Sling with the helicopter on the shore an empty 4,500-liter water reservoir to store fresh water during drilling activities to act as counterweight when filled with water for the tilting operation. This reservoir was considered clean and has been emptied when the tilting operation is completed.
- Attached a cable for the chain block to the upper part of the sleigh and bring the cable to the shore. This cable was used to tilt the fuel tank.
- Anchored the booms and the mats with cables so they remained away from the fuel tank during the tilting operation.

Operation

- Attached the cable to the chain block on the water reservoir on shore.
- Anchored 2-3 metal pins in front of the skid to help stabilize the pivot point during the pull.
- Attached balloons to the fuel tank bottom hook and inflated them to increase buoyancy (filled with air from the diver's reservoirs). A second layer of balloons can be added to help lifting the fuel reservoir a little more. With the balloons, the tank lifted +-30cm.
- Nobody in 100m radius except the operator.
- Tightened the cable with the chain block, pulling until the top of the tank was moved forwardly. Loosen the cable then.
- Disinflated and removed the balloons.
- Attached all the cables that could have been needed for the pulling operation.

PHASE 2 – PULLING THE TANK TO THE SHORE

During this operation, the only people allowed within the 100m radius were the two operators. Balloons, cables and hydraulic hitch were used to help if a boulder is blocking the path of the sleigh. If so, the tension on the cable would be decreased if any task is needed besides the pulling.

Preparation

- The best path to be used to pull the tank has been determined by the divers and is indicated by the buoys.
- A series of picket were implanted for the location of the drill.
- Buoys were indicating the location of boulders and the pathway to follow. Divers confirmed that the bottom of the lake for the proposed pathway is a sand and gravel with some small boulders.
- A small drill rig with its supporting equipment was moved by helicopter on the shoreline. This drill rig was used to drill a HQ hole to serve as an anchoring system for the winch used to pull the fuel tank. The hole was drilled at a dip of 45 degrees toward the lake. The hole was drilled at least 1.5 m into bedrock. To increase the stiffness of the anchor system, a NQ core barrel and a BQ will be inserted in the HQ rods. The couplings of the rods included in the anchoring system will be disaligned to optimize its strength. The anchoring system corresponded to 3 layers of steel rods and provided a very stiff anchoring system.
- A ramp made of steel rods was used to allow the sleigh to reach the tundra.

Operation

The operators were senior superintendents of the drilling contractor in Nunavut. The divers are the persons that were attaching the cables.

- The right cable was used to rotate the sleigh, so its front points were properly aligned.
- The cable attached to the tong was pulled and the sleigh moved toward the winch attached to the anchoring system.
- The tension was monitored. The pulling continued until the tank was at the shore or the tension seems a little high. As soon as the top of the tank was sufficiently out of water (minimum 0.5 m), the pumping operation to transfer the fuel tank to drums on the shore began (using the boat).
- Pumping operation aimed at emptying the full content of the fuel tank. The collected drums were airlifted to camp before being sent to the south.
- When the emptying of the fuel tank was completed, the final pulling operation of the empty fuel tank began.

PHASE 3 – PUMPING THE TANK

A boat can be used if the tank is not directly accessible by the shore to install the pump.

The drums were flown back to the camp to be stored in a seacan.

Preparation

- Installed containment berm and spill kit beside the drill site, 25 empty 205 liters drums were transported nearby. Ensured the length of hose was sufficient and its integrity was adequate.

Operation

- Looked inside the tank if we could see fuel floating on the water.
- Installed the pump on the tank. One person at the tank with the pump, one at the drums with constant communication (visual, radio).
- Started the pumping. Water samples were taken from the last filled drum.
- When at least 4 drums were filled and capped, rolled them in a net to be picked up by the helicopter. Two persons were available at the drop zone to receive the net, empty it and roll the drums on a pallet. Straps were installed to secure the load.
- Continued the pumping until the pump was breathing air then stopped.
- Packed everything up.
- Get to the final phase of the pulling.

PHASE 4 – PACKING THE TANK FOR THE WINTER

Preparation

- Installed containment berm on the ground on the tundra in front of the drill where the tank was stored.
- Installed a ramp to climb the sleigh on the tundra and into the berm.
- Put some pallets inside the berm so the sleigh did get stuck to the berm during the winter.

Operation

- The cable attached to the tong was pulled and the sleigh was moved forward towards the drill.
- The tension was monitored. As soon as the tank sleigh was inside the berm, all cables were detached.
- Packed everything up. Moved the drill back to its original setup.
- Covered the tank with a tarp for the winter.
- Documented the operation with pictures.
- When the pulling operation was completed, proceed to another round of water sampling similar to the one done earlier and starting from the fuel tank location and move downstream.
- Pickup all booms and mattings.
- Leave only one buoy for the original location of the fuel tank.
- Conclude the investigation report.



Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR 08-24-2020	REPORT TIME 12:45	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER _____
B	OCCURRENCE DATE: MONTH – DAY – YEAR 08-23-2020	OCCURRENCE TIME 14:00			
C	LAND USE PERMIT NUMBER (IF APPLICABLE) KVPL11D01	WATER LICENCE NUMBER (IF APPLICABLE) 2AM-MEL1631			
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Meliadine Gold Project		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES 63 MINUTES 2 SECONDS 13		LONGITUDE DEGREES 92 MINUTES 13 SECONDS 33		
F	RESPONSIBLE PARTY OR VESSEL NAME Agnico Eagle Mines Ltd.	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Meliadine, Rankin Inlet, Nunavut, X0C 0G0			
G	ANY CONTRACTOR INVOLVED None	CONTRACTOR ADDRESS OR OFFICE LOCATION NA			
H	PRODUCT SPILLED Slurry	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 15 m3	U.N. NUMBER N/A		
	SECOND PRODUCT SPILLED (IF APPLICABLE) N/A	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES N/A	U.N. NUMBER N/A		
I	SPILL SOURCE Process Plant Trash Screen#2	SPILL CAUSE Equipment Failure	AREA OF CONTAMINATION IN SQUARE METRES 100 m2		
J	FACTORS AFFECTING SPILL OR RECOVERY None	DESCRIBE ANY ASSISTANCE REQUIRED None	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT None		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS On August 23 2020, an equipment failure on the Process Plant Trash Screen #2 and HMI interface occurred which led to approximately 15 m3 of slurry flowing outside the building onto the industrial pad. The mill was stopped to correct the issue and the spill was cleaned up. The spilled material will be reprocessed through the mill. No bodies of water were impacted by this spill, the closest body of water, lake G2, is approximately 600 m away. Pursuant to Part H, Section 8c of the Water Licence, a follow-up report will be issues after a closer investigation is completed. Reported by Sara Savoie, Compliance Counselor 819-759-3555 ext. 4603996 sara.savoie@agnicoeagle.com				
L	REPORTED TO SPILL LINE BY Sara Savoie	POSITION ComplianceCounselor	EMPLOYER AEM	LOCATION CALLING FROM Meliadine	TELEPHONE 8197593555
M	ANY ALTERNATE CONTACT Matt Gillman	POSITION HydrologyCoordinator	EMPLOYER AEM	ALTERNATE CONTACT Meliadine	ALTERNATE TELEPHONE 8197593555
REPORT LINE USE ONLY					
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS	
LEAD AGENCY					
FIRST SUPPORT AGENCY					
SECOND SUPPORT AGENCY					
THIRD SUPPORT AGENCY					

Follow Up Report: #20-292

August 23rd, 2020 – 15 m³ Slurry Spill



The following information refers to a spill reported by Agnico Eagle Mines Ltd. August 23rd 2020, and is being provided in accordance with:

- the Nunavut Water Board License 2AM-MEL1631 Water License, part H, item 8c
- the Government of Nunavut's, Environmental Protection Act subsection 5.1(a)

Description of Incident:

On August 23rd 2020, at 2:00pm an equipment failure on the Process Plant Trash Screen #2 and Human Machine Interface (HMI) occurred which led to approximately 15 m³ of slurry flowing outside the building onto the industrial pad. No bodies of water were impacted by this spill, the closest body of water, lake G2, is approximately 600 m away. The coordinates of the spill were 63° 2'11.02"N, 92°13'29.92"W (Figure 1).



Figure 1: Location of slurry spill at the process plant, and proximity to water bodies.

Spill Response & Cleanup

The process was stopped to correct the issue and the spill was cleaned up (Figure 2). The spilled material was collected and added to the ore feed for immediate reprocessing (Figure 3).



Figure 2: Spilled slurry outside of process plant door, during clean-up.



Figure 3: Spilled slurry added to existing ore feed pile for immediate reprocessing.

Cause of Incident and Corrective Measures

The spill occurred when a piece of steel passed the trash screen and entered the cyclone system, creating a blockage. The HMI alert did not allow enough time for the operator to shut down the process before the overflow occurred. Most of the spill was contained within the building, however approximately 15 m³ of slurry migrated out the door onto the industrial pad. Following the investigation into the cause it was determined the piece of steel had been in the ore as it entered the process. To prevent reoccurrence, a large magnet is being installed to remove such objects.



Dan Gorton | Environmental Coordinator

dan.gorton@agnicoeagle.com | Direct 819.759.3555 x4603996 |

Agnico Eagle Mines Limited - Meliadine Mine, Suite 879 - Rankin Inlet, Nunavut, Canada X0C 0G0

agnicoeagle.com





Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR 08-31-2020	REPORT TIME 5:45 pm	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER _____
B	OCCURRENCE DATE: MONTH – DAY – YEAR 08-23-2020	OCCURRENCE TIME Unknown			
C	LAND USE PERMIT NUMBER (IF APPLICABLE) KVPL11D01	WATER LICENCE NUMBER (IF APPLICABLE) 2AM-MEL1631			
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Meliadine Gold Project		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES 62 MINUTES 48 SECONDS 1		LONGITUDE DEGREES 92 MINUTES 5 SECONDS 57		
F	RESPONSIBLE PARTY OR VESSEL NAME Agnico Eagle Mines Ltd.	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Meliadine, Rankin Inlet, Nunavut, X0C 0G0			
G	ANY CONTRACTOR INVOLVED None	CONTRACTOR ADDRESS OR OFFICE LOCATION N/A			
H	PRODUCT SPILLED Treated Saline Water	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 11,005 m3 approximately	U.N. NUMBER N/A		
	SECOND PRODUCT SPILLED (IF APPLICABLE) N/A	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES N/A	U.N. NUMBER N/A		
I	SPILL SOURCE MEL-26 Final Discharge Point	SPILL CAUSE TSS Exceedance	AREA OF CONTAMINATION IN SQUARE METRES Unknown		
J	FACTORS AFFECTING SPILL OR RECOVERY Organic TSS	DESCRIBE ANY ASSISTANCE REQUIRED None	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT None		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS During discharge to sea, regulatory samples were collected at compliance point MEL-26 on August 23, 2020. Partial results from the sample were received on August 31, 2020, indicating TSS levels of 46 mg/L and volatile TSS levels of 35 mg/L. As due diligence, Agnico Eagle Mines Ltd. has stopped discharge on August 31, 2020 until the cause of this exceedance is identified and appropriate corrective measures are implemented. A follow-up report will be issued after a closer investigation is completed. Reported by Sean Arruda, Environment Coordinator 819-759-3555 ext. 4603996 sean.arruda@agnicoeagle.com.				
L	REPORTED TO SPILL LINE BY Sean Arruda	POSITION EnvCoordinator	EMPLOYER AEM	LOCATION CALLING FROM Meliadine	TELEPHONE 8197593555
M	ANY ALTERNATE CONTACT Terry Ternes	POSITION Env GeneralSuperviso	EMPLOYER AEM	ALTERNATE CONTACT Meliadine LOCATION	ALTERNATE TELEPHONE 8197593555
REPORT LINE USE ONLY					
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS	
LEAD AGENCY					
FIRST SUPPORT AGENCY					
SECOND SUPPORT AGENCY					
THIRD SUPPORT AGENCY					

September 30th, 2020

**Re.: Agnico Eagle - Meliadine Project – TSS exceedance to Marine Environment
Final Report**

This letter provides the final report for the TSS exceedance reported on August 31st, 2020. Specifically, this letter includes:

- a summary of the background information on the event,
- water quality test results,
- results of the investigation of the event and additional actions taken,
- discussion of possible mechanisms leading to the event, and the proposed path forward.

Background

Agnico Eagle Mines Limited – Meliadine Division informed you via email on August 31, 2020, that the level of Total Suspended Solids (TSS) from the Saline discharge in Melvin Bay exceeded the limits, set out in MDMER Schedule 4, of 30 mg/L, for the maximum authorized concentration in a grab sample.

As well, the monthly mean of 15 mg/L for suspended solids was exceeded for the period of August 2020.

All other parameters were in compliance with MDMER authorized discharge criteria and the toxicity test results show the water discharged to be safe to aquatic life.

This event report was submitted in compliance with the requirements of Part H, Item 8b of Water License 2AM-MEL1631 (Water License), subsection 12(3) of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (Canada), paragraph 5.1(a) of the *Environmental Protection Act* (Nunavut), subsection 38(5) of the *Fisheries Act* (Canada) and paragraph 24(1)(a) of the *Metal and Diamond Mining Effluent Regulations* (MDMER) made under the *Fisheries Act* (Canada) and reported as required by Meliadine Crown Surface land lease 55K/16-42-2 authorization covenant 42”.

The effluent was sampled on August 23, 2020. Upon reception of sampling results from our external Laboratory of this sample on August 31, it was observed that total suspended solid (TSS) of 46 mg/L exceeded the regulatory limit of 30 mg/L maximum authorized concentration in a grab sample.

Following the reception of the results, the discharge was stopped immediately on August 31.

The initial, very conservative, estimate provided of the quantity of water released between August 16 and August 31 was 11 000 m³. Upon reception of fully compliant subsequent sampling results from August 28, the overall maximum volume that could have been released was determined to be 8,069 m³ discharged into Melvin Bay from sampling dates of August 16 to 28. This is obviously an upper bound for the possible volume of released effluent that could have exceeded the maximum TSS authorized concentration in a grab sample. As mentioned above, all other parameters were below permissible limits and the acute toxicity passed showing no effect.

The investigation showed that the exceedance of TSS is primarily the result of algae developing in the pond used to hold treated water before it is being trucked to Itivia to be discharged in Melvin Bay. In addition, it appears that an intermittent filter failure from the saline pond may have further amplified the exceedance of TSS. Therefore, the quantity of water with a TSS level exceeding our water license is expected to be lower than maximum 8,069 m³.

Toxicity and water quality results

Toxicity tests

Samples were taken for analysis on August 23 and 31 from the discharged water source. The toxicity test results show the effluent to be safe to aquatic life and compliant to regulations. Results can be found in appendix A.

Water quality sampling

Samples are taken regularly to ensure compliance for MDMER related parameters. Results can be found in appendix A.

Table 1: MDMER related water quality results:

Sample Date			10 Aug. 2020	16 Aug. 2020	23 Aug. 2020	28 Aug 2020	29 Aug 2020	30 Aug 2020	31 Aug 2020
Result Received			Aug 17	Aug 21	Aug 31	Sept 3	Sept 3	Sept 3	Sept 4
Location			MEL-26 Discharge in Melvin Bay						
Parameter	Unit	MDMER Limits							
Total suspended solids	mg/L	30	25	18	46	6	7	7	7
Volatile suspended solids	mg/L		15	11	34	5	5	4	6

Sampling and subsequent sample shipment were executed according to site Standard Operating Procedures and samples were sent on the same day via charter and transported directly to an accredited and certified laboratory (BV Lab) in Ottawa.

The timeline between sampling and reception is considered normal for these samples. Multiple factors can affect the turn around time for TSS results including: the shipping of our samples to Val-d'Or via our charter, the shipping from our warehouse in Val-d'Or to the accredited lab, the workload at the lab, etc.

Regular water samples were also collected in the receiving environment during this period and the analysis from these samples showed no exceedances of the MDMER water quality criteria.

The calculated average considering the discharge for the month of August was tabulated at 16,6 mg/L. Exceeding the allowed MDMER monthly average limit of 15 mg/L.

Additional investigations, analysis and mitigation measures

Further investigations and analysis were completed, as well as an action plan was developed, to understand the cause of the exceedance on August 23, 2020. Increased sampling was completed at multiple process stages to fully understand the source of increase.

Following the campaign conducted, results show that the high TSS level in the water was likely due to the presence of algae. Confirmatory biological sampling was also completed to further identify the associated species. The sampling was completed and shipped to a lab that will be able to identify saline water species. Because of this specificity, the turnover on getting results, including shipping on the west coast, are expected to take up to 4 weeks. The analyses were started last week and are ongoing.

As indicated in Table 1, the majority of the sediment in the samples taken from August 10 to 31 consisted of Volatile Suspended Solids (VSS). VSS tests by definition "is a water quality measure obtained from the loss of ignition of the mass of measured total suspended solids. The ignition generally takes place in an oven at a temperature of 550 C to 600 C. It represents the amount of volatile matter present in the solid fraction of the measured solution". VSS represents the volatile fraction of TSS which can be composed of organics, such as algae, and other fractions which are ignitable at the test temperature. If the VSS is removed from the TSS then the Suspended Solids on August 31 could be calculated to be at 12 mg/L.

In addition, it appears that an intermittent filter failure from the discharge of the saline pond may have further amplified the exceedance of TSS.

Mitigation measures have been implemented since.

- The pond was fully emptied, rinsed and cleaned by September 8.
- Our water discharge process was audited externally and validated treatment efficiencies.
- The sampling frequency was increased with daily samples taken in multiple locations of the process since August 31 to monitor more closely the compliance of the water and identify interference sources.
- Those daily samples are analyzed on site to avoid delays in sampling results and are in addition to the external weekly analysis done by an external accredited laboratory. Thus, allowing quicker responses in sediments concerns.
- Pressure monitoring of the filters have been installed enabling us to detect any anomaly that could arise in a timely manner.
- Filters types and pore sizes were assessed for efficiencies and ensuring higher frequency changes.

Path Forward

The action plan will remain active until the discharge is stopped for the winter time.

Agnico is confident that the overall steps undertaken in understanding and correcting the overall algae and filter situation that led to the observed exceedance are effective and have improved the stability and reliability of the system.

Considering the above, the discharge to the sea at Melvin Bay, restarted on September 16, 2020.

In addition, the following environmental monitoring will be conducted:

- Increased internal and external sampling to determine water quality during active discharge, also ensuring that external samples are treated with high priority once received; and.
- A receiving environment monitoring program was carried out in Melvin Bay on September 17 and 18, results can be provided upon reception.

Conclusion

Agnico Eagle's team responded rapidly following this event and was able to implement a series of measures when the exceedance was reported.

Water quality data showed that the overall impact of this event in the receiving environment was minimal. Thus, we are confident that the aquatic environment was not impacted.

Agnico Eagle is committed to maintaining very close monitoring of this area.

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

Regards,

A handwritten signature in black ink, appearing to read 'R. Allard', is positioned above the printed name and title.

Robin Allard
General Supervisor
Environment

Appendix A

Results certificates

CLIENT INFORMATION

Aquatox/Agnico Eagle Mines - Meliadine
 Rankin Inlet,
 Nunavut, Canada
 Contact: Martina Rendas

TEST FACILITY INFORMATION

Harris Industrial Testing Service Ltd.
 1320 Ashdale Rd., South Rawdon
 Nova Scotia B0N 1Z0
 Ph: 902 757-0232 Fax: 902 757-2839 office@harrisindustrial.info

SAMPLE INFORMATION (Client-provided data italicised)

Lab Identification #: 20-412
Sample Name/Location: MEL-26 – 62°48'01.99" 92°06'00.05"
Sampling Method: Grab Sample Homogenized: Yes
Sampler Name: B. Hodgins
Date & Time Sampled: Aug. 10 2020 1725 Hrs
Date & Time Received: Aug. 14 2020 1530 Hrs
 Sample Description: Yellow, transparent liquid.

GENERAL TEST INFORMATION

Reference Method:
 EPS 1/RM/10 2nd Ed. December 2017
 Type: LC50 Tox 9B
 General Test Procedures held on file
 Test Organism: *Gasterosteus aculeatus*
 (Threespine stickleback)

PRE-TEST PARAMETERS

Pre-test Temp. (°C): 16.0
 Pre-test D.O. (mg/L): 6.1
 D.O. Saturation (%): 78

 Pre-test pH: 7.4
 pH Adjusted: No

 Sample Salinity¹ (‰): 32.1
 Seawater Control Salinity¹ (‰): 30.3

SAMPLE PRE-TREATMENT

Filtration of sample: No
 Adjustment of sample salinity: No

 Mandatory Pre-aeration: Yes Duration: 30 min.
 Rate: 6.5 ± 1 ml/min/L Time: 1615 hrs
 D.O. (mg/L): 7.8 D.O. saturation (%): 96

 Pre-aeration Continued: No Duration: -- min. @ -- hrs
 D.O. (mg/L): -- D.O. saturation (%): --
 Aeration continued throughout test by airstone @ 6.5 ± 1 ml/min/L

TEST CONDITIONS

Date & Time Test Initiated: Aug. 14 2020 1645 Hrs	Deviations from Test Method: No	
Date & Time Test Terminated: Aug. 18 2020 1645 Hrs	Description: N/A	
Fish Batch #: 63	Loading Density (g/L): 0.47	Temperature: 15 ± 1°C
% Mortality over 7 days prior to test: 0		Photoperiod: 16L/8D
	Mean Fork Length (mm): 44 ± 2.7 SD	Lux: 100 – 500
Test Volume (L): 15	Range (mm): 40 - 47	Static Test, Duration: 96 hours
Depth (cm): 26.8		Control/Dilution Water: Natural Seawater
Replicates: No	Mean Wet Weight (g): 0.71 ± 0.09 SD	
Number of fish per vessel: 10	Range (g): 0.61 – 0.91	

¹When salinity is >40‰, it is measured using refractometry method (Environment Canada, 2017). When salinity is <40‰, the salinity is measured using conductivity method (*ibid.*).

TEST PARAMETERS									
INITIAL (0 hrs)						FINAL (96 hrs)			
CONC. %	TEMP. °C	D.O. mg/L	D.O. %	pH	SALINITY ‰	TEMP. °C	D.O. mg/L	D.O. %	pH
100	15.0	7.8	96	7.4	32.1	16.0	7.7	96	7.6
50	16.0	7.5	91	7.7	28.9	16.0	7.8	95	7.8
25	16.0	7.6	91	7.8	27.5	16.0	7.9	97	7.8
12.5	16.0	8.0	96	7.8	28.9	16.0	8.0	100	7.8
6.25	16.0	7.8	95	7.9	29.6	16.0	7.9	98	7.8
Control	16.0	7.8	95	8.0	30.3	16.0	8.0	100	7.8

TEST RESULTS								
TOTAL MORTALITY					PERCENT MORTALITY			
CONC. %	#				%			
	24 hrs	48 hrs	72 hrs	96 hrs	24 hrs	48 hrs	72 hrs	96 hrs
100	0/10	0/10	0/10	0/10	0	0	0	0
50	0/10	0/10	0/10	0/10	0	0	0	0
25	0/10	0/10	0/10	0/10	0	0	0	0
12.5	0/10	0/10	0/10	0/10	0	0	0	0
6.25	0/10	0/10	0/10	0/10	0	0	0	0
Control	0/10	0/10	0/10	0/10	0	0	0	0

TOTAL STRESS					PERCENT STRESS			
CONC. %	#				%			
	24 hrs	48 hrs	72 hrs	96 hrs	24 hrs	48 hrs	72 hrs	96 hrs
100	0/10	0/10	0/10	0/10	0	0	0	0
50	0/10	0/10	0/10	0/10	0	0	0	0
25	0/10	0/10	0/10	0/10	0	0	0	0
12.5	0/10	0/10	0/10	0/10	0	0	0	0
6.25	0/10	0/10	0/10	0/10	0	0	0	0
Control	0/10	0/10	0/10	0/10	0	0	0	0

96 HR LC₅₀ RESULTS

LC₅₀ Value (%): Non-lethal
Result: Pass
95% Confidence Limits (%): N/A
Statistical Method: N/A

REFERENCE TOXICANT DATA

Performed under laboratory conditions as above, no deviations

Batch: 63 Test Date: Aug. 04 – 08 2020

Reference Substance: Phenol

LC₅₀ Value (mg/L): 16.8
 95% Confidence Limits (mg/L): 12.0 – 22.3
 Historical Mean (mg/L): 16.0
 Warning Limits \pm 2 SD (mg/L): 12.4 – 20.6

COMMENTS

Test meets all conditions for test validity.

TEST AUTHORIZATION AND VERIFICATION

Analyst(s): J. Fraser & S. Elliot

Verified by: D. Robinson

Date: Aug. 18 2020

Signed:



REFERENCES

Tidepool Scientific Software, 2001 - 2014. Comprehensive Environmental Toxicity Information System – CETIS v1.8.7.20
Environment Canada, 2017. Biological Test Method: Reference Method for Determining Acute Lethality Using Threespine Stickleback.
Environment and Climate Change Canada, Ottawa, Ontario, Report EPS 1/RM/10, 2nd Edition, December 2017.

Accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA Inc.).

The test included in this report is within the scope of this accreditation.

Results apply to the sample as received. The results reported apply only to the sample tested. Results are based on nominal concentrations.

CLIENT INFORMATION

Aquatox/Agnico Eagle Mines - Meliadine
 Rankin Inlet,
 Nunavut, Canada
 Contact: Martina Rendas

TEST FACILITY INFORMATION

Harris Industrial Testing Service Ltd.
 1320 Ashdale Rd., South Rawdon
 Nova Scotia B0N 1Z0
 Ph : 902 757-0232 Fax: 902 757-2839
 office@harrisindustrial.info

SAMPLE INFORMATION (Client-provided data italicised)

Lab Identification #: 20-426
Sample Name/Location: MEL-26 62°48'01.99" 92°06'00.05"
Sampling Method: Grab Sample Homogenized: Yes
Sampler Name: D. Morin
Date & Time Sampled: Aug. 16 2020 1030 Hrs
Date & Time Received: Aug. 20 2020 1430 Hrs
 Sample Description: Yellow, transparent liquid.

GENERAL TEST INFORMATION

Reference Method:
 EPS 1/RM/10 July 1990 2nd Ed. December 2017
 Type: LC50 Tox 9B
 General Test Procedures held on file
 Test Organism: *Gasterosteus aculeatus*
 (Threespine stickleback)

PRE-TEST PARAMETERS

Pre-test Temp. (°C): 16.0
 Pre-test D.O. (mg/L): 7.6 D.O. Saturation (%): 91
 Pre-test pH: 7.1
 pH Adjusted: No

Sample Salinity¹ (‰): 20.2
 Seawater Control Salinity¹ (‰): 31.4
 Salinity adjusted Control (‰): 21.3

SAMPLE PRE-TREATMENT

Filtration of sample: No
 Adjustment of sample salinity: No

Mandatory Pre-aeration: Yes Duration: 30 minutes
 Rate: 6.5 ± 1 ml/min/L Time: 1545 hrs
 D.O. (mg/L): 8.0 D.O. saturation (%): 90

Pre-aeration Continued: No Duration: -- min. @ -- hrs
 D.O. (mg/L): -- D.O. saturation (%): --

Aeration continued throughout test by airstone @ 6.5 ± 1 ml/min/L

TEST CONDITIONS

Date & Time Test Initiated: Aug. 20 2020 1615 Hrs
 Date & Time Test Terminated: Aug. 24 2020 1615 Hrs

Deviations from Test Method: No
 Description: N/A

Fish Batch #: 63
 % Mortality over 7 days prior to test: 0.6

Loading Density (g/L): 0.24

Temperature: 15 ± 1°C

Mean Fork Length (mm): 33 ± 5.3 SD

Photoperiod: 16L/8D

Range (mm): 28 - 44

Lux: 100 – 500

Test Volume (L): 13

Depth (cm): 23

Replicates: No

Number of fish per vessel: 10

Mean Wet Weight (g): 0.31 ± 0.15 SD

Range (g): 0.14 – 0.62

Static Test, Duration: 96 hours

Control/Dilution Water: Natural Seawater

¹When salinity is >40‰, it is measured using refractometry method (Environment Canada, 2017). When salinity is <40‰, the salinity is measured using conductivity method (*ibid.*).

TEST PARAMETERS									
CONC. %	TEMP. °C	D.O. mg/L	INITIAL (0 hrs)			TEMP. °C	D.O. mg/L	FINAL (96 hrs)	
			D.O. %	pH	SALINITY ‰			D.O. %	pH
100	14.5	8.0	90	7.2	20.2	15.0	8.9	100	7.7
50	14.5	8.4	94	7.5	20.6	15.5	8.6	99	7.7
25	16.0	8.6	100	7.8	20.8	16.0	8.7	99	7.8
12.5	15.0	8.9	99	7.9	21.5	15.5	8.7	99	7.8
6.25	15.5	8.8	100	8.0	21.4	15.0	8.6	99	7.9
Control	16.0	8.2	102	8.0	31.4	15.0	9.1	99	7.8
Sal. Adj. Control	15.5	10.0	101	8.0	21.3	15.0	8.7	99	7.8

TEST RESULTS									
CONC. %	TOTAL MORTALITY #				PERCENT MORTALITY %				
	24 hrs	48 hrs	72 hrs	96 hrs	24 hrs	48 hrs	72 hrs	96 hrs	
100	0/10	0/10	0/10	0/10	0	0	0	0	
50	0/10	0/10	0/10	0/10	0	0	0	0	
25	0/10	0/10	0/10	0/10	0	0	0	0	
12.5	0/10	0/10	0/10	0/10	0	0	0	0	
6.25	0/10	0/10	0/10	0/10	0	0	0	0	
Control	0/10	0/10	0/10	0/10	0	0	0	0	
Sal. Adj. Control	0/10	0/10	0/10	0/10	0	0	0	0	

CONC. %	TOTAL STRESS #				PERCENT STRESS %				
	24 hrs	48 hrs	72 hrs	96 hrs	24 hrs	48 hrs	72 hrs	96 hrs	
100	0/10	0/10	0/10	0/10	0	0	0	0	
50	0/10	0/10	0/10	0/10	0	0	0	0	
25	0/10	0/10	0/10	0/10	0	0	0	0	
12.5	0/10	0/10	0/10	0/10	0	0	0	0	
6.25	0/10	0/10	0/10	0/10	0	0	0	0	
Control	0/10	0/10	0/10	0/10	0	0	0	0	
Sal. Adj. Control	0/10	0/10	0/10	0/10	0	0	0	0	

96 HR LC₅₀ RESULTS

LC₅₀ Value (%): Non-lethal
Result: Pass
95% Confidence Limits (%): N/A
Statistical Method: N/A

REFERENCE TOXICANT DATA

Performed under laboratory conditions as above, no deviations

Batch: 63-3 Test Date: Aug. 21 – 25 2020

Reference Substance: Phenol

LC₅₀ Value (mg/L): 17.3
 95% Confidence Limits (mg/L): 16.2 – 18.4
 Historical Mean (mg/L): 16.1
 Warning Limits \pm 2 SD (mg/L): 12.5 – 20.7

COMMENTS

Test meets all conditions for test validity.

TEST AUTHORIZATION AND VERIFICATION

Analyst(s): J. Fraser & K. Marks

Verified by: D. Robinson

Date: Aug. 25 2020

Signed:



REFERENCES

Tidepool Scientific Software, 2001 - 2014. Comprehensive Environmental Toxicity Information System – CETIS v1.8.7.20
Environment Canada, 2017. Biological Test Method: Reference Method for Determining Acute Lethality Using Threespine Stickleback.
Environment and Climate Change Canada, Ottawa, Ontario, Report EPS 1/RM/10, 2nd Edition December 2017.

Accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA Inc.).

The test included in this report is within the scope of this accreditation.

Results apply to the sample as received. The results reported apply only to the sample tested. Results are based on nominal concentrations.

CLIENT INFORMATION

Aquatox/Agnico Eagle Mines - Meliadine
 Rankin Inlet,
 Nunavut, Canada
 Contact: Martina Rendas

TEST FACILITY INFORMATION

Harris Industrial Testing Service Ltd.
 1320 Ashdale Rd., South Rawdon
 Nova Scotia B0N 1Z0
 Ph: 902 757-0232 Fax: 902 757-2839 office@harrisindustrial.info

SAMPLE INFORMATION (Client-provided data italicised)

Lab Identification #: 20-437
Sample Name/Location: MEL-26 62°48'01.99" 92°06'00.05"
Sampling Method: Grab Sample Homogenized: Yes
Sampler Name: R. Schwandt
Date & Time Sampled: Aug. 23 2020 1120 Hrs
Date & Time Received: Aug. 27 2020 1615 Hrs
 Sample Description: Yellow, transparent liquid

GENERAL TEST INFORMATION

Reference Method:
 EPS 1/RM/10 2nd Ed. December 2017
 Type: LC50 Tox 9B
 General Test Procedures held on file
 Test Organism: *Gasterosteus aculeatus*
 (Threespine stickleback)

PRE-TEST PARAMETERS

Pre-test Temp. (°C): 16.0
 Pre-test D.O. (mg/L): 7.9
 D.O. Saturation (%): 93

Pre-test pH: 7.3
 pH Adjusted: No

Sample Salinity¹ (‰): 17.1
 Seawater Control Salinity¹ (‰): 30.2
 Salinity Adjusted Control (‰): 18.3

SAMPLE PRE-TREATMENT

Filtration of sample: No
 Adjustment of sample salinity: No

Mandatory Pre-aeration: Yes Duration: 30 min.
 Rate: 6.5 ± 1 ml/min/L Time: 0945 hrs
 D.O. (mg/L): 8.3 D.O. saturation (%): 92

Pre-aeration Continued: No Duration: -- min. @ -- hrs
 D.O. (mg/L): -- D.O. saturation (%): --

Aeration continued throughout test by airstone @ 6.5 + 1 ml/min/L

TEST CONDITIONS

Date & Time Test Initiated: Aug. 28 2020 1015 Hrs
 Date & Time Test Terminated: Sep. 01 2020 1015 Hrs

Deviations from Test Method: No
 Description: N/A

Fish Batch #: 63
 % Mortality over 7 days prior to test: 0.6

Loading Density (g/L): 0.26

Temperature: 15 ± 1°C

Photoperiod: 16L/8D

Test Volume (L): 10

Mean Fork Length (mm): 32 ± 3.9 SD

Lux: 100 – 500

Depth (cm): 17.7

Range (mm): 26 - 40

Static Test, Duration: 96 hours

Replicates: No

Mean Wet Weight (g): 0.26 ± 0.08 SD

Control/Dilution Water: Natural Seawater

Number of fish per vessel: 10

Range (g): 0.15 – 0.44

¹When salinity is >40‰, it is measured using refractometry method (Environment Canada, 2017). When salinity is <40‰, the salinity is measured using conductivity method (*ibid.*).

TEST PARAMETERS									
CONC. %	TEMP. °C	D.O. mg/L	INITIAL (0 hrs)			TEMP. °C	D.O. mg/L	FINAL (96 hrs)	
			D.O. %	pH	SALINITY ‰			D.O. %	pH
100	15.5	8.3	92	7.3	17.1	16.0	8.5	98	7.5
50	16.0	8.5	96	7.6	18.3	16.0	8.6	98	7.6
25	16.0	8.7	99	7.8	18.6	16.0	8.4	96	7.7
12.5	16.0	8.8	100	7.9	19.0	16.0	8.5	96	7.7
6.25	16.0	8.8	100	8.0	19.0	16.0	8.5	97	7.8
Control	16.0	8.1	99	8.0	30.2	16.0	7.8	97	7.7
Sal. Adj. Control	16.0	8.9	100	7.8	18.3	16.0	8.9	98	8.0

TEST RESULTS								
CONC. %	TOTAL MORTALITY #				PERCENT MORTALITY %			
	24 hrs	48 hrs	72 hrs	96 hrs	24 hrs	48 hrs	72 hrs	96 hrs
100	0/10	0/10	0/10	0/10	0	0	0	0
50	0/10	0/10	0/10	0/10	0	0	0	0
25	0/10	0/10	0/10	0/10	0	0	0	0
12.5	0/10	0/10	0/10	0/10	0	0	0	0
6.25	0/10	0/10	0/10	0/10	0	0	0	0
Control	0/10	0/10	0/10	0/10	0	0	0	0
Sal. Adj. Control	0/10	0/10	0/10	0/10	0	0	0	0

CONC. %	TOTAL STRESS #				PERCENT STRESS %			
	24 hrs	48 hrs	72 hrs	96 hrs	24 hrs	48 hrs	72 hrs	96 hrs
100	0/10	0/10	0/10	0/10	0	0	0	0
50	0/10	0/10	0/10	0/10	0	0	0	0
25	0/10	0/10	0/10	0/10	0	0	0	0
12.5	0/10	0/10	0/10	0/10	0	0	0	0
6.25	0/10	0/10	0/10	0/10	0	0	0	0
Control	0/10	0/10	0/10	0/10	0	0	0	0
Sal. Adj. Control	0/10	0/10	0/10	0/10	0	0	0	0

96 HR LC₅₀ RESULTS

LC₅₀ Value (%): Non-lethal
Result: Pass
95% Confidence Limits (%): N/A
Statistical Method: N/A

REFERENCE TOXICANT DATA

Performed under laboratory conditions as above, no deviations

Batch: 63 **Test Date:** Aug. 21 – 25 2020
Reference Substance: Phenol

LC₅₀ Value (mg/L): 17.3
95% Confidence Limits (mg/L): 16.2 – 18.4
Historical Mean (mg/L): 16.1
Warning Limits \pm 2 SD (mg/L): 12.5 – 20.7

COMMENTS

Test meets all conditions for test validity.

TEST AUTHORIZATION AND VERIFICATION

Analyst(s): J. Fraser

Verified by: D. Robinson

Date: Sep. 01 2020

Signed: 

REFERENCES

Tidepool Scientific Software, 2001 - 2014. Comprehensive Environmental Toxicity Information System – CETIS v1.8.7.20
Environment Canada, 2017. Biological Test Method: Reference Method for Determining Acute Lethality Using Threespine Stickleback.
Environment and Climate Change Canada, Ottawa, Ontario, Report EPS 1/RM/10, 2nd Edition, December 2017.

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CLIENT INFORMATION

Aquatox/Agnico Eagle Mines - Meliadine
 Rankin Inlet,
 Nunavut, Canada
 Contact: Martina Rendas

TEST FACILITY INFORMATION

Harris Industrial Testing Service Ltd.
 1320 Ashdale Rd., South Rawdon
 Nova Scotia B0N 1Z0
 Ph : 902 757-0232 Fax: 902 757-2839
 office@harrisindustrial.info

SAMPLE INFORMATION (Client-provided data italicised)

Lab Identification #: 20-449
Sample Name/Location: MEL-26 62°48'01.99" 92°06'00.05"
Sampling Method: Grab Sample Homogenized: Yes
Sampler Name: R.S
Date & Time Sampled: Aug. 31 2020 1445 Hrs
Date & Time Received: Sep. 04 2020 1530 Hrs
 Sample Description: Yellow, transparent liquid.

GENERAL TEST INFORMATION

Reference Method:
 EPS 1/RM/10 July 1990 2nd Ed. December 2017
 Type: LC50 Tox 9B
 General Test Procedures held on file
 Test Organism: *Gasterosteus aculeatus*
 (Threespine stickleback)

PRE-TEST PARAMETERS

Pre-test Temp. (°C): 16.0
 Pre-test D.O. (mg/L): 7.7 D.O. Saturation (%): 91
 Pre-test pH: 7.1
 pH Adjusted: No

Sample Salinity¹ (‰): 16.9
 Seawater Control Salinity¹ (‰): 31.0
 Salinity adjusted Control (‰): 17.8

SAMPLE PRE-TREATMENT

Filtration of sample: No
 Adjustment of sample salinity: No

Mandatory Pre-aeration: Yes Duration: 30 minutes
 Rate: 6.5 ± 1 ml/min/L Time: 1600 hrs
 D.O. (mg/L): 7.8 D.O. saturation (%): 88

Pre-aeration Continued: No Duration: -- min. @ -- hrs
 D.O. (mg/L): -- D.O. saturation (%): --

Aeration continued throughout test by airstone @ 6.5 ± 1 ml/min/L

TEST CONDITIONS

Date & Time Test Initiated: Sep. 04 2020 1630 Hrs
 Date & Time Test Terminated: Sep. 08 2020 1630 Hrs

Deviations from Test Method: No
 Description: N/A

Fish Batch #: 63
 % Mortality over 7 days prior to test: 0.7

Loading Density (g/L): 0.36

Temperature: 15 ± 1°C

Mean Fork Length (mm): 34 ± 3.5 SD

Photoperiod: 16L/8D

Range (mm): 30 - 41

Lux: 100 – 500

Test Volume (L): 10

Depth (cm): 17.7

Replicates: No

Number of fish per vessel: 10

Mean Wet Weight (g): 0.36 ± 0.20 SD

Range (g): 0.19 – 0.80

Static Test, Duration: 96 hours

Control/Dilution Water: Natural Seawater

¹When salinity is >40‰, it is measured using refractometry method (Environment Canada, 2017). When salinity is <40‰, the salinity is measured using conductivity method (*ibid.*).

TEST PARAMETERS									
CONC. %	TEMP. °C	D.O. mg/L	INITIAL (0 hrs)			TEMP. °C	D.O. mg/L	FINAL (96 hrs)	
			D.O. %	pH	SALINITY ‰			D.O. %	pH
100	16.0	7.8	88	7.1	16.7	15.5	8.8	99	7.4
50	16.0	8.9	100	7.6	18.0	15.5	8.7	97	7.5
25	16.0	8.8	100	7.8	18.4	15.5	8.7	98	7.6
12.5	16.0	8.8	100	7.8	18.6	15.5	8.8	98	7.7
6.25	16.0	8.7	98	7.9	17.9	15.5	8.8	99	7.6
Control	16.0	8.1	99	7.9	31.0	15.5	8.0	98	7.7
Sal. Adj. Control	15.5	8.9	99	7.8	17.8	15.5	8.9	99	7.8

TEST RESULTS									
CONC. %		TOTAL MORTALITY #				PERCENT MORTALITY %			
		24 hrs	48 hrs	72 hrs	96 hrs	24 hrs	48 hrs	72 hrs	96 hrs
100		0/10	0/10	0/10	0/10	0	0	0	0
50		0/10	0/10	0/10	0/10	0	0	0	0
25		0/10	0/10	0/10	0/10	0	0	0	0
12.5		0/10	0/10	0/10	0/10	0	0	0	0
6.25		0/10	0/10	0/10	0/10	0	0	0	0
Control		0/10	0/10	0/10	0/10	0	0	0	0
Sal. Adj. Control		0/10	0/10	0/10	0/10	0	0	0	0

CONC. %		TOTAL STRESS #				PERCENT STRESS %			
		24 hrs	48 hrs	72 hrs	96 hrs	24 hrs	48 hrs	72 hrs	96 hrs
100		0/10	0/10	0/10	0/10	0	0	0	0
50		0/10	0/10	0/10	0/10	0	0	0	0
25		0/10	0/10	0/10	0/10	0	0	0	0
12.5		0/10	0/10	0/10	0/10	0	0	0	0
6.25		0/10	0/10	0/10	0/10	0	0	0	0
Control		0/10	0/10	0/10	0/10	0	0	0	0
Sal. Adj. Control		0/10	0/10	0/10	0/10	0	0	0	0

96 HR LC₅₀ RESULTS

LC₅₀ Value (%): Non-lethal
Result: Pass
95% Confidence Limits (%): N/A
Statistical Method: N/A

REFERENCE TOXICANT DATA

Performed under laboratory conditions as above, no deviations

Batch: 63-4

Test Date: Sep. 02 – 06 2020

Reference Substance: Phenol

LC₅₀ Value (mg/L): 14.3
 95% Confidence Limits (mg/L): 11.0 – 18.6
 Historical Mean (mg/L): 15.9
 Warning Limits \pm 2 SD (mg/L): 12.4 – 20.5

COMMENTS

Test meets all conditions for test validity.

TEST AUTHORIZATION AND VERIFICATION

Analyst(s): J. Fraser

Verified by: D. Robinson

Date: Sep. 08 2020

Signed:



REFERENCES

Tidepool Scientific Software, 2001 - 2014. Comprehensive Environmental Toxicity Information System – CETIS v1.8.7.20
Environment Canada, 2017. Biological Test Method: Reference Method for Determining Acute Lethality Using Threespine Stickleback.
Environment and Climate Change Canada, Ottawa, Ontario, Report EPS 1/RM/10, 2nd Edition December 2017.

Accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA Inc.).

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Your P.O. #: OL-891917
 Site#: 62 78' 01.99" 92 06' 00.05"
 Site Location: MELIADINE
 Your C.O.C. #: na

Attention: Reporting

Agnico-Eagle
 Meliadine
 Meliadine Mine
 Rankin Inlet, NU
 CANADA X0C 0G0

Report Date: 2020/08/21
 Report #: R6301778
 Version: 3 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C0K7149

Received: 2020/08/13, 09:40

Sample Matrix: Water
 # Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity (1)	1	N/A	2020/08/17	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide (1)	1	N/A	2020/08/18	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry (1)	1	N/A	2020/08/19	CAM SOP-00463	SM 23 4500-Cl E m
Conductivity (1)	1	N/A	2020/08/17	CAM SOP-00414	SM 23 2510 m
Free (WAD) Cyanide (1)	1	N/A	2020/08/17	CAM SOP-00457	OMOE E3015 m
Total Cyanide (1)	1	2020/08/17	2020/08/17	CAM SOP-00457	OMOE E3015 5 m
Dissolved Organic Carbon (DOC) (1, 5)	1	N/A	2020/08/17	CAM SOP-00446	SM 23 5310 B m
Dissolved Oxygen (1)	1	2020/08/14	2020/08/14	CAM SOP-00427	SM 23 4500 O G m
Fluoride (1)	1	2020/08/18	2020/08/19	CAM SOP-00449	SM 23 4500-F C m
Dissolved Mercury (low level) (1)	1	2020/08/17	2020/08/17	CAM SOP-00453	EPA 7470 m
Mercury (low level) (1)	1	2020/08/17	2020/08/17	CAM SOP-00453	EPA 7470 m
Chloride & Sulphate by Auto Colorimetry (2)	1	N/A	2020/08/18	AB SOP-00020 / AB SOP-00018	SM23 4500-CL/SO4-E m
Cyanide (Free) (2)	1	2020/08/17	2020/08/17	CAL SOP-00266	EPA 9016d R0 m
Conductivity @25C (2)	1	N/A	2020/08/17	AB SOP-00005	SM 23 2510 B m
Hardness Total (calculated as CaCO3) (3, 6)	1	N/A	2020/08/17	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3) (3)	1	N/A	2020/08/17	BBY WI-00033	Auto Calc
Elements by ICP-Dissolved-Lab Filtered (2)	1	N/A	2020/08/18	AB SOP-00042	EPA 6010d R5 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.) (3)	1	N/A	2020/08/17	BBY7SOP-00002	EPA 6020B R2 m
Elements by CRC ICPMS (dissolved) (3)	1	N/A	2020/08/17	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total) (3)	1	2020/08/14	2020/08/17	BBY7SOP-00002	EPA 6020B R2 m
Elements by CRC ICPMS (total) (3)	1	2020/08/16	2020/08/17	BBY7SOP-00003/02	EPA 6020B R2 m
pH @25°C (2, 7)	1	N/A	2020/08/17	AB SOP-00005	SM 23 4500-H+B m
Sodium Adsorption Ratio (2)	1	N/A	2020/08/18		Auto Calc
Silica (Reactive) (2)	1	N/A	2020/08/17	AB SOP-00011	EPA370.1 R1978 m
Total Dissolved Solids (Calc. from EC) (2)	1	N/A	2020/08/18		Auto Calc
Total Ammonia-N (1)	1	N/A	2020/08/17	CAM SOP-00441	USGS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1, 8)	1	N/A	2020/08/17	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH (1)	1	2020/08/14	2020/08/17	CAM SOP-00413	SM 4500H+ B m
Orthophosphate (1)	1	N/A	2020/08/17	CAM SOP-00461	EPA 365.1 m



Your P.O. #: OL-891917
 Site#: 62 78' 01.99" 92 06' 00.05"
 Site Location: MELIADINE
 Your C.O.C. #: na

Attention: Reporting

Agnico-Eagle
 Meliadine
 Meliadine Mine
 Rankin Inlet, NU
 CANADA X0C 0G0

Report Date: 2020/08/21
 Report #: R6301778
 Version: 3 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C0K7149

Received: 2020/08/13, 09:40

Sample Matrix: Water
 # Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Radium-226 Low Level (4, 9)	1	N/A	2020/08/20	BQL SOP-00006 BQL SOP-00017 BQL SOP-00032	Alpha Spectrometry
Sulphate by Automated Colourimetry (1)	1	N/A	2020/08/17	CAM SOP-00464	EPA 375.4 m
Calculated Total Dissolved Solids (1)	1	N/A	2020/08/19		Auto Calc
Total Dissolved Solids (1)	1	2020/08/14	2020/08/17	CAM SOP-00428	SM 23 2540C m
Total Kjeldahl Nitrogen in Water (1)	1	2020/08/14	2020/08/17	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (1, 10)	1	N/A	2020/08/17	CAM SOP-00446	SM 23 5310B m
Total Phosphorus (Colourimetric) (1)	1	2020/08/17	2020/08/17	CAM SOP-00407	SM 23 4500 P B H m
Low Level Total Suspended Solids (1)	1	2020/08/15	2020/08/17	CAM SOP-00428	SM 23 2540D m
Turbidity (1)	1	N/A	2020/08/17	CAM SOP-00417	SM 23 2130 B m
Low Level Volatile Suspended Solids (1)	1	2020/08/15	2020/08/18	CAM SOP-00428	SM 23 2540

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs 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 BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs 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.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs 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 BV Labs, unless otherwise agreed in writing. BV Labs 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 BV Labs, 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.



Your P.O. #: OL-891917
Site#: 62 78' 01.99" 92 06' 00.05"
Site Location: MELIADINE
Your C.O.C. #: na

Attention: Reporting

Agnico-Eagle
Meliadine
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2020/08/21
Report #: R6301778
Version: 3 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C0K7149

Received: 2020/08/13, 09:40

- (1) This test was performed by Bureau Veritas Laboratories Mississauga
- (2) This test was performed by BVLabs Calgary via Mississauga
- (3) This test was performed by BVLabs Burnaby via Mississauga
- (4) This test was performed by Bureau Veritas Laboratories Kitimat
- (5) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
- (6) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (7) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas Laboratories endeavours to analyze samples as soon as possible after receipt.
- (8) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (9) Radium-226 results have not been corrected for blanks.
- (10) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

Encryption Key

Katherine Szozda
Project Manager
21 Aug 2020 15:40:12

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

Katherine Szozda, Project Manager
Email: Katherine.Szozda@bvlabs.com
Phone# (613) 274-0573

=====

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 #: COK7149

Report Date: 2020/08/21

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: TG

SALINITY IN WATER (WATER)

BV Labs ID		NJG721		
Sampling Date		2020/08/10 17:25		
COC Number		na		
	UNITS	MEL-26	RDL	QC Batch
Calculated Parameters				
Sodium Adsorption Ratio	N/A	28	0.10	6895860
Total dissolved solids (calc., EC)	mg/L	32000	10	6895861
ELEMENTS				
Dissolved Calcium (Ca)	mg/L	1300 (1)	15	6895858
Dissolved Magnesium (Mg)	mg/L	760 (1)	10	6895858
Dissolved Potassium (K)	mg/L	220	0.30	6895858
Dissolved Sodium (Na)	mg/L	5200 (1)	25	6895858
Inorganics				
Dissolved Chloride (Cl-)	mg/L	12000 (1)	100	6895856
Conductivity	uS/cm	32000	2.0	6895857
pH	pH	7.60	N/A	6895859
Dissolved Sulphate (SO4)	mg/L	1200 (1)	10	6895856
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable (1) Detection limits raised due to dilution to bring analyte within the calibrated range.				



BUREAU
VERITAS

BV Labs Job #: COK7149

Report Date: 2020/08/21

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: TG

DISS. ICPMS METALS FOR FEDERAL INT. GWQG (WATER)

BV Labs ID		NJG721		
Sampling Date		2020/08/10 17:25		
COC Number		na		
	UNITS	MEL-26	RDL	QC Batch
Calculated Parameters				
Dissolved Hardness (CaCO ₃)	mg/L	6280	0.50	6895437
Metals				
Dissolved Aluminum (Al)	ug/L	212	60	6895439
Dissolved Antimony (Sb)	ug/L	<10	10	6895439
Dissolved Arsenic (As)	ug/L	14.5	2.0	6895439
Dissolved Barium (Ba)	ug/L	274	20	6895439
Dissolved Beryllium (Be)	ug/L	<2.0	2.0	6895439
Dissolved Bismuth (Bi)	ug/L	<20	20	6895439
Dissolved Boron (B)	ug/L	<1000	1000	6895439
Dissolved Cadmium (Cd)	ug/L	0.26	0.20	6895439
Dissolved Chromium (Cr)	ug/L	<20	20	6895439
Dissolved Cobalt (Co)	ug/L	9.7	4.0	6895439
Dissolved Copper (Cu)	ug/L	6.3	4.0	6895439
Dissolved Iron (Fe)	ug/L	<100	100	6895439
Dissolved Lead (Pb)	ug/L	5.3	4.0	6895439
Dissolved Lithium (Li)	ug/L	640	40	6895439
Dissolved Manganese (Mn)	ug/L	374	20	6895439
Dissolved Molybdenum (Mo)	ug/L	<20	20	6895439
Dissolved Nickel (Ni)	ug/L	55	20	6895439
Dissolved Selenium (Se)	ug/L	<2.0	2.0	6895439
Dissolved Silicon (Si)	ug/L	2040	2000	6895439
Dissolved Silver (Ag)	ug/L	<0.40	0.40	6895439
Dissolved Strontium (Sr)	ug/L	29900	20	6895439
Dissolved Thallium (Tl)	ug/L	<0.20	0.20	6895439
Dissolved Tin (Sn)	ug/L	<100	100	6895439
Dissolved Titanium (Ti)	ug/L	<100	100	6895439
Dissolved Uranium (U)	ug/L	5.5	2.0	6895439
Dissolved Vanadium (V)	ug/L	<100	100	6895439
Dissolved Zinc (Zn)	ug/L	<100	100	6895439
Dissolved Zirconium (Zr)	ug/L	<2.0	2.0	6895439
Dissolved Calcium (Ca)	mg/L	1280	1.0	6895438
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BUREAU
VERITAS

BV Labs Job #: COK7149
Report Date: 2020/08/21

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: TG

DISS. ICPMS METALS FOR FEDERAL INT. GWQG (WATER)

BV Labs ID		NJG721		
Sampling Date		2020/08/10 17:25		
COC Number		na		
	UNITS	MEL-26	RDL	QC Batch
Dissolved Magnesium (Mg)	mg/L	748	1.0	6895438
Dissolved Potassium (K)	mg/L	225	1.0	6895438
Dissolved Sodium (Na)	mg/L	5320	1.0	6895438
Dissolved Sulphur (S)	mg/L	495	60	6895438
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BUREAU
VERITAS

BV Labs Job #: COK7149

Report Date: 2020/08/21

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: TG

TOTAL ICPMS METALS FOR CCME CEQG FOR SW (WATER)

BV Labs ID		NJG721		
Sampling Date		2020/08/10 17:25		
COC Number		na		
	UNITS	MEL-26	RDL	QC Batch
Metals				
Total Aluminum (Al)	ug/L	404	60	6895436
Total Antimony (Sb)	ug/L	<10	10	6895436
Total Arsenic (As)	ug/L	14.7	2.0	6895436
Total Barium (Ba)	ug/L	258	20	6895436
Total Beryllium (Be)	ug/L	<2.0	2.0	6895436
Total Bismuth (Bi)	ug/L	<20	20	6895436
Total Boron (B)	ug/L	<1000	1000	6895436
Total Cadmium (Cd)	ug/L	<0.20	0.20	6895436
Total Chromium (Cr)	ug/L	<20	20	6895436
Total Cobalt (Co)	ug/L	9.6	4.0	6895436
Total Copper (Cu)	ug/L	<10	10	6895436
Total Iron (Fe)	ug/L	<200	200	6895436
Total Lead (Pb)	ug/L	5.1	4.0	6895436
Total Lithium (Li)	ug/L	620	40	6895436
Total Manganese (Mn)	ug/L	356	20	6895436
Total Molybdenum (Mo)	ug/L	<20	20	6895436
Total Nickel (Ni)	ug/L	54	20	6895436
Total Selenium (Se)	ug/L	<2.0	2.0	6895436
Total Silicon (Si)	ug/L	2040	2000	6895436
Total Silver (Ag)	ug/L	<0.40	0.40	6895436
Total Strontium (Sr)	ug/L	28800	20	6895436
Total Thallium (Tl)	ug/L	<0.20	0.20	6895436
Total Tin (Sn)	ug/L	<100	100	6895436
Total Titanium (Ti)	ug/L	<100	100	6895436
Total Uranium (U)	ug/L	5.4	2.0	6895436
Total Vanadium (V)	ug/L	<100	100	6895436
Total Zinc (Zn)	ug/L	<100	100	6895436
Total Zirconium (Zr)	ug/L	<2.0	2.0	6895436
Total Calcium (Ca)	ug/L	1240000	1000	6895435
Total Magnesium (Mg)	ug/L	699000	1000	6895435
Total Potassium (K)	ug/L	215000	1000	6895435
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BV Labs Job #: COK7149
Report Date: 2020/08/21

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: TG

TOTAL ICPMS METALS FOR CCME CEQG FOR SW (WATER)

BV Labs ID		NJG721		
Sampling Date		2020/08/10 17:25		
COC Number		na		
	UNITS	MEL-26	RDL	QC Batch
Total Sodium (Na)	ug/L	5020000	1000	6895435
Total Sulphur (S)	ug/L	465000	60000	6895435
Calculated Parameters				
Total Hardness (CaCO3)	ug/L	5980000	500	6895434
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BV Labs Job #: COK7149
Report Date: 2020/08/21

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: TG

RESULTS OF ANALYSES OF WATER

BV Labs ID		NJG721			NJG721		
Sampling Date		2020/08/10 17:25			2020/08/10 17:25		
COC Number		na			na		
	UNITS	MEL-26	RDL	QC Batch	MEL-26 Lab-Dup	RDL	QC Batch
Calculated Parameters							
Bicarb. Alkalinity (calc. as CaCO ₃)	mg/L	93	1.0	6889991			
Calculated TDS	mg/L	19000	1.0	6890239			
Carb. Alkalinity (calc. as CaCO ₃)	mg/L	<1.0	1.0	6889991			
Inorganics							
Total Ammonia-N	mg/L	36	0.25	6890402			
Conductivity	umho/cm	32000	1.0	6890598			
Free Cyanide (CN)	ug/L	16	1.0	6895863			
Total Dissolved Solids	mg/L	21200	20	6890934			
Fluoride (F-)	mg/L	<0.10	0.10	6895167			
Total Kjeldahl Nitrogen (TKN)	mg/L	43	5.0	6890046	49	5.0	6890046
Dissolved Organic Carbon	mg/L	22	0.40	6890548			
Total Organic Carbon (TOC)	mg/L	22	0.40	6890434			
Orthophosphate (P)	mg/L	<0.010	0.010	6892022			
Dissolved Oxygen	mg/L	9.64		6890828	9.65		6890828
pH	pH	7.50		6890601			
Total Phosphorus	mg/L	0.057	0.020	6892527			
Reactive Silica (SiO ₂)	mg/L	3.8 (1)	0.25	6895862			
Total Suspended Solids	mg/L	25	1	6891997			
Dissolved Sulphate (SO ₄)	mg/L	1200	5.0	6892023			
Total Cyanide (CN)	mg/L	0.059	0.0050	6892715	0.060	0.0050	6892715
Turbidity	NTU	2.1	0.1	6890721	2.1	0.1	6890721
Volatile Suspended Solids	mg/L	15	1	6891998			
WAD Cyanide (Free)	mg/L	0.011	0.0010	6892712	0.012	0.0010	6892712
Alkalinity (Total as CaCO ₃)	mg/L	93	1.0	6890592			
Dissolved Chloride (Cl-)	mg/L	11000	120	6892021			
Nitrite (N)	mg/L	1.23	0.010	6890615			
Nitrate (N)	mg/L	65.0	0.50	6890615			
Nitrate + Nitrite (N)	mg/L	66.2	0.50	6890615			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate (1) Detection limits raised due to dilution to bring analyte within the calibrated range.							



BUREAU
VERITAS

BV Labs Job #: COK7149
Report Date: 2020/08/21

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: TG

RESULTS OF ANALYSES OF WATER

BV Labs ID		NJG721			NJG721		
Sampling Date		2020/08/10 17:25			2020/08/10 17:25		
COC Number		na			na		
	UNITS	MEL-26	RDL	QC Batch	MEL-26 Lab-Dup	RDL	QC Batch
RADIONUCLIDE							
Radium-226	Bq/L	0.22	0.0050	6889746			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							



BV Labs Job #: COK7149
Report Date: 2020/08/21

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: TG

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		NJG721			NJG721		
Sampling Date		2020/08/10 17:25			2020/08/10 17:25		
COC Number		na			na		
	UNITS	MEL-26	RDL	QC Batch	MEL-26 Lab-Dup	RDL	QC Batch
Metals							
Mercury (Hg)	mg/L	<0.00001	0.00001	6893001			
Dissolved Mercury (Hg)	mg/L	0.00001	0.00001	6893006	0.00001	0.00001	6893006
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							



BV Labs Job #: COK7149
Report Date: 2020/08/21

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: TG

TEST SUMMARY

BV Labs ID: NJG721
Sample ID: MEL-26
Matrix: Water

Collected: 2020/08/10
Shipped:
Received: 2020/08/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	6890592	N/A	2020/08/17	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	6889991	N/A	2020/08/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	6892021	N/A	2020/08/19	Kazzandra Adeva
Conductivity	AT	6890598	N/A	2020/08/17	Surinder Rai
Free (WAD) Cyanide	SKAL/CN	6892712	N/A	2020/08/17	Louise Harding
Total Cyanide	SKAL/CN	6892715	2020/08/17	2020/08/17	Louise Harding
Dissolved Organic Carbon (DOC)	TOCV/NDIR	6890548	N/A	2020/08/17	Nimarta Singh
Dissolved Oxygen	DO	6890828	2020/08/14	2020/08/14	Navjot Kaur Gill
Fluoride	ISE	6895167	2020/08/18	2020/08/19	Surinder Rai
Dissolved Mercury (low level)	CV/AA	6893006	2020/08/17	2020/08/17	Medhat Nasr
Mercury (low level)	CV/AA	6893001	2020/08/17	2020/08/17	Medhat Nasr
Chloride & Sulphate by Auto Colorimetry	KONE	6895856	N/A	2020/08/18	Serena Tian
Cyanide (Free)	SPEC	6895863	2020/08/17	2020/08/17	Taylor Mullings
Conductivity @25C	COND	6895857	N/A	2020/08/17	Coralynn Topping
Hardness Total (calculated as CaCO ₃)	CALC	6895434	N/A	2020/08/17	Automated Statchk
Hardness (calculated as CaCO ₃)	CALC	6895437	N/A	2020/08/17	Automated Statchk
Elements by ICP-Dissolved-Lab Filtered	ICP	6895858	N/A	2020/08/18	Mary Anne Dela Cruz
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	ICP	6895438	N/A	2020/08/17	Automated Statchk
Elements by CRC ICPMS (dissolved)	ICP/MS	6895439	N/A	2020/08/17	Andrew An
Na, K, Ca, Mg, S by CRC ICPMS (total)	ICP	6895435	2020/08/17	2020/08/17	Automated Statchk
Elements by CRC ICPMS (total)	ICP/MS	6895436	2020/08/16	2020/08/17	Andrew An
pH @25°C	AT/PH	6895859	N/A	2020/08/17	Coralynn Topping
Sodium Adsorption Ratio	CALC	6895860	N/A	2020/08/18	Automated Statchk
Silica (Reactive)	KONE	6895862	N/A	2020/08/17	Serena Tian
Total Dissolved Solids (Calc. from EC)	CALC	6895861	N/A	2020/08/18	Automated Statchk
Total Ammonia-N	LACH/NH ₄	6890402	N/A	2020/08/17	Amanpreet Sappal
Nitrate (NO ₃) and Nitrite (NO ₂) in Water	LACH	6890615	N/A	2020/08/17	Chandra Nandlal
pH	AT	6890601	2020/08/14	2020/08/17	Surinder Rai
Orthophosphate	KONE	6892022	N/A	2020/08/17	Kazzandra Adeva
Radium-226 Low Level	AS	6889746	N/A	2020/08/20	Blake Barber
Sulphate by Automated Colourimetry	KONE	6892023	N/A	2020/08/17	Kazzandra Adeva
Calculated Total Dissolved Solids	CALC	6890239	N/A	2020/08/19	Automated Statchk
Total Dissolved Solids	BAL	6890934	2020/08/14	2020/08/17	Shivani Desai
Total Kjeldahl Nitrogen in Water	SKAL	6890046	2020/08/14	2020/08/17	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	6890434	N/A	2020/08/17	Nimarta Singh
Total Phosphorus (Colourimetric)	LACH/P	6892527	2020/08/17	2020/08/17	Shivani Shivani
Low Level Total Suspended Solids	BAL	6891997	2020/08/15	2020/08/17	Shivani Desai
Turbidity	AT	6890721	N/A	2020/08/17	Neil Dassanayake
Low Level Volatile Suspended Solids	BAL	6891998	2020/08/15	2020/08/18	Shivani Desai



BV Labs Job #: COK7149
Report Date: 2020/08/21

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: TG

TEST SUMMARY

BV Labs ID: NJG721 Dup
Sample ID: MEL-26
Matrix: Water

Collected: 2020/08/10
Shipped:
Received: 2020/08/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	SKAL/CN	6892712	N/A	2020/08/17	Louise Harding
Total Cyanide	SKAL/CN	6892715	2020/08/17	2020/08/17	Louise Harding
Dissolved Oxygen	DO	6890828	2020/08/14	2020/08/14	Navjot Kaur Gill
Dissolved Mercury (low level)	CV/AA	6893006	2020/08/17	2020/08/17	Medhat Nasr
Total Kjeldahl Nitrogen in Water	SKAL	6890046	2020/08/14	2020/08/17	Rajni Tyagi
Turbidity	AT	6890721	N/A	2020/08/17	Neil Dassanayake



GENERAL COMMENTS

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

Package 1	14.3°C
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Sample NJG721 [MEL-26] : Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results

Sample was not submitted in an appropriate container for free cyanide analysis. Results may have a high bias due to decomposition of hexacyanoferrate and some other metal-cyanide complexes to free cyanide

Sample pH <12, preservation incomplete. Due to volatility of analyte, a low bias in the results is likely.

DISS. ICPMS METALS FOR FEDERAL INT. GWQG (WATER)

Sample NJG721 [MEL-26] Elements by CRC ICPMS (dissolved): RDL raised due to concentration over linear range, sample dilution required.

TOTAL ICPMS METALS FOR CCME CEQG FOR SW (WATER)

Sample NJG721 [MEL-26] Elements by CRC ICPMS (total): RDL raised due to concentration over linear range, sample dilution required.

Results relate only to the items tested.



BV Labs Job #: COK7149
Report Date: 2020/08/21

QUALITY ASSURANCE REPORT

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: TG

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6889746	Radium-226	2020/08/20			105	85 - 115	<0.0050	Bq/L	NC	N/A		
6890046	Total Kjeldahl Nitrogen (TKN)	2020/08/17	NC	80 - 120	101	80 - 120	<0.10	mg/L	14	20	100	80 - 120
6890402	Total Ammonia-N	2020/08/17	NC	75 - 125	100	80 - 120	<0.050	mg/L	1.5	20		
6890434	Total Organic Carbon (TOC)	2020/08/17	91	80 - 120	99	80 - 120	<0.40	mg/L	1.7	20		
6890548	Dissolved Organic Carbon	2020/08/17	96	80 - 120	100	80 - 120	<0.40	mg/L	0.31	20		
6890592	Alkalinity (Total as CaCO3)	2020/08/17			97	85 - 115	<1.0	mg/L	3.1	20		
6890598	Conductivity	2020/08/17			101	85 - 115	<1.0	umho/cm	0	25		
6890601	pH	2020/08/17			102	98 - 103			0.21	N/A		
6890615	Nitrate (N)	2020/08/17	85	80 - 120	100	80 - 120	<0.10	mg/L	0.090	20		
6890615	Nitrite (N)	2020/08/17	102	80 - 120	108	80 - 120	<0.010	mg/L	0.83	20		
6890721	Turbidity	2020/08/17			111	85 - 115	<0.1	NTU	2.9	20		
6890934	Total Dissolved Solids	2020/08/17					<10	mg/L	6.3	25	102	90 - 110
6891997	Total Suspended Solids	2020/08/17					<1	mg/L	NC	25	96	85 - 115
6891998	Volatile Suspended Solids	2020/08/18					<1	mg/L	NC	25		
6892021	Dissolved Chloride (Cl-)	2020/08/19	100	80 - 120	104	80 - 120	<1.0	mg/L	2.8	20		
6892022	Orthophosphate (P)	2020/08/17	98	75 - 125	102	80 - 120	<0.010	mg/L	NC	25		
6892023	Dissolved Sulphate (SO4)	2020/08/17	101	75 - 125	103	80 - 120	<1.0	mg/L	1.4	20		
6892527	Total Phosphorus	2020/08/17	98	80 - 120	99	80 - 120	<0.020	mg/L	0.38	20	97	80 - 120
6892712	WAD Cyanide (Free)	2020/08/17	82	80 - 120	95	80 - 120	<0.0010	mg/L	5.3	20		
6892715	Total Cyanide (CN)	2020/08/17	86	80 - 120	100	80 - 120	<0.0050	mg/L	2.4	20		
6893001	Mercury (Hg)	2020/08/17	96	75 - 125	97	80 - 120	<0.00001	mg/L	NC	20		
6893006	Dissolved Mercury (Hg)	2020/08/17	92	75 - 125	97	80 - 120	<0.00001	mg/L	8.9	20		
6895167	Fluoride (F-)	2020/08/19	116	80 - 120	108	80 - 120	<0.10	mg/L	16	20		
6895436	Total Aluminum (Al)	2020/08/17	107	80 - 120	105	80 - 120	<3.0	ug/L				
6895436	Total Antimony (Sb)	2020/08/17	100	80 - 120	101	80 - 120	<0.50	ug/L				
6895436	Total Arsenic (As)	2020/08/17	111	80 - 120	105	80 - 120	<0.10	ug/L				
6895436	Total Barium (Ba)	2020/08/17	NC	80 - 120	104	80 - 120	<1.0	ug/L				
6895436	Total Beryllium (Be)	2020/08/17	95	80 - 120	103	80 - 120	<0.10	ug/L				
6895436	Total Bismuth (Bi)	2020/08/17	87	80 - 120	96	80 - 120	<1.0	ug/L				
6895436	Total Boron (B)	2020/08/17	94	80 - 120	101	80 - 120	<50	ug/L				
6895436	Total Cadmium (Cd)	2020/08/17	97	80 - 120	105	80 - 120	<0.010	ug/L				



BV Labs Job #: COK7149
Report Date: 2020/08/21

QUALITY ASSURANCE REPORT(CONT'D)

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: TG

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6895436	Total Chromium (Cr)	2020/08/17	97	80 - 120	104	80 - 120	<1.0	ug/L				
6895436	Total Cobalt (Co)	2020/08/17	91	80 - 120	102	80 - 120	<0.20	ug/L				
6895436	Total Copper (Cu)	2020/08/17	86	80 - 120	102	80 - 120	<0.50	ug/L				
6895436	Total Iron (Fe)	2020/08/17	101	80 - 120	106	80 - 120	<10	ug/L				
6895436	Total Lead (Pb)	2020/08/17	100	80 - 120	103	80 - 120	<0.20	ug/L				
6895436	Total Lithium (Li)	2020/08/17	NC	80 - 120	101	80 - 120	<2.0	ug/L				
6895436	Total Manganese (Mn)	2020/08/17	94	80 - 120	103	80 - 120	<1.0	ug/L				
6895436	Total Molybdenum (Mo)	2020/08/17	NC	80 - 120	103	80 - 120	<1.0	ug/L				
6895436	Total Nickel (Ni)	2020/08/17	88	80 - 120	103	80 - 120	<1.0	ug/L				
6895436	Total Selenium (Se)	2020/08/17	109	80 - 120	104	80 - 120	<0.10	ug/L				
6895436	Total Silicon (Si)	2020/08/17	105	80 - 120	105	80 - 120	<100	ug/L				
6895436	Total Silver (Ag)	2020/08/17	96	80 - 120	105	80 - 120	<0.020	ug/L				
6895436	Total Strontium (Sr)	2020/08/17	NC	80 - 120	101	80 - 120	<1.0	ug/L				
6895436	Total Thallium (Tl)	2020/08/17	97	80 - 120	99	80 - 120	<0.010	ug/L				
6895436	Total Tin (Sn)	2020/08/17	102	80 - 120	101	80 - 120	<5.0	ug/L				
6895436	Total Titanium (Ti)	2020/08/17	105	80 - 120	103	80 - 120	<5.0	ug/L				
6895436	Total Uranium (U)	2020/08/17	105	80 - 120	103	80 - 120	<0.10	ug/L				
6895436	Total Vanadium (V)	2020/08/17	102	80 - 120	106	80 - 120	<5.0	ug/L				
6895436	Total Zinc (Zn)	2020/08/17	85	80 - 120	103	80 - 120	<5.0	ug/L				
6895436	Total Zirconium (Zr)	2020/08/17	116	80 - 120	101	80 - 120	<0.10	ug/L				
6895439	Dissolved Aluminum (Al)	2020/08/17	100	80 - 120	101	80 - 120	<3.0	ug/L				
6895439	Dissolved Antimony (Sb)	2020/08/17	NC	80 - 120	99	80 - 120	<0.50	ug/L				
6895439	Dissolved Arsenic (As)	2020/08/17	112	80 - 120	100	80 - 120	<0.10	ug/L				
6895439	Dissolved Barium (Ba)	2020/08/17	103	80 - 120	100	80 - 120	<1.0	ug/L				
6895439	Dissolved Beryllium (Be)	2020/08/17	96	80 - 120	99	80 - 120	<0.10	ug/L				
6895439	Dissolved Bismuth (Bi)	2020/08/17	85	80 - 120	91	80 - 120	<1.0	ug/L				
6895439	Dissolved Boron (B)	2020/08/17	NC	80 - 120	97	80 - 120	<50	ug/L				
6895439	Dissolved Cadmium (Cd)	2020/08/17	96	80 - 120	101	80 - 120	<0.010	ug/L				
6895439	Dissolved Chromium (Cr)	2020/08/17	94	80 - 120	99	80 - 120	<1.0	ug/L				
6895439	Dissolved Cobalt (Co)	2020/08/17	90	80 - 120	97	80 - 120	<0.20	ug/L				
6895439	Dissolved Copper (Cu)	2020/08/17	86	80 - 120	97	80 - 120	<0.20	ug/L				
6895439	Dissolved Iron (Fe)	2020/08/17	97	80 - 120	102	80 - 120	<5.0	ug/L				



BV Labs Job #: COK7149
Report Date: 2020/08/21

QUALITY ASSURANCE REPORT(CONT'D)

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: TG

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6895439	Dissolved Lead (Pb)	2020/08/17	96	80 - 120	100	80 - 120	<0.20	ug/L				
6895439	Dissolved Lithium (Li)	2020/08/17	NC	80 - 120	95	80 - 120	<2.0	ug/L				
6895439	Dissolved Manganese (Mn)	2020/08/17	88	80 - 120	98	80 - 120	<1.0	ug/L				
6895439	Dissolved Molybdenum (Mo)	2020/08/17	NC	80 - 120	100	80 - 120	<1.0	ug/L				
6895439	Dissolved Nickel (Ni)	2020/08/17	85	80 - 120	98	80 - 120	<1.0	ug/L				
6895439	Dissolved Selenium (Se)	2020/08/17	111	80 - 120	100	80 - 120	<0.10	ug/L				
6895439	Dissolved Silicon (Si)	2020/08/17	NC	80 - 120	101	80 - 120	<100	ug/L				
6895439	Dissolved Silver (Ag)	2020/08/17	92	80 - 120	100	80 - 120	<0.020	ug/L				
6895439	Dissolved Strontium (Sr)	2020/08/17	NC	80 - 120	96	80 - 120	<1.0	ug/L				
6895439	Dissolved Thallium (Tl)	2020/08/17	98	80 - 120	95	80 - 120	<0.010	ug/L				
6895439	Dissolved Tin (Sn)	2020/08/17	96	80 - 120	98	80 - 120	<5.0	ug/L				
6895439	Dissolved Titanium (Ti)	2020/08/17	113	80 - 120	98	80 - 120	<5.0	ug/L				
6895439	Dissolved Uranium (U)	2020/08/17	103	80 - 120	101	80 - 120	<0.10	ug/L				
6895439	Dissolved Vanadium (V)	2020/08/17	106	80 - 120	101	80 - 120	<5.0	ug/L				
6895439	Dissolved Zinc (Zn)	2020/08/17	92	80 - 120	100	80 - 120	<5.0	ug/L				
6895439	Dissolved Zirconium (Zr)	2020/08/17	100	80 - 120	96	80 - 120	<0.10	ug/L				
6895856	Dissolved Chloride (Cl-)	2020/08/17	109	80 - 120	101	80 - 120	<1.0	mg/L				
6895856	Dissolved Sulphate (SO4)	2020/08/17	NC	80 - 120	106	80 - 120	<1.0	mg/L				
6895857	Conductivity	2020/08/17			100	90 - 110	<2.0	uS/cm				
6895858	Dissolved Calcium (Ca)	2020/08/18	99	80 - 120	99	80 - 120	<0.30	mg/L				
6895858	Dissolved Magnesium (Mg)	2020/08/18	99	80 - 120	99	80 - 120	<0.20	mg/L				
6895858	Dissolved Potassium (K)	2020/08/18	100	80 - 120	102	80 - 120	<0.30	mg/L				
6895858	Dissolved Sodium (Na)	2020/08/18	97	80 - 120	99	80 - 120	<0.50	mg/L				
6895859	pH	2020/08/17			101	97 - 103						
6895862	Reactive Silica (SiO2)	2020/08/17	112	80 - 120	107	80 - 120	<0.050	mg/L				



BUREAU
VERITAS

BV Labs Job #: C0K7149

Report Date: 2020/08/21

QUALITY ASSURANCE REPORT(CONT'D)

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: TG

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6895863	Free Cyanide (CN)	2020/08/17	109	80 - 120	102	80 - 120	<1.0	ug/L				

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.

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 $\leq 2 \times \text{RDL}$).



BUREAU
VERITAS

BV Labs Job #: COK7149
Report Date: 2020/08/21

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: TG

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Brad Newman, Scientific Service Specialist

David Huang, BBY Scientific Specialist

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



Kurt Headrick, Ph.D., C. Chem., Laboratory Manager

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 #: COK7149
Report Date: 2020/08/21

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: TG

Exceedance Summary Table – Metal Mining Effluent Reg
Result Exceedances

Sample ID	BV Labs ID	Parameter	Criteria	Result	DL	UNITS
No Exceedances						
The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.						



Your P.O. #: OL-891917
 Site#: 62 48' 01.99" 92 06' 00.05"
 Site Location: MELIADINE
 Your C.O.C. #: na

Attention: Reporting

Agnico-Eagle
 Meliadine
 Meliadine Mine
 Rankin Inlet, NU
 CANADA X0C 0G0

Report Date: 2020/09/02
 Report #: R6316390
 Version: 5 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: COL2878

Received: 2020/08/19, 15:45

Sample Matrix: Water
 # Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity (1)	1	N/A	2020/08/21	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide (1)	1	N/A	2020/08/27	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry (1)	1	N/A	2020/08/21	CAM SOP-00463	SM 23 4500-Cl E m
Conductivity (1)	1	N/A	2020/08/21	CAM SOP-00414	SM 23 2510 m
Free (WAD) Cyanide (1)	1	N/A	2020/08/20	CAM SOP-00457	OMOE E3015 m
Total Cyanide (1)	1	2020/08/20	2020/08/20	CAM SOP-00457	OMOE E3015 5 m
Dissolved Organic Carbon (DOC) (1, 5)	1	N/A	2020/08/20	CAM SOP-00446	SM 23 5310 B m
Dissolved Oxygen (1)	1	2020/08/20	2020/08/20	CAM SOP-00427	SM 23 4500 O G m
Fluoride (1)	1	2020/08/20	2020/08/21	CAM SOP-00449	SM 23 4500-F C m
Dissolved Mercury (low level) (1)	1	2020/08/21	2020/08/21	CAM SOP-00453	EPA 7470 m
Mercury (low level) (1)	1	2020/08/21	2020/08/21	CAM SOP-00453	EPA 7470 m
Chloride & Sulphate by Auto Colorimetry (2)	1	N/A	2020/08/24	AB SOP-00020 / AB SOP-00018	SM23 4500-CL/SO4-E m
Cyanide (Free) (2)	1	2020/08/25	2020/08/25	CAL SOP-00266	EPA 9016d R0 m
Conductivity @25C (2)	1	N/A	2020/08/23	AB SOP-00005	SM 23 2510 B m
Hardness Total (calculated as CaCO3) (3, 6)	1	N/A	2020/08/25	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3) (3)	1	N/A	2020/08/25	BBY WI-00033	Auto Calc
Elements by ICP-Dissolved-Lab Filtered (2)	1	N/A	2020/08/25	AB SOP-00042	EPA 6010d R5 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.) (3)	1	N/A	2020/08/25	BBY7SOP-00002	EPA 6020B R2 m
Elements by CRC ICPMS (dissolved) (3)	1	N/A	2020/08/24	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total) (3)	1	2020/08/20	2020/08/25	BBY7SOP-00002	EPA 6020B R2 m
Elements by CRC ICPMS (total) (3)	1	2020/08/24	2020/08/25	BBY7SOP-00003/02	EPA 6020B R2 m
pH @25°C (2, 7)	1	N/A	2020/08/23	AB SOP-00005	SM 23 4500-H+B m
Sodium Adsorption Ratio (2)	1	N/A	2020/08/25		Auto Calc
Silica (Reactive) (2)	1	N/A	2020/08/25	AB SOP-00011	EPA370.1 R1978 m
Total Dissolved Solids (Calc. from EC) (2)	1	N/A	2020/08/24		Auto Calc
Total Ammonia-N (1)	1	N/A	2020/08/21	CAM SOP-00441	USGS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1, 8)	1	N/A	2020/08/21	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH (1)	1	2020/08/20	2020/08/21	CAM SOP-00413	SM 4500H+ B m
Orthophosphate (1)	1	N/A	2020/08/21	CAM SOP-00461	EPA 365.1 m



Your P.O. #: OL-891917
 Site#: 62 48' 01.99" 92 06' 00.05"
 Site Location: MELIADINE
 Your C.O.C. #: na

Attention: Reporting

Agnico-Eagle
 Meliadine
 Meliadine Mine
 Rankin Inlet, NU
 CANADA X0C 0G0

Report Date: 2020/09/02
 Report #: R6316390
 Version: 5 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: COL2878

Received: 2020/08/19, 15:45

Sample Matrix: Water
 # Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Radium-226 Low Level (4, 9)	1	N/A	2020/09/01	BQL SOP-00006 BQL SOP-00017 BQL SOP-00032	Alpha Spectrometry
Sulphate by Automated Colourimetry (1)	1	N/A	2020/08/21	CAM SOP-00464	EPA 375.4 m
Calculated Total Dissolved Solids (1)	1	N/A	2020/08/27		Auto Calc
Total Dissolved Solids (1)	1	2020/08/20	2020/08/21	CAM SOP-00428	SM 23 2540C m
Total Kjeldahl Nitrogen in Water (1)	1	2020/08/21	2020/08/21	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (1, 10)	1	N/A	2020/08/21	CAM SOP-00446	SM 23 5310B m
Total Phosphorus (Colourimetric) (1)	1	2020/08/21	2020/08/21	CAM SOP-00407	SM 23 4500 P B H m
Low Level Total Suspended Solids (1)	1	2020/08/20	2020/08/21	CAM SOP-00428	SM 23 2540D m
Turbidity (1)	1	N/A	2020/08/21	CAM SOP-00417	SM 23 2130 B m
Low Level Volatile Suspended Solids (1)	1	2020/08/20	2020/08/21	CAM SOP-00428	SM 23 2540

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs 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 BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs 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.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs 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 BV Labs, unless otherwise agreed in writing. BV Labs 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 BV Labs, results relate to the supplied samples tested.

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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.



Your P.O. #: OL-891917
Site#: 62 48' 01.99" 92 06' 00.05"
Site Location: MELIADINE
Your C.O.C. #: na

Attention: Reporting

Agnico-Eagle
Meliadine
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2020/09/02
Report #: R6316390
Version: 5 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: COL2878

Received: 2020/08/19, 15:45

- (1) This test was performed by Bureau Veritas Laboratories Mississauga
- (2) This test was performed by BVLabs Calgary via Mississauga
- (3) This test was performed by BVLabs Burnaby via Mississauga
- (4) This test was performed by Bureau Veritas Laboratories Kitimat
- (5) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
- (6) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (7) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas Laboratories endeavours to analyze samples as soon as possible after receipt.
- (8) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (9) Radium-226 results have not been corrected for blanks.
- (10) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

Encryption Key

Katherine Szozda

Katherine Szozda
Project Manager
02 Sep 2020 15:26:43

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

Katherine Szozda, Project Manager
Email: Katherine.Szozda@bvlabs.com
Phone# (613) 274-0573

=====

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 #: COL2878

Report Date: 2020/09/02

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: GL

SALINITY IN WATER (WATER)

BV Labs ID		NKM978		
Sampling Date		2020/08/16 10:30		
COC Number		na		
	UNITS	MEL-26	RDL	QC Batch
Calculated Parameters				
Sodium Adsorption Ratio	N/A	28	0.10	6913133
Total dissolved solids (calc., EC)	mg/L	31000	10	6913134
ELEMENTS				
Dissolved Calcium (Ca)	mg/L	1200	6.0	6913131
Dissolved Magnesium (Mg)	mg/L	670	4.0	6913131
Dissolved Potassium (K)	mg/L	210	6.0	6913131
Dissolved Sodium (Na)	mg/L	5000	10	6913131
Inorganics				
Dissolved Chloride (Cl-)	mg/L	11000 (1)	100	6913128
Conductivity	uS/cm	31000	2.0	6913129
pH	pH	7.44	N/A	6913132
Dissolved Sulphate (SO4)	mg/L	1200 (1)	10	6913128
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable (1) Detection limits raised due to dilution to bring analyte within the calibrated range.				



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BV Labs Job #: COL2878

Report Date: 2020/09/02

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: GL

DISS. ICPMS METALS FOR FEDERAL INT. GWQG (WATER)

BV Labs ID		NKM978		
Sampling Date		2020/08/16 10:30		
COC Number		na		
	UNITS	MEL-26	RDL	QC Batch
Calculated Parameters				
Dissolved Hardness (CaCO ₃)	mg/L	5950	0.50	6908298
Metals				
Dissolved Aluminum (Al)	ug/L	111	60	6908300
Dissolved Antimony (Sb)	ug/L	<10	10	6908300
Dissolved Arsenic (As)	ug/L	14.7	2.0	6908300
Dissolved Barium (Ba)	ug/L	261	20	6908300
Dissolved Beryllium (Be)	ug/L	<2.0	2.0	6908300
Dissolved Bismuth (Bi)	ug/L	<20	20	6908300
Dissolved Boron (B)	ug/L	<1000	1000	6908300
Dissolved Cadmium (Cd)	ug/L	0.22	0.20	6908300
Dissolved Chromium (Cr)	ug/L	<20	20	6908300
Dissolved Cobalt (Co)	ug/L	9.5	4.0	6908300
Dissolved Copper (Cu)	ug/L	5.7	4.0	6908300
Dissolved Iron (Fe)	ug/L	<100	100	6908300
Dissolved Lead (Pb)	ug/L	5.0	4.0	6908300
Dissolved Lithium (Li)	ug/L	676	40	6908300
Dissolved Manganese (Mn)	ug/L	378	20	6908300
Dissolved Molybdenum (Mo)	ug/L	<20	20	6908300
Dissolved Nickel (Ni)	ug/L	49	20	6908300
Dissolved Selenium (Se)	ug/L	<2.0	2.0	6908300
Dissolved Silicon (Si)	ug/L	2110	2000	6908300
Dissolved Silver (Ag)	ug/L	<0.40	0.40	6908300
Dissolved Strontium (Sr)	ug/L	31300	20	6908300
Dissolved Thallium (Tl)	ug/L	<0.20	0.20	6908300
Dissolved Tin (Sn)	ug/L	<100	100	6908300
Dissolved Titanium (Ti)	ug/L	<100	100	6908300
Dissolved Uranium (U)	ug/L	6.1	2.0	6908300
Dissolved Vanadium (V)	ug/L	<100	100	6908300
Dissolved Zinc (Zn)	ug/L	<100	100	6908300
Dissolved Zirconium (Zr)	ug/L	<2.0	2.0	6908300
Dissolved Calcium (Ca)	mg/L	1230	1.0	6908299
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BV Labs Job #: COL2878
Report Date: 2020/09/02

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: GL

DISS. ICPMS METALS FOR FEDERAL INT. GWQG (WATER)

BV Labs ID		NKM978		
Sampling Date		2020/08/16 10:30		
COC Number		na		
	UNITS	MEL-26	RDL	QC Batch
Dissolved Magnesium (Mg)	mg/L	700	1.0	6908299
Dissolved Potassium (K)	mg/L	218	1.0	6908299
Dissolved Sodium (Na)	mg/L	4760	1.0	6908299
Dissolved Sulphur (S)	mg/L	489	60	6908299
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BUREAU
VERITAS

BV Labs Job #: COL2878

Report Date: 2020/09/02

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: GL

TOTAL ICPMS METALS FOR CCME CEQG FOR SW (WATER)

BV Labs ID		NKM978		
Sampling Date		2020/08/16 10:30		
COC Number		na		
	UNITS	MEL-26	RDL	QC Batch
Metals				
Total Aluminum (Al)	ug/L	502	30	6908297
Total Antimony (Sb)	ug/L	<5.0	5.0	6908297
Total Arsenic (As)	ug/L	18.4	1.0	6908297
Total Barium (Ba)	ug/L	260	10	6908297
Total Beryllium (Be)	ug/L	<1.0	1.0	6908297
Total Bismuth (Bi)	ug/L	<10	10	6908297
Total Boron (B)	ug/L	888	500	6908297
Total Cadmium (Cd)	ug/L	0.21	0.10	6908297
Total Chromium (Cr)	ug/L	<10	10	6908297
Total Cobalt (Co)	ug/L	9.8	2.0	6908297
Total Copper (Cu)	ug/L	6.3	5.0	6908297
Total Iron (Fe)	ug/L	<100	100	6908297
Total Lead (Pb)	ug/L	5.1	2.0	6908297
Total Lithium (Li)	ug/L	658	20	6908297
Total Manganese (Mn)	ug/L	377	10	6908297
Total Molybdenum (Mo)	ug/L	22	10	6908297
Total Nickel (Ni)	ug/L	52	10	6908297
Total Selenium (Se)	ug/L	1.3	1.0	6908297
Total Silicon (Si)	ug/L	2160	1000	6908297
Total Silver (Ag)	ug/L	<0.20	0.20	6908297
Total Strontium (Sr)	ug/L	31600	10	6908297
Total Thallium (Tl)	ug/L	0.19	0.10	6908297
Total Tin (Sn)	ug/L	<50	50	6908297
Total Titanium (Ti)	ug/L	<50	50	6908297
Total Uranium (U)	ug/L	6.9	1.0	6908297
Total Vanadium (V)	ug/L	<50	50	6908297
Total Zinc (Zn)	ug/L	<50	50	6908297
Total Zirconium (Zr)	ug/L	<1.0	1.0	6908297
Total Calcium (Ca)	ug/L	1240000	500	6908296
Total Magnesium (Mg)	ug/L	680000	500	6908296
Total Potassium (K)	ug/L	215000	500	6908296
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



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TOTAL ICPMS METALS FOR CCME CEQG FOR SW (WATER)

BV Labs ID		NKM978		
Sampling Date		2020/08/16 10:30		
COC Number		na		
	UNITS	MEL-26	RDL	QC Batch
Total Sodium (Na)	ug/L	4700000	500	6908296
Total Sulphur (S)	ug/L	477000	30000	6908296
Calculated Parameters				
Total Hardness (CaCO3)	ug/L	5890000	500	6908295
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BV Labs Job #: COL2878
Report Date: 2020/09/02

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: GL

RESULTS OF ANALYSES OF WATER

BV Labs ID		NKM978			NKM978		
Sampling Date		2020/08/16 10:30			2020/08/16 10:30		
COC Number		na			na		
	UNITS	MEL-26	RDL	QC Batch	MEL-26 Lab-Dup	RDL	QC Batch
Calculated Parameters							
Bicarb. Alkalinity (calc. as CaCO ₃)	mg/L	67	1.0	6900387			
Calculated TDS	mg/L	18000	1.0	6900580			
Carb. Alkalinity (calc. as CaCO ₃)	mg/L	<1.0	1.0	6900387			
Inorganics							
Total Ammonia-N	mg/L	35	0.25	6902381			
Conductivity	umho/cm	32000	1.0	6901008	32000	1.0	6901008
Free Cyanide (CN)	ug/L	19	1.0	6910840			
Total Dissolved Solids	mg/L	21100	20	6901635			
Fluoride (F ⁻)	mg/L	<0.10	0.10	6901452	<0.10	0.10	6901452
Total Kjeldahl Nitrogen (TKN)	mg/L	49	5.0	6902394			
Dissolved Organic Carbon	mg/L	22	0.40	6898439			
Total Organic Carbon (TOC)	mg/L	23	0.40	6902357			
Orthophosphate (P)	mg/L	<0.010	0.010	6898675	<0.010	0.010	6898675
Dissolved Oxygen	mg/L	10.1		6901307	10.1		6901307
pH	pH	7.29		6901010	7.30		6901010
Total Phosphorus	mg/L	0.068	0.020	6902294			
Reactive Silica (SiO ₂)	mg/L	4.4 (1)	0.50	6910839	3.7	0.50	6910839
Total Suspended Solids	mg/L	18	1	6900136			
Dissolved Sulphate (SO ₄)	mg/L	1200	10	6898673	1200	10	6898673
Total Cyanide (CN)	mg/L	0.063	0.0050	6900740			
Turbidity	NTU	0.8	0.1	6902507			
Volatile Suspended Solids	mg/L	11	1	6900138			
WAD Cyanide (Free)	mg/L	0.017	0.0010	6899941			
Alkalinity (Total as CaCO ₃)	mg/L	67	1.0	6901007	68	1.0	6901007
Dissolved Chloride (Cl ⁻)	mg/L	9500	100	6898672	9900	100	6898672
Nitrite (N)	mg/L	1.16	0.010	6901420	1.16	0.010	6901420
Nitrate (N)	mg/L	52.4	0.50	6901420	52.8	0.50	6901420
Nitrate + Nitrite (N)	mg/L	53.5	0.50	6901420	53.9	0.50	6901420
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate (1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.							



BUREAU
VERITAS

BV Labs Job #: COL2878
Report Date: 2020/09/02

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: GL

RESULTS OF ANALYSES OF WATER

BV Labs ID		NKM978			NKM978		
Sampling Date		2020/08/16 10:30			2020/08/16 10:30		
COC Number		na			na		
	UNITS	MEL-26	RDL	QC Batch	MEL-26 Lab-Dup	RDL	QC Batch
RADIONUCLIDE							
Radium-226	Bq/L	0.18	0.0050	6907625			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							



BUREAU
VERITAS

BV Labs Job #: COL2878
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Agnico-Eagle
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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		NKM978		
Sampling Date		2020/08/16 10:30		
COC Number		na		
	UNITS	MEL-26	RDL	QC Batch
Metals				
Mercury (Hg)	mg/L	<0.00001	0.00001	6902496
Dissolved Mercury (Hg)	mg/L	<0.00001	0.00001	6902491
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BV Labs Job #: COL2878
Report Date: 2020/09/02

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: GL

TEST SUMMARY

BV Labs ID: NKM978
Sample ID: MEL-26
Matrix: Water

Collected: 2020/08/16
Shipped:
Received: 2020/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	6901007	N/A	2020/08/21	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	6900387	N/A	2020/08/27	Automated Statchk
Chloride by Automated Colourimetry	KONE	6898672	N/A	2020/08/21	Deonarine Ramnarine
Conductivity	AT	6901008	N/A	2020/08/21	Surinder Rai
Free (WAD) Cyanide	SKAL/CN	6899941	N/A	2020/08/20	Louise Harding
Total Cyanide	SKAL/CN	6900740	2020/08/20	2020/08/20	Louise Harding
Dissolved Organic Carbon (DOC)	TOCV/NDIR	6898439	N/A	2020/08/20	Nimarta Singh
Dissolved Oxygen	DO	6901307	2020/08/20	2020/08/20	Navjot Kaur Gill
Fluoride	ISE	6901452	2020/08/20	2020/08/21	Surinder Rai
Dissolved Mercury (low level)	CV/AA	6902491	2020/08/21	2020/08/21	Meghaben Patel
Mercury (low level)	CV/AA	6902496	2020/08/21	2020/08/21	Meghaben Patel
Chloride & Sulphate by Auto Colorimetry	KONE	6913128	N/A	2020/08/24	Serena Tian
Cyanide (Free)	SPEC	6910840	2020/08/25	2020/08/25	Taylor Mullings
Conductivity @25C	COND	6913129	N/A	2020/08/23	Tracy (Jing) Ling
Hardness Total (calculated as CaCO3)	CALC	6908295	N/A	2020/08/25	Automated Statchk
Hardness (calculated as CaCO3)	CALC	6908298	N/A	2020/08/25	Automated Statchk
Elements by ICP-Dissolved-Lab Filtered	ICP	6913131	N/A	2020/08/25	Mary Anne Dela Cruz
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	ICP	6908299	N/A	2020/08/25	Automated Statchk
Elements by CRC ICPMS (dissolved)	ICP/MS	6908300	N/A	2020/08/24	Andrew An
Na, K, Ca, Mg, S by CRC ICPMS (total)	ICP	6908296	2020/08/25	2020/08/25	Automated Statchk
Elements by CRC ICPMS (total)	ICP/MS	6908297	2020/08/24	2020/08/25	Valentina Balada
pH @25°C	AT/PH	6913132	N/A	2020/08/23	Tracy (Jing) Ling
Sodium Adsorption Ratio	CALC	6913133	N/A	2020/08/25	Automated Statchk
Silica (Reactive)	KONE	6910839	N/A	2020/08/25	Serena Tian
Total Dissolved Solids (Calc. from EC)	CALC	6913134	N/A	2020/08/24	Automated Statchk
Total Ammonia-N	LACH/NH4	6902381	N/A	2020/08/21	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	6901420	N/A	2020/08/21	Chandra Nandlal
pH	AT	6901010	2020/08/20	2020/08/21	Surinder Rai
Orthophosphate	KONE	6898675	N/A	2020/08/21	Kazzandra Adeva
Radium-226 Low Level	AS	6907625	N/A	2020/09/01	Blake Barber
Sulphate by Automated Colourimetry	KONE	6898673	N/A	2020/08/21	Deonarine Ramnarine
Calculated Total Dissolved Solids	CALC	6900580	N/A	2020/08/27	Automated Statchk
Total Dissolved Solids	BAL	6901635	2020/08/20	2020/08/21	Shivani Desai
Total Kjeldahl Nitrogen in Water	SKAL	6902394	2020/08/21	2020/08/21	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	6902357	N/A	2020/08/21	Nimarta Singh
Total Phosphorus (Colourimetric)	LACH/P	6902294	2020/08/21	2020/08/21	Shivani Shivani
Low Level Total Suspended Solids	BAL	6900136	2020/08/20	2020/08/21	Massarat Jan
Turbidity	AT	6902507	N/A	2020/08/21	Neil Dassanayake
Low Level Volatile Suspended Solids	BAL	6900138	2020/08/20	2020/08/21	Massarat Jan



BV Labs Job #: COL2878
Report Date: 2020/09/02

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: GL

TEST SUMMARY

BV Labs ID: NKM978 Dup
Sample ID: MEL-26
Matrix: Water

Collected: 2020/08/16
Shipped:
Received: 2020/08/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	6901007	N/A	2020/08/21	Surinder Rai
Chloride by Automated Colourimetry	KONE	6898672	N/A	2020/08/21	Deonarine Ramnarine
Conductivity	AT	6901008	N/A	2020/08/21	Surinder Rai
Dissolved Oxygen	DO	6901307	2020/08/20	2020/08/20	Navjot Kaur Gill
Fluoride	ISE	6901452	2020/08/20	2020/08/21	Surinder Rai
Silica (Reactive)	KONE	6910839	N/A	2020/08/25	Serena Tian
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	6901420	N/A	2020/08/21	Chandra Nandlal
pH	AT	6901010	2020/08/20	2020/08/21	Surinder Rai
Orthophosphate	KONE	6898675	N/A	2020/08/21	Kazzandra Adeva
Sulphate by Automated Colourimetry	KONE	6898673	N/A	2020/08/21	Deonarine Ramnarine



GENERAL COMMENTS

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

Package 1	12.0°C
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Sample NKM978 [MEL-26] : Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results

Sample was not submitted in an appropriate container for free cyanide analysis. Results may have a high bias due to decomposition of hexacyanoferrate and some other metal-cyanide complexes to free cyanide

Sample pH <12, preservation incomplete. Due to volatility of analyte, a low bias in the results is likely.

SALINITY IN WATER (WATER)

Sample NKM978 [MEL-26] Elements by ICP-Dissolved-Lab Filtered: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

DISS. ICPMS METALS FOR FEDERAL INT. GWQG (WATER)

Sample NKM978 [MEL-26] Elements by CRC ICPMS (dissolved): RDL raised due to concentration over linear range, sample dilution required.

TOTAL ICPMS METALS FOR CCME CEQG FOR SW (WATER)

Sample NKM978 [MEL-26] Elements by CRC ICPMS (total): RDL raised due to concentration over linear range, sample dilution required.

Results relate only to the items tested.



BV Labs Job #: COL2878
Report Date: 2020/09/02

QUALITY ASSURANCE REPORT

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: GL

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6898439	Dissolved Organic Carbon	2020/08/20	97	80 - 120	99	80 - 120	<0.40	mg/L	2.4	20		
6898672	Dissolved Chloride (Cl ⁻)	2020/08/21	NC	80 - 120	103	80 - 120	<1.0	mg/L	3.3	20		
6898673	Dissolved Sulphate (SO ₄)	2020/08/21	NC	75 - 125	104	80 - 120	<1.0	mg/L	0.41	20		
6898675	Orthophosphate (P)	2020/08/21	93	75 - 125	100	80 - 120	<0.010	mg/L	NC	25		
6899941	WAD Cyanide (Free)	2020/08/20	101	80 - 120	101	80 - 120	<0.0010	mg/L	NC	20		
6900136	Total Suspended Solids	2020/08/21					<1	mg/L	18	25	101	85 - 115
6900138	Volatile Suspended Solids	2020/08/21					<1	mg/L	9.5	25		
6900740	Total Cyanide (CN)	2020/08/20	81	80 - 120	97	80 - 120	<0.0050	mg/L	NC	20		
6901007	Alkalinity (Total as CaCO ₃)	2020/08/21			95	85 - 115	<1.0	mg/L	1.2	20		
6901008	Conductivity	2020/08/21			101	85 - 115	<1.0	umho/cm	0	25		
6901010	pH	2020/08/21			102	98 - 103			0.062	N/A		
6901420	Nitrate (N)	2020/08/21	NC	80 - 120	96	80 - 120	<0.10	mg/L	0.75	20		
6901420	Nitrite (N)	2020/08/21	NC	80 - 120	104	80 - 120	<0.010	mg/L	0.30	20		
6901452	Fluoride (F ⁻)	2020/08/21	65 (1)	80 - 120	99	80 - 120	<0.10	mg/L	NC	20		
6901635	Total Dissolved Solids	2020/08/21					<10	mg/L	5.9	25	95	90 - 110
6902294	Total Phosphorus	2020/08/21	96	80 - 120	97	80 - 120	<0.020	mg/L	2.6	20	96	80 - 120
6902357	Total Organic Carbon (TOC)	2020/08/21	98	80 - 120	100	80 - 120	<0.40	mg/L	1.3	20		
6902381	Total Ammonia-N	2020/08/21	99	75 - 125	99	80 - 120	<0.050	mg/L	20	20		
6902394	Total Kjeldahl Nitrogen (TKN)	2020/08/21	97	80 - 120	99	80 - 120	<0.10	mg/L	4.1	20	101	80 - 120
6902491	Dissolved Mercury (Hg)	2020/08/21	103	75 - 125	106	80 - 120	<0.00001	mg/L	NC	20		
6902496	Mercury (Hg)	2020/08/21	97	75 - 125	102	80 - 120	<0.00001	mg/L	NC	20		
6902507	Turbidity	2020/08/21			109	85 - 115	<0.1	NTU	1.7	20		
6907625	Radium-226	2020/09/01			93	85 - 115	<0.0050	Bq/L	NC	N/A		
6908297	Total Aluminium (Al)	2020/08/25	104	80 - 120	105	80 - 120	<3.0	ug/L				
6908297	Total Antimony (Sb)	2020/08/25	102	80 - 120	101	80 - 120	<0.50	ug/L				
6908297	Total Arsenic (As)	2020/08/25	105	80 - 120	103	80 - 120	<0.10	ug/L				
6908297	Total Barium (Ba)	2020/08/25	NC	80 - 120	108	80 - 120	<1.0	ug/L				
6908297	Total Beryllium (Be)	2020/08/25	102	80 - 120	104	80 - 120	<0.10	ug/L				
6908297	Total Bismuth (Bi)	2020/08/25	95	80 - 120	102	80 - 120	<1.0	ug/L				
6908297	Total Boron (B)	2020/08/25	95	80 - 120	98	80 - 120	<50	ug/L				
6908297	Total Cadmium (Cd)	2020/08/25	102	80 - 120	102	80 - 120	<0.010	ug/L				



BV Labs Job #: COL2878
Report Date: 2020/09/02

QUALITY ASSURANCE REPORT(CONT'D)

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: GL

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6908297	Total Chromium (Cr)	2020/08/25	102	80 - 120	106	80 - 120	<1.0	ug/L				
6908297	Total Cobalt (Co)	2020/08/25	100	80 - 120	106	80 - 120	<0.20	ug/L				
6908297	Total Copper (Cu)	2020/08/25	97	80 - 120	104	80 - 120	<0.50	ug/L				
6908297	Total Iron (Fe)	2020/08/25	104	80 - 120	110	80 - 120	<10	ug/L				
6908297	Total Lead (Pb)	2020/08/25	103	80 - 120	106	80 - 120	<0.20	ug/L				
6908297	Total Lithium (Li)	2020/08/25	102	80 - 120	106	80 - 120	<2.0	ug/L				
6908297	Total Manganese (Mn)	2020/08/25	104	80 - 120	107	80 - 120	<1.0	ug/L				
6908297	Total Molybdenum (Mo)	2020/08/25	NC	80 - 120	103	80 - 120	<1.0	ug/L				
6908297	Total Nickel (Ni)	2020/08/25	100	80 - 120	107	80 - 120	<1.0	ug/L				
6908297	Total Selenium (Se)	2020/08/25	105	80 - 120	105	80 - 120	<0.10	ug/L				
6908297	Total Silicon (Si)	2020/08/25	105	80 - 120	107	80 - 120	<100	ug/L				
6908297	Total Silver (Ag)	2020/08/25	101	80 - 120	102	80 - 120	<0.020	ug/L				
6908297	Total Strontium (Sr)	2020/08/25	NC	80 - 120	106	80 - 120	<1.0	ug/L				
6908297	Total Thallium (Tl)	2020/08/25	100	80 - 120	101	80 - 120	<0.010	ug/L				
6908297	Total Tin (Sn)	2020/08/25	102	80 - 120	101	80 - 120	<5.0	ug/L				
6908297	Total Titanium (Ti)	2020/08/25	105	80 - 120	107	80 - 120	<5.0	ug/L				
6908297	Total Uranium (U)	2020/08/25	111	80 - 120	111	80 - 120	<0.10	ug/L				
6908297	Total Vanadium (V)	2020/08/25	104	80 - 120	105	80 - 120	<5.0	ug/L				
6908297	Total Zinc (Zn)	2020/08/25	100	80 - 120	107	80 - 120	<5.0	ug/L				
6908297	Total Zirconium (Zr)	2020/08/25	105	80 - 120	102	80 - 120	<0.10	ug/L				
6908300	Dissolved Aluminum (Al)	2020/08/22	96	80 - 120	101	80 - 120	<3.0	ug/L				
6908300	Dissolved Antimony (Sb)	2020/08/22	98	80 - 120	102	80 - 120	<0.50	ug/L				
6908300	Dissolved Arsenic (As)	2020/08/22	110	80 - 120	104	80 - 120	<0.10	ug/L				
6908300	Dissolved Barium (Ba)	2020/08/22	NC	80 - 120	106	80 - 120	<1.0	ug/L				
6908300	Dissolved Beryllium (Be)	2020/08/22	96	80 - 120	101	80 - 120	<0.10	ug/L				
6908300	Dissolved Bismuth (Bi)	2020/08/22	83	80 - 120	94	80 - 120	<1.0	ug/L				
6908300	Dissolved Boron (B)	2020/08/22	100	80 - 120	104	80 - 120	<50	ug/L				
6908300	Dissolved Cadmium (Cd)	2020/08/22	96	80 - 120	102	80 - 120	<0.010	ug/L				
6908300	Dissolved Chromium (Cr)	2020/08/22	95	80 - 120	102	80 - 120	<1.0	ug/L				
6908300	Dissolved Cobalt (Co)	2020/08/22	90	80 - 120	101	80 - 120	<0.20	ug/L				
6908300	Dissolved Copper (Cu)	2020/08/22	NC	80 - 120	99	80 - 120	<0.20	ug/L				
6908300	Dissolved Iron (Fe)	2020/08/22	94	80 - 120	104	80 - 120	<5.0	ug/L				



BV Labs Job #: COL2878
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QUALITY ASSURANCE REPORT(CONT'D)

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: GL

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6908300	Dissolved Lead (Pb)	2020/08/22	95	80 - 120	100	80 - 120	<0.20	ug/L				
6908300	Dissolved Lithium (Li)	2020/08/22	94	80 - 120	98	80 - 120	<2.0	ug/L				
6908300	Dissolved Manganese (Mn)	2020/08/22	NC	80 - 120	101	80 - 120	<1.0	ug/L				
6908300	Dissolved Molybdenum (Mo)	2020/08/22	109	80 - 120	106	80 - 120	<1.0	ug/L				
6908300	Dissolved Nickel (Ni)	2020/08/22	87	80 - 120	101	80 - 120	<1.0	ug/L				
6908300	Dissolved Selenium (Se)	2020/08/22	113	80 - 120	105	80 - 120	<0.10	ug/L				
6908300	Dissolved Silicon (Si)	2020/08/22	NC	80 - 120	104	80 - 120	<100	ug/L				
6908300	Dissolved Silver (Ag)	2020/08/22	93	80 - 120	100	80 - 120	<0.020	ug/L				
6908300	Dissolved Strontium (Sr)	2020/08/22	NC	80 - 120	107	80 - 120	<1.0	ug/L				
6908300	Dissolved Thallium (Tl)	2020/08/22	98	80 - 120	86	80 - 120	<0.010	ug/L				
6908300	Dissolved Tin (Sn)	2020/08/22	96	80 - 120	102	80 - 120	<5.0	ug/L				
6908300	Dissolved Titanium (Ti)	2020/08/22	102	80 - 120	103	80 - 120	<5.0	ug/L				
6908300	Dissolved Uranium (U)	2020/08/22	101	80 - 120	103	80 - 120	<0.10	ug/L				
6908300	Dissolved Vanadium (V)	2020/08/22	99	80 - 120	103	80 - 120	<5.0	ug/L				
6908300	Dissolved Zinc (Zn)	2020/08/22	84	80 - 120	103	80 - 120	<5.0	ug/L				
6908300	Dissolved Zirconium (Zr)	2020/08/22	109	80 - 120	107	80 - 120	<0.10	ug/L				
6910839	Reactive Silica (SiO2)	2020/08/25	105	80 - 120	108	80 - 120	<0.050	mg/L	17	20		
6910840	Free Cyanide (CN)	2020/08/25	104	80 - 120	106	80 - 120	<1.0	ug/L	NC	20		
6913128	Dissolved Chloride (Cl-)	2020/08/24	106	80 - 120	103	80 - 120	<1.0	mg/L				
6913128	Dissolved Sulphate (SO4)	2020/08/24	NC	80 - 120	107	80 - 120	<1.0	mg/L				
6913129	Conductivity	2020/08/23			101	90 - 110	<2.0	uS/cm				
6913131	Dissolved Calcium (Ca)	2020/08/25	NC	80 - 120	104	80 - 120	<0.30	mg/L				
6913131	Dissolved Magnesium (Mg)	2020/08/25	NC	80 - 120	100	80 - 120	<0.20	mg/L				
6913131	Dissolved Potassium (K)	2020/08/25	107	80 - 120	104	80 - 120	<0.30	mg/L				
6913131	Dissolved Sodium (Na)	2020/08/25	NC	80 - 120	102	80 - 120	<0.50	mg/L				



BUREAU
VERITAS

BV Labs Job #: COL2878

Report Date: 2020/09/02

QUALITY ASSURANCE REPORT(CONT'D)

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: GL

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6913132	pH	2020/08/23			99	97 - 103						

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.

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 $\leq 2 \times \text{RDL}$).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



BUREAU
VERITAS

BV Labs Job #: COL2878
Report Date: 2020/09/02

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: GL

VALIDATION SIGNATURE PAGE

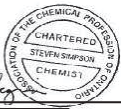
The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Anastassia Hamanov, Scientific Specialist

Brad Newman, Scientific Service Specialist

David Huang, BBY Scientific Specialist

Harry (Peng) Liang, Senior Analyst



Steven Simpson, Lab Director

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 #: COL2878

Report Date: 2020/09/02

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: GL

Exceedance Summary Table – Metal Mining Effluent Reg
Result Exceedances

Sample ID	BV Labs ID	Parameter	Criteria	Result	DL	UNITS
No Exceedances						
The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.						



Your P.O. #: OL-891917
 Site#: 62 48' 01.99" 92 06' 00.05"
 Site Location: MELIADINE
 Your C.O.C. #: na

Attention: Reporting

Agnico-Eagle
 Meliadine
 Meliadine Mine
 Rankin Inlet, NU
 CANADA X0C 0G0

Report Date: 2020/09/04
 Report #: R6319962
 Version: 4 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: COM1484

Received: 2020/08/27, 13:37

Sample Matrix: Water
 # Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity (1)	1	N/A	2020/08/31	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide (1)	1	N/A	2020/09/04	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry (1)	1	N/A	2020/08/31	CAM SOP-00463	SM 23 4500-Cl E m
Conductivity (1)	1	N/A	2020/08/31	CAM SOP-00414	SM 23 2510 m
Free (WAD) Cyanide (1)	1	N/A	2020/08/28	CAM SOP-00457	OMOE E3015 m
Total Cyanide (1)	1	2020/08/28	2020/08/28	CAM SOP-00457	OMOE E3015 5 m
Dissolved Organic Carbon (DOC) (1, 5)	1	N/A	2020/08/28	CAM SOP-00446	SM 23 5310 B m
Dissolved Oxygen (1)	1	2020/08/28	2020/08/28	CAM SOP-00427	SM 23 4500 O G m
Fluoride (1)	1	2020/08/28	2020/08/31	CAM SOP-00449	SM 23 4500-F C m
Dissolved Mercury (low level) (1)	1	2020/08/31	2020/08/31	CAM SOP-00453	EPA 7470 m
Mercury (low level) (1)	1	2020/08/31	2020/08/31	CAM SOP-00453	EPA 7470 m
Chloride & Sulphate by Auto Colorimetry (2)	1	N/A	2020/08/30	AB SOP-00020 / AB SOP-00018	SM23 4500-CL/SO4-E m
Cyanide (Free) (2)	1	2020/09/04	2020/09/04	CAL SOP-00266	EPA 9016d R0 m
Conductivity @25C (2)	1	N/A	2020/08/29	AB SOP-00005	SM 23 2510 B m
Hardness Total (calculated as CaCO3) (3, 6)	1	N/A	2020/09/01	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3) (3)	1	N/A	2020/09/01	BBY WI-00033	Auto Calc
Elements by ICP-Dissolved-Lab Filtered (2)	1	N/A	2020/08/31	AB SOP-00042	EPA 6010d R5 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.) (3)	1	N/A	2020/09/01	BBY7SOP-00002	EPA 6020B R2 m
Elements by CRC ICPMS (dissolved) (3)	1	N/A	2020/08/31	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total) (3)	1	2020/08/28	2020/09/01	BBY7SOP-00002	EPA 6020B R2 m
Elements by CRC ICPMS (total) (3)	1	2020/08/31	2020/09/01	BBY7SOP-00003/02	EPA 6020B R2 m
pH @25°C (2, 7)	1	N/A	2020/08/29	AB SOP-00005	SM 23 4500-H+B m
Sodium Adsorption Ratio (2)	1	N/A	2020/08/31		Auto Calc
Silica (Reactive) (2)	1	N/A	2020/09/01	AB SOP-00011	EPA370.1 R1978 m
Total Dissolved Solids (Calc. from EC) (2)	1	N/A	2020/08/30		Auto Calc
Total Ammonia-N (1)	1	N/A	2020/08/31	CAM SOP-00441	USGS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1, 8)	1	N/A	2020/08/31	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH (1)	1	2020/08/28	2020/08/31	CAM SOP-00413	SM 4500H+ B m
Orthophosphate (1)	1	N/A	2020/08/31	CAM SOP-00461	EPA 365.1 m



Your P.O. #: OL-891917
 Site#: 62 48' 01.99" 92 06' 00.05"
 Site Location: MELIADINE
 Your C.O.C. #: na

Attention: Reporting

Agnico-Eagle
 Meliadine
 Meliadine Mine
 Rankin Inlet, NU
 CANADA X0C 0G0

Report Date: 2020/09/04
 Report #: R6319962
 Version: 4 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: COM1484

Received: 2020/08/27, 13:37

Sample Matrix: Water
 # Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Radium-226 Low Level (4, 9)	1	N/A	2020/09/02	BQL SOP-00006 BQL SOP-00017 BQL SOP-00032	Alpha Spectrometry
Sulphate by Automated Colourimetry (1)	1	N/A	2020/08/31	CAM SOP-00464	EPA 375.4 m
Calculated Total Dissolved Solids (1)	1	N/A	2020/09/04		Auto Calc
Total Dissolved Solids (1)	1	2020/09/01	2020/09/02	CAM SOP-00428	SM 23 2540C m
Total Kjeldahl Nitrogen in Water (1)	1	2020/08/28	2020/08/31	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (1, 10)	1	N/A	2020/08/28	CAM SOP-00446	SM 23 5310B m
Total Phosphorus (Colourimetric) (1)	1	2020/08/28	2020/08/31	CAM SOP-00407	SM 23 4500 P B H m
Low Level Total Suspended Solids (1)	1	2020/08/28	2020/08/29	CAM SOP-00428	SM 23 2540D m
Turbidity (1)	1	N/A	2020/08/31	CAM SOP-00417	SM 23 2130 B m
Low Level Volatile Suspended Solids (1)	1	2020/08/28	2020/08/29	CAM SOP-00428	SM 23 2540

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs 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 BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs 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.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs 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 BV Labs, unless otherwise agreed in writing. BV Labs 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 BV Labs, results relate to the supplied samples tested.

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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.



Your P.O. #: OL-891917
Site#: 62 48' 01.99" 92 06' 00.05"
Site Location: MELIADINE
Your C.O.C. #: na

Attention: Reporting

Agnico-Eagle
Meliadine
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2020/09/04
Report #: R6319962
Version: 4 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: COM1484

Received: 2020/08/27, 13:37

- (1) This test was performed by Bureau Veritas Laboratories Mississauga
- (2) This test was performed by BVLabs Calgary via Mississauga
- (3) This test was performed by BVLabs Burnaby via Mississauga
- (4) This test was performed by Bureau Veritas Laboratories Kitimat
- (5) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
- (6) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (7) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas Laboratories endeavours to analyze samples as soon as possible after receipt.
- (8) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (9) Radium-226 results have not been corrected for blanks.
- (10) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

Encryption Key

Julie Clement
Technical Account Manager
04 Sep 2020 17:38:45

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

Katherine Szozda, Project Manager
Email: Katherine.Szozda@bvlabs.com
Phone# (613) 274-0573

=====

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BUREAU
VERITAS

BV Labs Job #: COM1484

Report Date: 2020/09/04

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: RS

SALINITY IN WATER (WATER)

BV Labs ID		NMH708			NMH708		
Sampling Date		2020/08/23 11:20			2020/08/23 11:20		
COC Number		na			na		
	UNITS	MEL-26	RDL	QC Batch	MEL-26 Lab-Dup	RDL	QC Batch
Calculated Parameters							
Sodium Adsorption Ratio	N/A	27	0.10	6929204			
Total dissolved solids (calc., EC)	mg/L	28000	10	6929205			
ELEMENTS							
Dissolved Calcium (Ca)	mg/L	1200 (1)	6.0	6929252	1200	6.0	6929252
Dissolved Magnesium (Mg)	mg/L	660 (1)	4.0	6929252	660	4.0	6929252
Dissolved Potassium (K)	mg/L	190	0.30	6929252	190	0.30	6929252
Dissolved Sodium (Na)	mg/L	4600 (1)	10	6929252	4500	10	6929252
Inorganics							
Dissolved Chloride (Cl-)	mg/L	9400 (1)	100	6918189			
Conductivity	uS/cm	28000	2.0	6929251			
pH	pH	7.68	N/A	6929253			
Dissolved Sulphate (SO4)	mg/L	1100 (1)	10	6918189			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate N/A = Not Applicable (1) Detection limits raised due to dilution to bring analyte within the calibrated range.							



BUREAU
VERITAS

BV Labs Job #: COM1484

Report Date: 2020/09/04

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: RS

DISS. ICPMS METALS FOR FEDERAL INT. GWQG (WATER)

BV Labs ID		NMH708		
Sampling Date		2020/08/23 11:20		
COC Number		na		
	UNITS	MEL-26	RDL	QC Batch
Calculated Parameters				
Dissolved Hardness (CaCO3)	mg/L	4800	0.50	6921781
Metals				
Dissolved Aluminum (Al)	ug/L	163	30	6921783
Dissolved Antimony (Sb)	ug/L	<5.0	5.0	6921783
Dissolved Arsenic (As)	ug/L	11.6	1.0	6921783
Dissolved Barium (Ba)	ug/L	231	10	6921783
Dissolved Beryllium (Be)	ug/L	<1.0	1.0	6921783
Dissolved Bismuth (Bi)	ug/L	<10	10	6921783
Dissolved Boron (B)	ug/L	773	500	6921783
Dissolved Cadmium (Cd)	ug/L	0.15	0.10	6921783
Dissolved Chromium (Cr)	ug/L	<10	10	6921783
Dissolved Cobalt (Co)	ug/L	8.4	2.0	6921783
Dissolved Copper (Cu)	ug/L	4.7	2.0	6921783
Dissolved Iron (Fe)	ug/L	<50	50	6921783
Dissolved Lead (Pb)	ug/L	4.0	2.0	6921783
Dissolved Lithium (Li)	ug/L	521	20	6921783
Dissolved Manganese (Mn)	ug/L	335	10	6921783
Dissolved Molybdenum (Mo)	ug/L	10	10	6921783
Dissolved Nickel (Ni)	ug/L	46	10	6921783
Dissolved Selenium (Se)	ug/L	1.1	1.0	6921783
Dissolved Silicon (Si)	ug/L	1520	1000	6921783
Dissolved Silver (Ag)	ug/L	<0.20	0.20	6921783
Dissolved Strontium (Sr)	ug/L	26200	10	6921783
Dissolved Thallium (Tl)	ug/L	0.17	0.10	6921783
Dissolved Tin (Sn)	ug/L	<50	50	6921783
Dissolved Titanium (Ti)	ug/L	<50	50	6921783
Dissolved Uranium (U)	ug/L	5.0	1.0	6921783
Dissolved Vanadium (V)	ug/L	<50	50	6921783
Dissolved Zinc (Zn)	ug/L	<50	50	6921783
Dissolved Zirconium (Zr)	ug/L	<1.0	1.0	6921783
Dissolved Calcium (Ca)	mg/L	1050	0.50	6921782
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BV Labs Job #: COM1484
Report Date: 2020/09/04

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

DISS. ICPMS METALS FOR FEDERAL INT. GWQG (WATER)

BV Labs ID		NMH708		
Sampling Date		2020/08/23 11:20		
COC Number		na		
	UNITS	MEL-26	RDL	QC Batch
Dissolved Magnesium (Mg)	mg/L	526	0.50	6921782
Dissolved Potassium (K)	mg/L	172	0.50	6921782
Dissolved Sodium (Na)	mg/L	3760	0.50	6921782
Dissolved Sulphur (S)	mg/L	350	30	6921782
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BUREAU
VERITAS

BV Labs Job #: COM1484

Report Date: 2020/09/04

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: RS

TOTAL ICPMS METALS FOR CCME CEQG FOR SW (WATER)

BV Labs ID		NMH708		
Sampling Date		2020/08/23 11:20		
COC Number		na		
	UNITS	MEL-26	RDL	QC Batch
Metals				
Total Aluminum (Al)	ug/L	345	30	6921780
Total Antimony (Sb)	ug/L	<5.0	5.0	6921780
Total Arsenic (As)	ug/L	13.4	1.0	6921780
Total Barium (Ba)	ug/L	238	10	6921780
Total Beryllium (Be)	ug/L	<1.0	1.0	6921780
Total Bismuth (Bi)	ug/L	<10	10	6921780
Total Boron (B)	ug/L	824	500	6921780
Total Cadmium (Cd)	ug/L	0.18	0.10	6921780
Total Chromium (Cr)	ug/L	<10	10	6921780
Total Cobalt (Co)	ug/L	8.8	2.0	6921780
Total Copper (Cu)	ug/L	5.5	5.0	6921780
Total Iron (Fe)	ug/L	<100	100	6921780
Total Lead (Pb)	ug/L	4.3	2.0	6921780
Total Lithium (Li)	ug/L	574	20	6921780
Total Manganese (Mn)	ug/L	333	10	6921780
Total Molybdenum (Mo)	ug/L	11	10	6921780
Total Nickel (Ni)	ug/L	45	10	6921780
Total Selenium (Se)	ug/L	1.4	1.0	6921780
Total Silicon (Si)	ug/L	1930	1000	6921780
Total Silver (Ag)	ug/L	0.51	0.20	6921780
Total Strontium (Sr)	ug/L	27300	10	6921780
Total Thallium (Tl)	ug/L	0.16	0.10	6921780
Total Tin (Sn)	ug/L	<50	50	6921780
Total Titanium (Ti)	ug/L	<50	50	6921780
Total Uranium (U)	ug/L	5.6	1.0	6921780
Total Vanadium (V)	ug/L	<50	50	6921780
Total Zinc (Zn)	ug/L	<50	50	6921780
Total Zirconium (Zr)	ug/L	<1.0	1.0	6921780
Total Calcium (Ca)	ug/L	1110000	500	6921779
Total Magnesium (Mg)	ug/L	563000	500	6921779
Total Potassium (K)	ug/L	184000	500	6921779
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BV Labs Job #: COM1484
Report Date: 2020/09/04

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

TOTAL ICPMS METALS FOR CCME CEQG FOR SW (WATER)

BV Labs ID		NMH708		
Sampling Date		2020/08/23 11:20		
COC Number		na		
	UNITS	MEL-26	RDL	QC Batch
Total Sodium (Na)	ug/L	4020000	500	6921779
Total Sulphur (S)	ug/L	400000	30000	6921779
Calculated Parameters				
Total Hardness (CaCO3)	ug/L	5080000	500	6921778
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BV Labs Job #: COM1484
Report Date: 2020/09/04

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

RESULTS OF ANALYSES OF WATER

BV Labs ID		NMH708			NMH708		
Sampling Date		2020/08/23 11:20			2020/08/23 11:20		
COC Number		na			na		
	UNITS	MEL-26	RDL	QC Batch	MEL-26 Lab-Dup	RDL	QC Batch
Calculated Parameters							
Bicarb. Alkalinity (calc. as CaCO ₃)	mg/L	69	1.0	6915317			
Calculated TDS	mg/L	17000	1.0	6915318			
Carb. Alkalinity (calc. as CaCO ₃)	mg/L	<1.0	1.0	6915317			
Inorganics							
Total Ammonia-N	mg/L	29	0.050	6915625			
Conductivity	umho/cm	28000	1.0	6916663			
Free Cyanide (CN)	ug/L	24 (1)	1.0	6929254	24	1.0	6929254
Total Dissolved Solids	mg/L	19400	20	6921753			
Fluoride (F-)	mg/L	<0.10	0.10	6916658			
Total Kjeldahl Nitrogen (TKN)	mg/L	41	5.0	6915632			
Dissolved Organic Carbon	mg/L	19	0.40	6912893			
Total Organic Carbon (TOC)	mg/L	20	0.40	6915812			
Orthophosphate (P)	mg/L	<0.010	0.010	6917388	<0.010	0.010	6917388
Dissolved Oxygen	mg/L	10.2		6915556			
pH	pH	7.45		6916653			
Total Phosphorus	mg/L	0.053	0.020	6915538			
Reactive Silica (SiO ₂)	mg/L	4.3 (2)	0.50	6923452	4.1	0.50	6923452
Total Suspended Solids	mg/L	46	2	6915672	49	2	6915672
Dissolved Sulphate (SO ₄)	mg/L	990	10	6917387	1000	10	6917387
Total Cyanide (CN)	mg/L	0.049	0.0050	6915406	0.050	0.0050	6915406
Turbidity	NTU	0.7	0.1	6916568			
Volatile Suspended Solids	mg/L	34	1	6915686	35	1	6915686
WAD Cyanide (Free)	mg/L	0.014	0.0010	6915404	0.015	0.0010	6915404
Alkalinity (Total as CaCO ₃)	mg/L	70	1.0	6916649			
Dissolved Chloride (Cl-)	mg/L	8700	120	6917382	8700	120	6917382
Nitrite (N)	mg/L	1.03	0.010	6917360			
Nitrate (N)	mg/L	58.3	0.50	6917360			
Nitrate + Nitrite (N)	mg/L	59.4	0.50	6917360			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate (1) See general comments for notes regarding CNFREE-W (2) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.							



BUREAU
VERITAS

BV Labs Job #: COM1484

Report Date: 2020/09/04

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: RS

RESULTS OF ANALYSES OF WATER

BV Labs ID		NMH708			NMH708		
Sampling Date		2020/08/23 11:20			2020/08/23 11:20		
COC Number		na			na		
	UNITS	MEL-26	RDL	QC Batch	MEL-26 Lab-Dup	RDL	QC Batch
RADIONUCLIDE							
Radium-226	Bq/L	0.18	0.0050	6918359			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							



BUREAU
VERITAS

BV Labs Job #: COM1484

Report Date: 2020/09/04

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: RS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		NMH708			NMH708		
Sampling Date		2020/08/23 11:20			2020/08/23 11:20		
COC Number		na			na		
	UNITS	MEL-26	RDL	QC Batch	MEL-26 Lab-Dup	RDL	QC Batch
Metals							
Mercury (Hg)	mg/L	<0.00001	0.00001	6918286			
Dissolved Mercury (Hg)	mg/L	<0.00001	0.00001	6918281	<0.00001	0.00001	6918281
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							
Lab-Dup = Laboratory Initiated Duplicate							



BV Labs Job #: COM1484
Report Date: 2020/09/04

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

TEST SUMMARY

BV Labs ID: NMH708
Sample ID: MEL-26
Matrix: Water

Collected: 2020/08/23
Shipped:
Received: 2020/08/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	6916649	N/A	2020/08/31	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	6915317	N/A	2020/09/04	Automated Statchk
Chloride by Automated Colourimetry	KONE	6917382	N/A	2020/08/31	Deonarine Ramnarine
Conductivity	AT	6916663	N/A	2020/08/31	Surinder Rai
Free (WAD) Cyanide	SKAL/CN	6915404	N/A	2020/08/28	Louise Harding
Total Cyanide	SKAL/CN	6915406	2020/08/28	2020/08/28	Louise Harding
Dissolved Organic Carbon (DOC)	TOCV/NDIR	6912893	N/A	2020/08/28	Nimarta Singh
Dissolved Oxygen	DO	6915556	2020/08/28	2020/08/28	Navjot Kaur Gill
Fluoride	ISE	6916658	2020/08/28	2020/08/31	Surinder Rai
Dissolved Mercury (low level)	CV/AA	6918281	2020/08/31	2020/08/31	Meghaben Patel
Mercury (low level)	CV/AA	6918286	2020/08/31	2020/08/31	Meghaben Patel
Chloride & Sulphate by Auto Colorimetry	KONE	6918189	N/A	2020/08/30	Serena Tian
Cyanide (Free)	SPEC	6929254	2020/09/04	2020/09/04	Taylor Mullings
Conductivity @25C	COND	6929251	N/A	2020/08/29	Tracy (Jing) Ling
Hardness Total (calculated as CaCO3)	CALC	6921778	N/A	2020/09/01	Automated Statchk
Hardness (calculated as CaCO3)	CALC	6921781	N/A	2020/09/01	Automated Statchk
Elements by ICP-Dissolved-Lab Filtered	ICP	6929252	N/A	2020/08/31	Jason Bao
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	ICP	6921782	N/A	2020/09/01	Automated Statchk
Elements by CRC ICPMS (dissolved)	ICP/MS	6921783	N/A	2020/08/31	Andrew An
Na, K, Ca, Mg, S by CRC ICPMS (total)	ICP	6921779	2020/09/01	2020/09/01	Automated Statchk
Elements by CRC ICPMS (total)	ICP/MS	6921780	2020/08/31	2020/09/01	Andrew An
pH @25°C	AT/PH	6929253	N/A	2020/08/29	Tracy (Jing) Ling
Sodium Adsorption Ratio	CALC	6929204	N/A	2020/08/31	Automated Statchk
Silica (Reactive)	KONE	6923452	N/A	2020/09/01	Fadia Mostafa
Total Dissolved Solids (Calc. from EC)	CALC	6929205	N/A	2020/08/30	Automated Statchk
Total Ammonia-N	LACH/NH4	6915625	N/A	2020/08/31	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	6917360	N/A	2020/08/31	Alina Dobreanu
pH	AT	6916653	2020/08/28	2020/08/31	Surinder Rai
Orthophosphate	KONE	6917388	N/A	2020/08/31	Kazzandra Adeva
Radium-226 Low Level	AS	6918359	N/A	2020/09/02	Blake Barber
Sulphate by Automated Colourimetry	KONE	6917387	N/A	2020/08/31	Deonarine Ramnarine
Calculated Total Dissolved Solids	CALC	6915318	N/A	2020/09/04	Automated Statchk
Total Dissolved Solids	BAL	6921753	2020/09/01	2020/09/02	Shivani Desai
Total Kjeldahl Nitrogen in Water	SKAL	6915632	2020/08/28	2020/08/31	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	6915812	N/A	2020/08/28	Nimarta Singh
Total Phosphorus (Colourimetric)	LACH/P	6915538	2020/08/28	2020/08/31	Shivani Shivani
Low Level Total Suspended Solids	BAL	6915672	2020/08/28	2020/08/29	Jingwei (Alvin) Shi
Turbidity	AT	6916568	N/A	2020/08/31	Gnana Thomas
Low Level Volatile Suspended Solids	BAL	6915686	2020/08/28	2020/08/29	Shivani Desai



BV Labs Job #: COM1484
Report Date: 2020/09/04

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

TEST SUMMARY

BV Labs ID: NMH708 Dup
Sample ID: MEL-26
Matrix: Water

Collected: 2020/08/23
Shipped:
Received: 2020/08/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride by Automated Colourimetry	KONE	6917382	N/A	2020/08/31	Deonarine Ramnarine
Free (WAD) Cyanide	SKAL/CN	6915404	N/A	2020/08/28	Louise Harding
Total Cyanide	SKAL/CN	6915406	2020/08/28	2020/08/28	Louise Harding
Dissolved Mercury (low level)	CV/AA	6918281	2020/08/31	2020/08/31	Meghaben Patel
Cyanide (Free)	SPEC	6929254	2020/09/04	2020/09/04	Taylor Mullings
Elements by ICP-Dissolved-Lab Filtered	ICP	6929252	N/A	2020/08/31	Jason Bao
Silica (Reactive)	KONE	6923452	N/A	2020/09/01	Fadia Mostafa
Orthophosphate	KONE	6917388	N/A	2020/08/31	Kazzandra Adeva
Sulphate by Automated Colourimetry	KONE	6917387	N/A	2020/08/31	Deonarine Ramnarine
Low Level Total Suspended Solids	BAL	6915672	2020/08/28	2020/08/29	Jingwei (Alvin) Shi
Low Level Volatile Suspended Solids	BAL	6915686	2020/08/28	2020/08/29	Shivani Desai



GENERAL COMMENTS

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

Package 1	11.0°C
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Sample NMH708 [MEL-26] : Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results

Sample was not submitted in an appropriate container for CNFREE-W analysis. Results may have a high bias due to decomposition of hexacyanoferrate and some other metal-cyanide complexes to free cyanide

Sample pH <12, preservation incomplete. Due to volatility of analyte, a low bias in the results is likely.

DISS. ICPMS METALS FOR FEDERAL INT. GWQG (WATER)

Sample NMH708 [MEL-26] Elements by CRC ICPMS (dissolved): RDL raised due to concentration over linear range, sample dilution required.

TOTAL ICPMS METALS FOR CCME CEQG FOR SW (WATER)

Sample NMH708 [MEL-26] Elements by CRC ICPMS (total): RDL raised due to concentration over linear range, sample dilution required.

Results relate only to the items tested.



BV Labs Job #: COM1484
Report Date: 2020/09/04

QUALITY ASSURANCE REPORT

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6912893	Dissolved Organic Carbon	2020/08/28	98	80 - 120	101	80 - 120	<0.40	mg/L	0.63	20		
6915404	WAD Cyanide (Free)	2020/08/28	98	80 - 120	98	80 - 120	<0.0010	mg/L	6.1	20		
6915406	Total Cyanide (CN)	2020/08/28	98	80 - 120	98	80 - 120	<0.0050	mg/L	3.2	20		
6915538	Total Phosphorus	2020/08/31	96	80 - 120	99	80 - 120	<0.020	mg/L	2.2	20	96	80 - 120
6915625	Total Ammonia-N	2020/08/31	100	75 - 125	103	80 - 120	<0.050	mg/L	NC	20		
6915632	Total Kjeldahl Nitrogen (TKN)	2020/08/31	NC	80 - 120	94	80 - 120	<0.10	mg/L	4.4	20	95	80 - 120
6915672	Total Suspended Solids	2020/08/29					<1	mg/L	6.8	25	97	85 - 115
6915686	Volatile Suspended Solids	2020/08/29					<1	mg/L	2.3	25		
6915812	Total Organic Carbon (TOC)	2020/08/28	98	80 - 120	103	80 - 120	<0.40	mg/L	0.33	20		
6916568	Turbidity	2020/08/31			109	85 - 115	<0.1	NTU	1.5	20		
6916649	Alkalinity (Total as CaCO3)	2020/08/31			97	85 - 115	<1.0	mg/L	NC	20		
6916653	pH	2020/08/31			102	98 - 103			0.26	N/A		
6916658	Fluoride (F-)	2020/08/31	109	80 - 120	101	80 - 120	<0.10	mg/L	NC	20		
6916663	Conductivity	2020/08/31			101	85 - 115	<1.0	umho/cm	NC	25		
6917360	Nitrate (N)	2020/08/31	95	80 - 120	98	80 - 120	<0.10	mg/L	NC	20		
6917360	Nitrite (N)	2020/08/31	102	80 - 120	95	80 - 120	<0.010	mg/L	NC	20		
6917382	Dissolved Chloride (Cl-)	2020/08/31	NC	80 - 120	103	80 - 120	<1.0	mg/L	0.14	20		
6917387	Dissolved Sulphate (SO4)	2020/08/31	NC	75 - 125	99	80 - 120	<1.0	mg/L	0.39	20		
6917388	Orthophosphate (P)	2020/08/31	100	75 - 125	99	80 - 120	<0.010	mg/L	NC	25		
6918189	Dissolved Chloride (Cl-)	2020/08/30	106	80 - 120	109	80 - 120	<1.0	mg/L				
6918189	Dissolved Sulphate (SO4)	2020/08/30	106	80 - 120	106	80 - 120	<1.0	mg/L				
6918281	Dissolved Mercury (Hg)	2020/08/31	84	75 - 125	100	80 - 120	<0.00001	mg/L	NC	20		
6918286	Mercury (Hg)	2020/08/31	96	75 - 125	97	80 - 120	<0.00001	mg/L	NC	20		
6918359	Radium-226	2020/09/02			108	85 - 115	<0.0050	Bq/L	NC	N/A		
6921753	Total Dissolved Solids	2020/09/02					<10	mg/L	0	25	102	90 - 110
6921780	Total Aluminum (Al)	2020/09/01	106	80 - 120	108	80 - 120	<3.0	ug/L				
6921780	Total Antimony (Sb)	2020/09/01	103	80 - 120	103	80 - 120	<0.50	ug/L				
6921780	Total Arsenic (As)	2020/09/01	105	80 - 120	105	80 - 120	<0.10	ug/L				
6921780	Total Barium (Ba)	2020/09/01	105	80 - 120	106	80 - 120	<1.0	ug/L				
6921780	Total Beryllium (Be)	2020/09/01	108	80 - 120	109	80 - 120	<0.10	ug/L				
6921780	Total Bismuth (Bi)	2020/09/01	94	80 - 120	99	80 - 120	<1.0	ug/L				



BV Labs Job #: COM1484
Report Date: 2020/09/04

QUALITY ASSURANCE REPORT(CONT'D)

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6921780	Total Boron (B)	2020/09/01	106	80 - 120	110	80 - 120	<50	ug/L				
6921780	Total Cadmium (Cd)	2020/09/01	105	80 - 120	107	80 - 120	<0.010	ug/L				
6921780	Total Chromium (Cr)	2020/09/01	102	80 - 120	103	80 - 120	<1.0	ug/L				
6921780	Total Cobalt (Co)	2020/09/01	98	80 - 120	100	80 - 120	<0.20	ug/L				
6921780	Total Copper (Cu)	2020/09/01	100	80 - 120	103	80 - 120	<0.50	ug/L				
6921780	Total Iron (Fe)	2020/09/01	107	80 - 120	106	80 - 120	<10	ug/L				
6921780	Total Lead (Pb)	2020/09/01	105	80 - 120	105	80 - 120	<0.20	ug/L				
6921780	Total Lithium (Li)	2020/09/01	109	80 - 120	107	80 - 120	<2.0	ug/L				
6921780	Total Manganese (Mn)	2020/09/01	NC	80 - 120	105	80 - 120	<1.0	ug/L				
6921780	Total Molybdenum (Mo)	2020/09/01	106	80 - 120	107	80 - 120	<1.0	ug/L				
6921780	Total Nickel (Ni)	2020/09/01	101	80 - 120	104	80 - 120	<1.0	ug/L				
6921780	Total Selenium (Se)	2020/09/01	105	80 - 120	104	80 - 120	<0.10	ug/L				
6921780	Total Silicon (Si)	2020/09/01	NC	80 - 120	111	80 - 120	<100	ug/L				
6921780	Total Silver (Ag)	2020/09/01	105	80 - 120	105	80 - 120	<0.020	ug/L				
6921780	Total Strontium (Sr)	2020/09/01	NC	80 - 120	107	80 - 120	<1.0	ug/L				
6921780	Total Thallium (Tl)	2020/09/01	103	80 - 120	103	80 - 120	<0.010	ug/L				
6921780	Total Tin (Sn)	2020/09/01	100	80 - 120	102	80 - 120	<5.0	ug/L				
6921780	Total Titanium (Ti)	2020/09/01	108	80 - 120	105	80 - 120	<5.0	ug/L				
6921780	Total Uranium (U)	2020/09/01	112	80 - 120	112	80 - 120	<0.10	ug/L				
6921780	Total Vanadium (V)	2020/09/01	105	80 - 120	105	80 - 120	<5.0	ug/L				
6921780	Total Zinc (Zn)	2020/09/01	103	80 - 120	104	80 - 120	<5.0	ug/L				
6921780	Total Zirconium (Zr)	2020/09/01	104	80 - 120	105	80 - 120	<0.10	ug/L				
6921783	Dissolved Aluminum (Al)	2020/08/31	94	80 - 120	93	80 - 120	<3.0	ug/L				
6921783	Dissolved Antimony (Sb)	2020/08/31	98	80 - 120	96	80 - 120	<0.50	ug/L				
6921783	Dissolved Arsenic (As)	2020/08/31	101	80 - 120	95	80 - 120	<0.10	ug/L				
6921783	Dissolved Barium (Ba)	2020/08/31	NC	80 - 120	96	80 - 120	<1.0	ug/L				
6921783	Dissolved Beryllium (Be)	2020/08/31	98	80 - 120	100	80 - 120	<0.10	ug/L				
6921783	Dissolved Bismuth (Bi)	2020/08/31	83	80 - 120	87	80 - 120	<1.0	ug/L				
6921783	Dissolved Boron (B)	2020/08/31	99	80 - 120	97	80 - 120	<50	ug/L				
6921783	Dissolved Cadmium (Cd)	2020/08/31	100	80 - 120	99	80 - 120	<0.010	ug/L				
6921783	Dissolved Chromium (Cr)	2020/08/31	93	80 - 120	96	80 - 120	<1.0	ug/L				
6921783	Dissolved Cobalt (Co)	2020/08/31	93	80 - 120	94	80 - 120	<0.20	ug/L				



BV Labs Job #: COM1484
Report Date: 2020/09/04

QUALITY ASSURANCE REPORT(CONT'D)

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6921783	Dissolved Copper (Cu)	2020/08/31	89	80 - 120	93	80 - 120	<0.20	ug/L				
6921783	Dissolved Iron (Fe)	2020/08/31	97	80 - 120	92	80 - 120	<5.0	ug/L				
6921783	Dissolved Lead (Pb)	2020/08/31	91	80 - 120	98	80 - 120	<0.20	ug/L				
6921783	Dissolved Lithium (Li)	2020/08/31	NC	80 - 120	99	80 - 120	<2.0	ug/L				
6921783	Dissolved Manganese (Mn)	2020/08/31	NC	80 - 120	98	80 - 120	<1.0	ug/L				
6921783	Dissolved Molybdenum (Mo)	2020/08/31	NC	80 - 120	96	80 - 120	<1.0	ug/L				
6921783	Dissolved Nickel (Ni)	2020/08/31	NC	80 - 120	98	80 - 120	<1.0	ug/L				
6921783	Dissolved Selenium (Se)	2020/08/31	102	80 - 120	98	80 - 120	<0.10	ug/L				
6921783	Dissolved Silicon (Si)	2020/08/31	102	80 - 120	92	80 - 120	<100	ug/L				
6921783	Dissolved Silver (Ag)	2020/08/31	96	80 - 120	95	80 - 120	<0.020	ug/L				
6921783	Dissolved Strontium (Sr)	2020/08/31	NC	80 - 120	98	80 - 120	<1.0	ug/L				
6921783	Dissolved Thallium (Tl)	2020/08/31	93	80 - 120	92	80 - 120	<0.010	ug/L				
6921783	Dissolved Tin (Sn)	2020/08/31	99	80 - 120	93	80 - 120	<5.0	ug/L				
6921783	Dissolved Titanium (Ti)	2020/08/31	102	80 - 120	99	80 - 120	<5.0	ug/L				
6921783	Dissolved Uranium (U)	2020/08/31	104	80 - 120	98	80 - 120	<0.10	ug/L				
6921783	Dissolved Vanadium (V)	2020/08/31	102	80 - 120	99	80 - 120	<5.0	ug/L				
6921783	Dissolved Zinc (Zn)	2020/08/31	129 (1)	80 - 120	100	80 - 120	<5.0	ug/L				
6921783	Dissolved Zirconium (Zr)	2020/08/31	102	80 - 120	94	80 - 120	<0.10	ug/L				
6923452	Reactive Silica (SiO ₂)	2020/09/01	104	80 - 120	105	80 - 120	<0.050	mg/L	4.9	20		
6929251	Conductivity	2020/08/29			100	90 - 110	<2.0	uS/cm				
6929252	Dissolved Calcium (Ca)	2020/08/31	NC	80 - 120	103	80 - 120	<0.30	mg/L	0.15	20		
6929252	Dissolved Magnesium (Mg)	2020/08/31	NC	80 - 120	100	80 - 120	<0.20	mg/L	0.15	20		
6929252	Dissolved Potassium (K)	2020/08/31	NC	80 - 120	101	80 - 120	<0.30	mg/L	0.48	20		
6929252	Dissolved Sodium (Na)	2020/08/31	NC	80 - 120	100	80 - 120	<0.50	mg/L	0.25	20		
6929253	pH	2020/08/29			100	97 - 103						



BV Labs Job #: COM1484
Report Date: 2020/09/04

QUALITY ASSURANCE REPORT(CONT'D)

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6929254	Free Cyanide (CN)	2020/09/04	102	80 - 120	102	80 - 120	<1.0	ug/L	0	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.

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 $\leq 2 \times \text{RDL}$).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



BUREAU
VERITAS

BV Labs Job #: COM1484

Report Date: 2020/09/04

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: RS

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Anastassia Hamanov, Scientific Specialist

Brad Newman, Scientific Service Specialist

David Huang, BBY Scientific Specialist

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



Kurt Headrick, Ph.D., C. Chem., Laboratory Manager

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 #: COM1484

Report Date: 2020/09/04

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: RS

**Exceedance Summary Table – Metal Mining Effluent Reg
Result Exceedances**

Sample ID	BV Labs ID	Parameter	Criteria	Result	DL	UNITS
No Exceedances						
The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.						



Your P.O. #: OL-891917
Site Location: MELIADINE

Attention: Reporting

Agnico-Eagle
Meliadine
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2020/09/03
Report #: R6318120
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: COM6190

Received: 2020/09/02, 12:49

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Low Level Total Suspended Solids (1)	4	2020/09/03	2020/09/03	CAM SOP-00428	SM 23 2540D m
Low Level Volatile Suspended Solids (1)	4	2020/09/03	2020/09/03	CAM SOP-00428	SM 23 2540

Remarks:

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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 BV Labs, results relate to the supplied samples tested.

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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 Laboratories Mississauga



Your P.O. #: OL-891917
Site Location: MELIADINE

Attention: Reporting

Agnico-Eagle
Meliadine
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2020/09/03
Report #: R6318120
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: COM6190

Received: 2020/09/02, 12:49

Encryption Key

Katherine Szozda

Katherine Szozda
Project Manager
03 Sep 2020 16:00:23

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

Katherine Szozda, Project Manager
Email: Katherine.Szozda@bvlabs.com
Phone# (613) 274-0573

=====

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BUREAU
VERITAS

BV Labs Job #: COM6190

Report Date: 2020/09/03

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: BH

RESULTS OF ANALYSES OF WATER

BV Labs ID		NNJ522	NNJ523	NNJ524	NNJ525		
Sampling Date		2020/08/29 06:32	2020/08/29 06:42	2020/08/29 06:50	2020/08/29 09:20		
	UNITS	SETP DISCHARGE	SP3-BF	SP3-AF	MEL-26	RDL	QC Batch
Inorganics							
Total Suspended Solids	mg/L	8	6	11	7	1	6925467
Volatile Suspended Solids	mg/L	5	5	6	5	1	6925477
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							



BV Labs Job #: COM6190
Report Date: 2020/09/03

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: BH

TEST SUMMARY

BV Labs ID: NNJ522
Sample ID: SETP DISCHARGE
Matrix: Water

Collected: 2020/08/29
Shipped:
Received: 2020/09/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low Level Total Suspended Solids	BAL	6925467	2020/09/03	2020/09/03	Massarat Jan
Low Level Volatile Suspended Solids	BAL	6925477	2020/09/03	2020/09/03	Massarat Jan

BV Labs ID: NNJ523
Sample ID: SP3-BF
Matrix: Water

Collected: 2020/08/29
Shipped:
Received: 2020/09/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low Level Total Suspended Solids	BAL	6925467	2020/09/03	2020/09/03	Massarat Jan
Low Level Volatile Suspended Solids	BAL	6925477	2020/09/03	2020/09/03	Massarat Jan

BV Labs ID: NNJ524
Sample ID: SP3-AF
Matrix: Water

Collected: 2020/08/29
Shipped:
Received: 2020/09/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low Level Total Suspended Solids	BAL	6925467	2020/09/03	2020/09/03	Massarat Jan
Low Level Volatile Suspended Solids	BAL	6925477	2020/09/03	2020/09/03	Massarat Jan

BV Labs ID: NNJ525
Sample ID: MEL-26
Matrix: Water

Collected: 2020/08/29
Shipped:
Received: 2020/09/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low Level Total Suspended Solids	BAL	6925467	2020/09/03	2020/09/03	Massarat Jan
Low Level Volatile Suspended Solids	BAL	6925477	2020/09/03	2020/09/03	Massarat Jan



BV Labs Job #: COM6190
Report Date: 2020/09/03

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: BH

GENERAL COMMENTS

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

Package 1	13.3°C
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Results relate only to the items tested.



BUREAU
VERITAS

BV Labs Job #: COM6190
Report Date: 2020/09/03

QUALITY ASSURANCE REPORT

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: BH

QC Batch	Parameter	Date	Method Blank		RPD		QC Standard	
			Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6925467	Total Suspended Solids	2020/09/03	<1	mg/L	6.8	25	100	85 - 115
6925477	Volatile Suspended Solids	2020/09/03	<1	mg/L	6.7	25		
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.								
QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.								
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.								



BUREAU
VERITAS

BV Labs Job #: COM6190

Report Date: 2020/09/03

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: BH

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Anastassia Hamanov, Scientific Specialist

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BUREAU
VERITAS

BV Labs Job #: COM6190

Report Date: 2020/09/03

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: BH

Exceedance Summary Table – Metal Mining Effluent Reg
Result Exceedances

Sample ID	BV Labs ID	Parameter	Criteria	Result	DL	UNITS
No Exceedances						
The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.						



Your P.O. #: OL-891917
Site Location: MELIADINE

Attention: Reporting

Agnico-Eagle
Meliadine
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2020/09/03
Report #: R6318116
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: COM6200

Received: 2020/09/02, 12:49

Sample Matrix: Water
Samples Received: 5

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Low Level Total Suspended Solids (1)	5	2020/09/03	2020/09/03	CAM SOP-00428	SM 23 2540D m
Low Level Volatile Suspended Solids (1)	5	2020/09/03	2020/09/03	CAM SOP-00428	SM 23 2540

Remarks:

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

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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 Laboratories Mississauga



Your P.O. #: OL-891917
Site Location: MELIADINE

Attention: Reporting

Agnico-Eagle
Meliadine
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2020/09/03
Report #: R6318116
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: COM6200

Received: 2020/09/02, 12:49

Encryption Key

Katherine Szozda

Katherine Szozda
Project Manager
03 Sep 2020 15:59:06

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

Katherine Szozda, Project Manager
Email: Katherine.Szozda@bvlabs.com
Phone# (613) 274-0573

=====

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BUREAU
VERITAS

BV Labs Job #: COM6200

Report Date: 2020/09/03

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: BH

RESULTS OF ANALYSES OF WATER

BV Labs ID		NNJ562	NNJ563	NNJ564	NNJ565	NNJ566		
Sampling Date		2020/08/30 06:05	2020/08/30 06:10	2020/08/30 06:17	2020/08/30 08:25	2020/08/30 09:36		
	UNITS	SETP DISCHARGE	SP3-BF	SP3-AF	MEL-26	SP4	RDL	QC Batch
Inorganics								
Total Suspended Solids	mg/L	9	8	6	7	13	1	6925467
Volatile Suspended Solids	mg/L	6	4	4	4	6	1	6925477
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								



BV Labs Job #: COM6200
Report Date: 2020/09/03

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: BH

TEST SUMMARY

BV Labs ID: NNJ562
Sample ID: SETP DISCHARGE
Matrix: Water

Collected: 2020/08/30
Shipped:
Received: 2020/09/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low Level Total Suspended Solids	BAL	6925467	2020/09/03	2020/09/03	Massarat Jan
Low Level Volatile Suspended Solids	BAL	6925477	2020/09/03	2020/09/03	Massarat Jan

BV Labs ID: NNJ563
Sample ID: SP3-BF
Matrix: Water

Collected: 2020/08/30
Shipped:
Received: 2020/09/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low Level Total Suspended Solids	BAL	6925467	2020/09/03	2020/09/03	Massarat Jan
Low Level Volatile Suspended Solids	BAL	6925477	2020/09/03	2020/09/03	Massarat Jan

BV Labs ID: NNJ564
Sample ID: SP3-AF
Matrix: Water

Collected: 2020/08/30
Shipped:
Received: 2020/09/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low Level Total Suspended Solids	BAL	6925467	2020/09/03	2020/09/03	Massarat Jan
Low Level Volatile Suspended Solids	BAL	6925477	2020/09/03	2020/09/03	Massarat Jan

BV Labs ID: NNJ565
Sample ID: MEL-26
Matrix: Water

Collected: 2020/08/30
Shipped:
Received: 2020/09/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low Level Total Suspended Solids	BAL	6925467	2020/09/03	2020/09/03	Massarat Jan
Low Level Volatile Suspended Solids	BAL	6925477	2020/09/03	2020/09/03	Massarat Jan

BV Labs ID: NNJ566
Sample ID: SP4
Matrix: Water

Collected: 2020/08/30
Shipped:
Received: 2020/09/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low Level Total Suspended Solids	BAL	6925467	2020/09/03	2020/09/03	Massarat Jan
Low Level Volatile Suspended Solids	BAL	6925477	2020/09/03	2020/09/03	Massarat Jan



BUREAU
VERITAS

BV Labs Job #: COM6200

Report Date: 2020/09/03

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: BH

GENERAL COMMENTS

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

Package 1	13.3°C
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Results relate only to the items tested.



BUREAU
VERITAS

BV Labs Job #: COM6200
Report Date: 2020/09/03

QUALITY ASSURANCE REPORT

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: BH

QC Batch	Parameter	Date	Method Blank		RPD		QC Standard	
			Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6925467	Total Suspended Solids	2020/09/03	<1	mg/L	6.8	25	100	85 - 115
6925477	Volatile Suspended Solids	2020/09/03	<1	mg/L	6.7	25		
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.								
QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.								
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.								



BUREAU
VERITAS

BV Labs Job #: COM6200

Report Date: 2020/09/03

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: BH

VALIDATION SIGNATURE PAGE

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Anastassia Hamanov, Scientific Specialist

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BUREAU
VERITAS

BV Labs Job #: COM6200

Report Date: 2020/09/03

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: BH

Exceedance Summary Table – Metal Mining Effluent Reg
Result Exceedances

Sample ID	BV Labs ID	Parameter	Criteria	Result	DL	UNITS
No Exceedances						
The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.						



Your P.O. #: OL-891917
Site#: 62 48'01.99" 92 06' 00.05"
Site Location: MELIADINE

Attention: Reporting

Agnico-Eagle
Meliadine
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2020/09/10
Report #: R6325603
Version: 3 - Partial

CERTIFICATE OF ANALYSIS – PARTIAL RESULTS

BV LABS JOB #: C0M6364

Received: 2020/09/02, 12:40

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Free (WAD) Cyanide	1	N/A	2020/09/03	CAM SOP-00457	OMOE E3015 m
Total Cyanide	1	2020/09/03	2020/09/03	CAM SOP-00457	OMOE E3015 5 m
Hardness Total (calculated as CaCO ₃) (1, 2)	1	N/A	2020/09/09	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO ₃) (1)	1	N/A	2020/09/05	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (diss.) (1)	1	N/A	2020/09/05	BBY7SOP-00002	EPA 6020B R2 m
Elements by CRC ICPMS (dissolved) (1)	1	N/A	2020/09/04	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total) (1)	1	2020/09/02	2020/09/09	BBY7SOP-00002	EPA 6020B R2 m
Elements by CRC ICPMS (total) (1)	1	2020/09/09	2020/09/09	BBY7SOP-00003/02	EPA 6020B R2 m
Low Level Total Suspended Solids	1	2020/09/03	2020/09/03	CAM SOP-00428	SM 23 2540D m
Low Level Volatile Suspended Solids	1	2020/09/03	2020/09/03	CAM SOP-00428	SM 23 2540

Remarks:

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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.

Your P.O. #: OL-891917
Site#: 62 48'01.99" 92 06' 00.05"
Site Location: MELIADINE

Attention: Reporting

Agnico-Eagle
Meliadine
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2020/09/10
Report #: R6325603
Version: 3 - Partial

CERTIFICATE OF ANALYSIS – PARTIAL RESULTS

BV LABS JOB #: C0M6364

Received: 2020/09/02, 12:40

- (1) This test was performed by BVLabs Burnaby via Mississauga
(2) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).

Encryption Key



Katherine Szozda
Project Manager
10 Sep 2020 17:05:36

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

Katherine Szozda, Project Manager
Email: Katherine.Szozda@bvlabs.com
Phone# (905) 817-5700

=====

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BUREAU
VERITAS

BV Labs Job #: COM6364

Report Date: 2020/09/10

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: BH

RESULTS OF ANALYSES OF WATER

BV Labs ID		NNK435		
Sampling Date		2020/08/31 06:25		
	UNITS	MEL-26	RDL	QC Batch
Calculated Parameters				
Dissolved Hardness (CaCO ₃)	mg/L	3990	0.50	6936422
Inorganics				
Total Suspended Solids	mg/L	7	1	6925467
Total Cyanide (CN)	mg/L	0.082	0.0050	6927037
Volatile Suspended Solids	mg/L	6	1	6925477
WAD Cyanide (Free)	mg/L	0.016	0.0010	6927046
Metals				
Dissolved Aluminum (Al)	ug/L	111	30	6935445
Total Aluminum (Al)	ug/L	327	60	6935442
Dissolved Antimony (Sb)	ug/L	<5.0	5.0	6935445
Total Antimony (Sb)	ug/L	<10	10	6935442
Dissolved Arsenic (As)	ug/L	6.5	1.0	6935445
Total Arsenic (As)	ug/L	6.7	2.0	6935442
Dissolved Barium (Ba)	ug/L	158	10	6935445
Total Barium (Ba)	ug/L	155	20	6935442
Dissolved Beryllium (Be)	ug/L	<1.0	1.0	6935445
Total Beryllium (Be)	ug/L	<2.0	2.0	6935442
Dissolved Bismuth (Bi)	ug/L	<10	10	6935445
Total Bismuth (Bi)	ug/L	<20	20	6935442
Dissolved Boron (B)	ug/L	932	500	6935445
Total Boron (B)	ug/L	<1000	1000	6935442
Dissolved Cadmium (Cd)	ug/L	<0.10	0.10	6935445
Total Cadmium (Cd)	ug/L	<0.20	0.20	6935442
Dissolved Chromium (Cr)	ug/L	<10	10	6935445
Total Chromium (Cr)	ug/L	<20	20	6935442
Dissolved Cobalt (Co)	ug/L	4.5	2.0	6935445
Total Cobalt (Co)	ug/L	4.9	4.0	6935442
Dissolved Copper (Cu)	ug/L	3.2	2.0	6935445
Total Copper (Cu)	ug/L	<10	10	6935442
Dissolved Iron (Fe)	ug/L	<50	50	6935445
Total Iron (Fe)	ug/L	<200	200	6935442
Dissolved Lead (Pb)	ug/L	<2.0	2.0	6935445
Total Lead (Pb)	ug/L	<4.0	4.0	6935442
Dissolved Lithium (Li)	ug/L	251	20	6935445
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BUREAU
VERITAS

BV Labs Job #: COM6364

Report Date: 2020/09/10

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: BH

RESULTS OF ANALYSES OF WATER

BV Labs ID		NNK435		
Sampling Date		2020/08/31 06:25		
	UNITS	MEL-26	RDL	QC Batch
Total Lithium (Li)	ug/L	238	40	6935442
Dissolved Manganese (Mn)	ug/L	176	10	6935445
Total Manganese (Mn)	ug/L	179	20	6935442
Dissolved Molybdenum (Mo)	ug/L	22	10	6935445
Total Molybdenum (Mo)	ug/L	21	20	6935442
Dissolved Nickel (Ni)	ug/L	24	10	6935445
Total Nickel (Ni)	ug/L	26	20	6935442
Dissolved Selenium (Se)	ug/L	<1.0	1.0	6935445
Total Selenium (Se)	ug/L	<2.0	2.0	6935442
Dissolved Silicon (Si)	ug/L	1410	1000	6935445
Total Silicon (Si)	ug/L	<2000	2000	6935442
Dissolved Silver (Ag)	ug/L	<0.20	0.20	6935445
Total Silver (Ag)	ug/L	<0.40	0.40	6935442
Dissolved Strontium (Sr)	ug/L	18700	10	6935445
Total Strontium (Sr)	ug/L	17100	20	6935442
Dissolved Thallium (Tl)	ug/L	<0.10	0.10	6935445
Total Thallium (Tl)	ug/L	<0.20	0.20	6935442
Dissolved Tin (Sn)	ug/L	<50	50	6935445
Total Tin (Sn)	ug/L	<100	100	6935442
Dissolved Titanium (Ti)	ug/L	<50	50	6935445
Total Titanium (Ti)	ug/L	<100	100	6935442
Dissolved Uranium (U)	ug/L	2.1	1.0	6935445
Total Uranium (U)	ug/L	2.2	2.0	6935442
Dissolved Vanadium (V)	ug/L	<50	50	6935445
Total Vanadium (V)	ug/L	<100	100	6935442
Dissolved Zinc (Zn)	ug/L	<50	50	6935445
Total Zinc (Zn)	ug/L	<100	100	6935442
Dissolved Zirconium (Zr)	ug/L	<1.0	1.0	6935445
Total Zirconium (Zr)	ug/L	<2.0	2.0	6935442
Dissolved Calcium (Ca)	mg/L	768	0.50	6936423
Total Calcium (Ca)	ug/L	712000	1000	6936425
Dissolved Magnesium (Mg)	mg/L	502	0.50	6936423
Total Magnesium (Mg)	ug/L	478000	1000	6936425
Dissolved Potassium (K)	mg/L	171	0.50	6936423
Total Potassium (K)	ug/L	160000	1000	6936425
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BUREAU
VERITAS

BV Labs Job #: COM6364

Report Date: 2020/09/10

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: BH

RESULTS OF ANALYSES OF WATER

BV Labs ID		NNK435		
Sampling Date		2020/08/31 06:25		
	UNITS	MEL-26	RDL	QC Batch
Dissolved Sodium (Na)	mg/L	4120	0.50	6936423
Total Sodium (Na)	ug/L	3890000	1000	6936425
Dissolved Sulphur (S)	mg/L	375	30	6936423
Total Sulphur (S)	ug/L	347000	60000	6936425
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BUREAU
VERITAS

BV Labs Job #: COM6364

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		NNK435		
Sampling Date		2020/08/31 06:25		
	UNITS	MEL-26	RDL	QC Batch
Calculated Parameters				
Total Hardness (CaCO ₃)	ug/L	3750000	500	6936424
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BUREAU
VERITAS

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GENERAL COMMENTS

Sample NNK435 [MEL-26] : TKN < Ammonia: Both values fall within the method uncertainty for duplicates and are likely equivalent.

RESULTS OF ANALYSES OF WATER

Sample NNK435 [MEL-26] Elements by CRC ICPMS (dissolved): RDL raised due to concentration over linear range, sample dilution required.

Sample NNK435 [MEL-26] Elements by CRC ICPMS (total): RDL raised due to concentration over linear range, sample dilution required.

Results relate only to the items tested.

BV Labs - Partial/Rush Results



BUREAU
VERITAS

BV Labs Job #: COM6364

Report Date: 2020/09/10

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: BH

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6925467	MJ1	QC Standard	Total Suspended Solids	2020/09/03		100	%	85 - 115
6925467	MJ1	Method Blank	Total Suspended Solids	2020/09/03	<1		mg/L	
6925467	MJ1	RPD	Total Suspended Solids	2020/09/03	6.8		%	25
6925477	MJ1	Method Blank	Volatile Suspended Solids	2020/09/03	<1		mg/L	
6925477	MJ1	RPD	Volatile Suspended Solids	2020/09/03	6.7		%	25
6927037	GTO	Matrix Spike	Total Cyanide (CN)	2020/09/03		94	%	80 - 120
6927037	GTO	Spiked Blank	Total Cyanide (CN)	2020/09/03		100	%	80 - 120
6927037	GTO	Method Blank	Total Cyanide (CN)	2020/09/03	<0.0050		mg/L	
6927037	GTO	RPD	Total Cyanide (CN)	2020/09/03	NC		%	20
6927046	GTO	Matrix Spike	WAD Cyanide (Free)	2020/09/03		93	%	80 - 120
6927046	GTO	Spiked Blank	WAD Cyanide (Free)	2020/09/03		93	%	80 - 120
6927046	GTO	Method Blank	WAD Cyanide (Free)	2020/09/03	<0.0010		mg/L	
6927046	GTO	RPD	WAD Cyanide (Free)	2020/09/03	8.7		%	20
6935442	AD5	Matrix Spike	Total Aluminum (Al)	2020/09/09		104	%	80 - 120
			Total Antimony (Sb)	2020/09/09		102	%	80 - 120
			Total Arsenic (As)	2020/09/09		107	%	80 - 120
			Total Barium (Ba)	2020/09/09		NC	%	80 - 120
			Total Beryllium (Be)	2020/09/09		103	%	80 - 120
			Total Bismuth (Bi)	2020/09/09		94	%	80 - 120
			Total Boron (B)	2020/09/09		98	%	80 - 120
			Total Cadmium (Cd)	2020/09/09		101	%	80 - 120
			Total Chromium (Cr)	2020/09/09		99	%	80 - 120
			Total Cobalt (Co)	2020/09/09		95	%	80 - 120
			Total Copper (Cu)	2020/09/09		92	%	80 - 120
			Total Iron (Fe)	2020/09/09		NC	%	80 - 120
			Total Lead (Pb)	2020/09/09		104	%	80 - 120
			Total Lithium (Li)	2020/09/09		100	%	80 - 120
			Total Manganese (Mn)	2020/09/09		NC	%	80 - 120
			Total Molybdenum (Mo)	2020/09/09		104	%	80 - 120
			Total Nickel (Ni)	2020/09/09		94	%	80 - 120
			Total Selenium (Se)	2020/09/09		106	%	80 - 120
			Total Silicon (Si)	2020/09/09		NC	%	80 - 120
			Total Silver (Ag)	2020/09/09		98	%	80 - 120
			Total Strontium (Sr)	2020/09/09		NC	%	80 - 120
			Total Thallium (Tl)	2020/09/09		98	%	80 - 120
			Total Tin (Sn)	2020/09/09		100	%	80 - 120
			Total Titanium (Ti)	2020/09/09		103	%	80 - 120
			Total Uranium (U)	2020/09/09		112	%	80 - 120
			Total Vanadium (V)	2020/09/09		102	%	80 - 120
			Total Zinc (Zn)	2020/09/09		99	%	80 - 120
			Total Zirconium (Zr)	2020/09/09		104	%	80 - 120
6935442	AD5	Spiked Blank	Total Aluminum (Al)	2020/09/09		106	%	80 - 120
			Total Antimony (Sb)	2020/09/09		99	%	80 - 120
			Total Arsenic (As)	2020/09/09		101	%	80 - 120
			Total Barium (Ba)	2020/09/09		106	%	80 - 120
			Total Beryllium (Be)	2020/09/09		107	%	80 - 120
			Total Bismuth (Bi)	2020/09/09		98	%	80 - 120
			Total Boron (B)	2020/09/09		102	%	80 - 120
			Total Cadmium (Cd)	2020/09/09		102	%	80 - 120
			Total Chromium (Cr)	2020/09/09		102	%	80 - 120
			Total Cobalt (Co)	2020/09/09		101	%	80 - 120

BV Labs - Partial/Rush Results



BUREAU
VERITAS

BV Labs Job #: COM6364

Report Date: 2020/09/10

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: BH

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6935442	AD5	Method Blank	Total Copper (Cu)	2020/09/09		101	%	80 - 120
			Total Iron (Fe)	2020/09/09		102	%	80 - 120
			Total Lead (Pb)	2020/09/09		104	%	80 - 120
			Total Lithium (Li)	2020/09/09		101	%	80 - 120
			Total Manganese (Mn)	2020/09/09		102	%	80 - 120
			Total Molybdenum (Mo)	2020/09/09		100	%	80 - 120
			Total Nickel (Ni)	2020/09/09		101	%	80 - 120
			Total Selenium (Se)	2020/09/09		104	%	80 - 120
			Total Silicon (Si)	2020/09/09		103	%	80 - 120
			Total Silver (Ag)	2020/09/09		100	%	80 - 120
			Total Strontium (Sr)	2020/09/09		101	%	80 - 120
			Total Thallium (Tl)	2020/09/09		99	%	80 - 120
			Total Tin (Sn)	2020/09/09		97	%	80 - 120
			Total Titanium (Ti)	2020/09/09		104	%	80 - 120
			Total Uranium (U)	2020/09/09		108	%	80 - 120
			Total Vanadium (V)	2020/09/09		102	%	80 - 120
			Total Zinc (Zn)	2020/09/09		103	%	80 - 120
			Total Zirconium (Zr)	2020/09/09		97	%	80 - 120
			Total Aluminum (Al)	2020/09/09	<3.0		ug/L	
			Total Antimony (Sb)	2020/09/09	<0.50		ug/L	
			Total Arsenic (As)	2020/09/09	<0.10		ug/L	
			Total Barium (Ba)	2020/09/09	<1.0		ug/L	
			Total Beryllium (Be)	2020/09/09	<0.10		ug/L	
			Total Bismuth (Bi)	2020/09/09	<1.0		ug/L	
			Total Boron (B)	2020/09/09	<50		ug/L	
			Total Cadmium (Cd)	2020/09/09	<0.010		ug/L	
			Total Chromium (Cr)	2020/09/09	<1.0		ug/L	
			Total Cobalt (Co)	2020/09/09	<0.20		ug/L	
			Total Copper (Cu)	2020/09/09	<0.50		ug/L	
			Total Iron (Fe)	2020/09/09	<10		ug/L	
			Total Lead (Pb)	2020/09/09	<0.20		ug/L	
			Total Lithium (Li)	2020/09/09	<2.0		ug/L	
			Total Manganese (Mn)	2020/09/09	<1.0		ug/L	
			Total Molybdenum (Mo)	2020/09/09	<1.0		ug/L	
			Total Nickel (Ni)	2020/09/09	<1.0		ug/L	
			Total Selenium (Se)	2020/09/09	<0.10		ug/L	
			Total Silicon (Si)	2020/09/09	<100		ug/L	
			Total Silver (Ag)	2020/09/09	<0.020		ug/L	
			Total Strontium (Sr)	2020/09/09	<1.0		ug/L	
			Total Thallium (Tl)	2020/09/09	<0.010		ug/L	
			Total Tin (Sn)	2020/09/09	<5.0		ug/L	
			Total Titanium (Ti)	2020/09/09	<5.0		ug/L	
			Total Uranium (U)	2020/09/09	<0.10		ug/L	
			Total Vanadium (V)	2020/09/09	<5.0		ug/L	
			Total Zinc (Zn)	2020/09/09	<5.0		ug/L	
			Total Zirconium (Zr)	2020/09/09	<0.10		ug/L	
6935445	VBA	Matrix Spike	Dissolved Aluminum (Al)	2020/09/04		101	%	80 - 120
			Dissolved Antimony (Sb)	2020/09/04		100	%	80 - 120
			Dissolved Arsenic (As)	2020/09/04		104	%	80 - 120
			Dissolved Barium (Ba)	2020/09/04		NC	%	80 - 120
			Dissolved Beryllium (Be)	2020/09/04		99	%	80 - 120

BV Labs - Partial/Rush Results



BUREAU
VERITAS

BV Labs Job #: COM6364

Report Date: 2020/09/10

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: BH

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6935445	VBA	Spiked Blank	Dissolved Bismuth (Bi)	2020/09/04		90	%	80 - 120
			Dissolved Boron (B)	2020/09/04		98	%	80 - 120
			Dissolved Cadmium (Cd)	2020/09/04		101	%	80 - 120
			Dissolved Chromium (Cr)	2020/09/04		97	%	80 - 120
			Dissolved Cobalt (Co)	2020/09/04		92	%	80 - 120
			Dissolved Copper (Cu)	2020/09/04		89	%	80 - 120
			Dissolved Iron (Fe)	2020/09/04		95	%	80 - 120
			Dissolved Lead (Pb)	2020/09/04		96	%	80 - 120
			Dissolved Lithium (Li)	2020/09/04		94	%	80 - 120
			Dissolved Manganese (Mn)	2020/09/04		NC	%	80 - 120
			Dissolved Molybdenum (Mo)	2020/09/04		106	%	80 - 120
			Dissolved Nickel (Ni)	2020/09/04		90	%	80 - 120
			Dissolved Selenium (Se)	2020/09/04		107	%	80 - 120
			Dissolved Silicon (Si)	2020/09/04		NC	%	80 - 120
			Dissolved Silver (Ag)	2020/09/04		99	%	80 - 120
			Dissolved Strontium (Sr)	2020/09/04		NC	%	80 - 120
			Dissolved Thallium (Tl)	2020/09/04		96	%	80 - 120
			Dissolved Tin (Sn)	2020/09/04		99	%	80 - 120
			Dissolved Titanium (Ti)	2020/09/04		100	%	80 - 120
			Dissolved Uranium (U)	2020/09/04		105	%	80 - 120
			Dissolved Vanadium (V)	2020/09/04		100	%	80 - 120
			Dissolved Zinc (Zn)	2020/09/04		95	%	80 - 120
			Dissolved Zirconium (Zr)	2020/09/04		104	%	80 - 120
			Dissolved Aluminum (Al)	2020/09/04		103	%	80 - 120
			Dissolved Antimony (Sb)	2020/09/04		100	%	80 - 120
			Dissolved Arsenic (As)	2020/09/04		101	%	80 - 120
			Dissolved Barium (Ba)	2020/09/04		100	%	80 - 120
			Dissolved Beryllium (Be)	2020/09/04		101	%	80 - 120
			Dissolved Bismuth (Bi)	2020/09/04		97	%	80 - 120
			Dissolved Boron (B)	2020/09/04		99	%	80 - 120
			Dissolved Cadmium (Cd)	2020/09/04		104	%	80 - 120
			Dissolved Chromium (Cr)	2020/09/04		101	%	80 - 120
			Dissolved Cobalt (Co)	2020/09/04		100	%	80 - 120
			Dissolved Copper (Cu)	2020/09/04		99	%	80 - 120
			Dissolved Iron (Fe)	2020/09/04		100	%	80 - 120
			Dissolved Lead (Pb)	2020/09/04		100	%	80 - 120
			Dissolved Lithium (Li)	2020/09/04		99	%	80 - 120
			Dissolved Manganese (Mn)	2020/09/04		102	%	80 - 120
			Dissolved Molybdenum (Mo)	2020/09/04		100	%	80 - 120
			Dissolved Nickel (Ni)	2020/09/04		100	%	80 - 120
			Dissolved Selenium (Se)	2020/09/04		103	%	80 - 120
			Dissolved Silicon (Si)	2020/09/04		101	%	80 - 120
			Dissolved Silver (Ag)	2020/09/04		101	%	80 - 120
			Dissolved Strontium (Sr)	2020/09/04		103	%	80 - 120
			Dissolved Thallium (Tl)	2020/09/04		97	%	80 - 120
			Dissolved Tin (Sn)	2020/09/04		99	%	80 - 120
			Dissolved Titanium (Ti)	2020/09/04		102	%	80 - 120
			Dissolved Uranium (U)	2020/09/04		105	%	80 - 120
			Dissolved Vanadium (V)	2020/09/04		100	%	80 - 120
			Dissolved Zinc (Zn)	2020/09/04		103	%	80 - 120
			Dissolved Zirconium (Zr)	2020/09/04		99	%	80 - 120



BUREAU
VERITAS

BV Labs Job #: COM6364

Report Date: 2020/09/10

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: BH

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6935445	VBA	Method Blank	Dissolved Aluminum (Al)	2020/09/04	<3.0		ug/L	
			Dissolved Antimony (Sb)	2020/09/04	<0.50		ug/L	
			Dissolved Arsenic (As)	2020/09/04	<0.10		ug/L	
			Dissolved Barium (Ba)	2020/09/04	<1.0		ug/L	
			Dissolved Beryllium (Be)	2020/09/04	<0.10		ug/L	
			Dissolved Bismuth (Bi)	2020/09/04	<1.0		ug/L	
			Dissolved Boron (B)	2020/09/04	<50		ug/L	
			Dissolved Cadmium (Cd)	2020/09/04	<0.010		ug/L	
			Dissolved Chromium (Cr)	2020/09/04	<1.0		ug/L	
			Dissolved Cobalt (Co)	2020/09/04	<0.20		ug/L	
			Dissolved Copper (Cu)	2020/09/04	<0.20		ug/L	
			Dissolved Iron (Fe)	2020/09/04	<5.0		ug/L	
			Dissolved Lead (Pb)	2020/09/04	<0.20		ug/L	
			Dissolved Lithium (Li)	2020/09/04	<2.0		ug/L	
			Dissolved Manganese (Mn)	2020/09/04	<1.0		ug/L	
			Dissolved Molybdenum (Mo)	2020/09/04	<1.0		ug/L	
			Dissolved Nickel (Ni)	2020/09/04	<1.0		ug/L	
			Dissolved Selenium (Se)	2020/09/04	<0.10		ug/L	
			Dissolved Silicon (Si)	2020/09/04	<100		ug/L	
			Dissolved Silver (Ag)	2020/09/04	<0.020		ug/L	
			Dissolved Strontium (Sr)	2020/09/04	<1.0		ug/L	
			Dissolved Thallium (Tl)	2020/09/04	<0.010		ug/L	
			Dissolved Tin (Sn)	2020/09/04	<5.0		ug/L	
			Dissolved Titanium (Ti)	2020/09/04	<5.0		ug/L	
			Dissolved Uranium (U)	2020/09/04	<0.10		ug/L	
			Dissolved Vanadium (V)	2020/09/04	<5.0		ug/L	
			Dissolved Zinc (Zn)	2020/09/04	<5.0		ug/L	
			Dissolved Zirconium (Zr)	2020/09/04	<0.10		ug/L	

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.

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 $\leq 2 \times \text{RDL}$).

BV Labs - Partial/Rush Results



BUREAU
VERITAS

BV Labs Job #: COM6364

Report Date: 2020/09/10

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: BH

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Anastassia Hamanov, Scientific Specialist

David Huang, BBY Scientific Specialist

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.

BV Labs - Partial/Rush Results



Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR 06-09-2020		REPORT TIME 9:30		<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
	OCCURRENCE DATE: MONTH – DAY – YEAR 05-09-2020		OCCURRENCE TIME 11:00			
C	LAND USE PERMIT NUMBER (IF APPLICABLE) KVPL11D01			WATER LICENCE NUMBER (IF APPLICABLE) 2AM-MEL1631		
	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Meliadine Gold Project				REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN	
E	LATITUDE DEGREES 63 MINUTES 2 SECONDS 46			LONGITUDE DEGREES 92 MINUTES 14 SECONDS 17		
	RESPONSIBLE PARTY OR VESSEL NAME Agnico Eagle Mines Ltd.		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Meliadine, Rankin Inlet, Nunavut, X0C 0G0			
G	ANY CONTRACTOR INVOLVED None		CONTRACTOR ADDRESS OR OFFICE LOCATION			
	PRODUCT SPILLED Hydrocarbons		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 100 L		U.N. NUMBER N/A	
H	SECOND PRODUCT SPILLED (IF APPLICABLE) N/A		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES N/A		U.N. NUMBER N/A	
	SPILL SOURCE Hyster RS46-36		SPILL CAUSE Human Error		AREA OF CONTAMINATION IN SQUARE METRES 100	
J	FACTORS AFFECTING SPILL OR RECOVERY N/A		DESCRIBE ANY ASSISTANCE REQUIRED N/A		HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT N/A	
	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS A Hyster RS46-36 rolled over. Some of the contents of the fuel, transmission and hydraulic oil tanks spilled to the ground, where it was confined to a drainage channel, which is part of the sites' water management system. The spill did not migrate off-site. The nearest water body (G2) is approximately 160 meters away. Pursuant to Part H, Section 8c of the water license, a follow-up report will be issued after a closer investigation is completed. Reported by Dan Gorton, Environment Coordinator, 819-759-3555 ext 4603996 meli.environment@agnicoeagle.com					
L	REPORTED TO SPILL LINE BY Dan Gorton	POSITION Coordinator	EMPLOYER AEM	LOCATION CALLING FROM Meliadine	TELEPHONE 819-759-3555	
	M	ANY ALTERNATE CONTACT Terry Ternes	POSITION General Supervisor	EMPLOYER AEM	ALTERNATE CONTACT Meliadine	ALTERNATE TELEPHONE 819-759-3555
REPORT LINE USE ONLY						
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130	
	LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS		
LEAD AGENCY						
FIRST SUPPORT AGENCY						
SECOND SUPPORT AGENCY						
THIRD SUPPORT AGENCY						

Follow Up Report: #20-316

September 5th 2020, 100 L Hydrocarbon Spill



The following information refers to a spill reported by Agnico Eagle Mines Ltd. September 5th 2020, and is being provided in accordance with:

- the Nunavut Water Board License 2AM-MEL1631 Water License, part H, item 8c
- the Government of Nunavut's, Environmental Protection Act subsection 5.1(a)

Description of Incident:

On September 5th, at approximately 11:00 pm, an estimated 100 L of mixed hydrocarbons spilled from an overturned Hyster RS46-36. The spill consisted of approximately 80 L of hydraulic oil, 15 L of transmission fluid and 5 L of diesel, which released from the vehicle due to damage sustained in the accident. The spill was confined to a drainage channel, which is part of the sites' managed water system. No contaminants migrated off-site. The closest water body (G2) is approximately 160 m away. The coordinates of the spill are 63° 2'46.00"N, 92°14'17.00"W (Figure 1).



Figure 1: Location of spill 100 L hydrocarbon spill from Hyster RS46-36.

Spill Response & Cleanup:

The Environment Department and Emergency Response Team acted quickly to prevent the spill migrating downstream. A series of soil berms were rapidly constructed using an excavator, which blocked the steady flow of water in the channel, upstream and downstream of the source. The berms successfully prevented the spill migrating away from the overturned vehicle. Spill pads were deployed to absorb the hydrocarbons from the surface of the pooled water. The water was then removed and treated in the snow cell, using an oil/water separator. Soil within the channel with potential exposure to hydrocarbons was excavated and transported to the landfarm. Approximately 36 m³ of soil and gravel were removed. A Mini-RAE VOC detector was used during the excavation to verify contaminated material was removed.



Figure 2: Upstream berm being placed while mechanic drains hydraulic, fuel and transmission systems.



Figure 3: Downstream berm installed to contain spill at the source.



Figure 4: Mini RAE VOC detector used to ensure all affected soil was removed.



Figure 5: Road widened, and drainage channel restored.

Corrective Measures





The Energy and Infrastructure department widened the road and added a pull-out to allow vehicles to pass safely. The operator has been assigned to other duties until re-training is completed. Additional emergency spill response equipment is to be purchased to improve response time and capability, and replace items used during the spill response.



Dan Gorton | Environmental Coordinator

dan.gorton@agnicoeagle.com | Direct 819.759.3555 x4603996 |

Agnico Eagle Mines Limited - Meliadine Mine, Suite 879 - Rankin Inlet, Nunavut, Canada X0C 0G0

agnicoeagle.com    

Sent from Meliadine



Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR 09-12-2020	REPORT TIME 9:30	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER _____
B	OCCURRENCE DATE: MONTH – DAY – YEAR 09-11-2020	OCCURRENCE TIME 23:45			
C	LAND USE PERMIT NUMBER (IF APPLICABLE) KVPL11D01	WATER LICENCE NUMBER (IF APPLICABLE) 2AM-MEL1631			
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Meliadine Gold Project		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES 63 MINUTES 2 SECONDS 23		LONGITUDE DEGREES 92 MINUTES 13 SECONDS 41		
F	RESPONSIBLE PARTY OR VESSEL NAME Agnico Eagle Mines Ltd.	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Meliadine, Rankin Inlet, Nunavut, X0C 0G0			
G	ANY CONTRACTOR INVOLVED None	CONTRACTOR ADDRESS OR OFFICE LOCATION			
H	PRODUCT SPILLED Untreated Sewage	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 1.5m3	U.N. NUMBER N.A.		
	SECOND PRODUCT SPILLED (IF APPLICABLE) None	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER		
I	SPILL SOURCE Sludge Filter Press	SPILL CAUSE Equipment Failure	AREA OF CONTAMINATION IN SQUARE METRES 10		
J	FACTORS AFFECTING SPILL OR RECOVERY N/A	DESCRIBE ANY ASSISTANCE REQUIRED N/A	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT None		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS The membrane in the main camp sewage treatment plant failed to maintain the appropriate filtration rate. This caused a tank to overflow, releasing approximately 1.5m3 of partially treated effluent from the sludge filter press building onto the ground. No water bodies were impacted by this release. The closest natural water body is approximately 275m away. The spill is being reported as per NWB License 2AM-MEL1631 Part H, item 8. The exact location of the spill is 63° 2'23.31"N, 92°13'41.07"W. A follow up report will be issued once an investigation has been completed. Reported by Dan Gorton, Environment Coordinator, 819-759-3555 ext 4603996 meli.environment@agnicoeagle.com				
L	REPORTED TO SPILL LINE BY Dan Gorton	POSITION Env. Coordinator	EMPLOYER AEM	LOCATION CALLING FROM Meliadine	TELEPHONE 8197593555
M	ANY ALTERNATE CONTACT Sean Arruda	POSITION Env. Coordinator	EMPLOYER AEM	ALTERNATE CONTACT Meliadine LOCATION	ALTERNATE TELEPHONE 8197593555
REPORT LINE USE ONLY					
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS	
LEAD AGENCY					
FIRST SUPPORT AGENCY					
SECOND SUPPORT AGENCY					
THIRD SUPPORT AGENCY					

Follow Up Report: #20-329

September 11th, 2020 – 1.5 m³ Sewage Spill



The following information refers to a spill reported by Agnico Eagle Mines Ltd. September 11th 2020, and is being provided in accordance with:

- the Nunavut Water Board License 2AM-MEL1631 Water License, part H, item 8c
- the Government of Nunavut's, Environmental Protection Act subsection 5.1(a)

Description of Incident:

On September 11th 2020, at 11:45pm an overflow switch failed to trigger in the main camp sewage treatment plant, which caused a treatment tank to overflow, resulting in approximately 1.5m³ of untreated sewage to spill to the ground. No contaminants migrated off-site. The closest water body (Meliadine Lake) is approximately 420 m away. The coordinates of the spill were 63° 2'23.31"N, 92°13'41.07"W (Figure 1).



Figure 1: Location of main camp sewage treatment plant and proximity to Meliadine Lake.

Spill Response & Cleanup

In response to the overflow, the treatment plant operator redirected influent flow to another tank. Effluent contained within the building was removed using a vacuum truck and input back into the system. A soil berm was deployed to isolate the spill at the source (Figure 2). Effluent contaminated gravel on the industrial pad was removed and disposed of in accordance with the waste management plan (Figure 3).



Figure 2: Soil berm deployed to isolate the spill. Vacuum truck used to removed spill material.



Figure 3: Spilled material and contaminated gravel removed.

Cause of Incident and Corrective Measures

The overflow occurred when fresh liquor and mixed liquor combined to generate foam. The foam failed to trigger the overflow switch, which is designed to alternate flow between tanks. This prevented the treatment tank being isolated from inflow, leading to overflow inside the building. As the building filled, sewage flowed out of an exhaust duct onto the ground. Daily inspections and routine preventative maintenance had been completed as required prior

to the spill. System upgrades are in progress and include the addition of a larger equalizing tank, which will improve capacity and reduce the chance of overflow events (Figure 4).







Figure 4: Construction of pad for addition of new equalizing tank.



Dan Gorton | Environmental Coordinator

dan.gorton@agnicoeagle.com | Direct 819.759.3555 x4603996 |

Agnico Eagle Mines Limited - Meliadine Mine, Suite 879 - Rankin Inlet, Nunavut, Canada X0C 0G0

agnicoeagle.com    



Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR 09-19-2020	REPORT TIME 14:25	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER _____
B	OCCURRENCE DATE: MONTH – DAY – YEAR 09-16-2020	OCCURRENCE TIME Unknown			
C	LAND USE PERMIT NUMBER (IF APPLICABLE) KVPL11D01	WATER LICENCE NUMBER (IF APPLICABLE) 2AM-MEL1631			
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Meliadine Gold Project		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES 62 MINUTES 48 SECONDS 1		LONGITUDE DEGREES 92 MINUTES 5 SECONDS 57		
F	RESPONSIBLE PARTY OR VESSEL NAME Agnico Eagle Mines Ltd.	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Meliadine, Rankin Inlet, Nunavut, X0C 0G0			
G	ANY CONTRACTOR INVOLVED None	CONTRACTOR ADDRESS OR OFFICE LOCATION N/A			
H	PRODUCT SPILLED Treated Saline Water	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES Estimated maximum of 1445m3	U.N. NUMBER N/A		
	SECOND PRODUCT SPILLED (IF APPLICABLE) N/A	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES N/A	U.N. NUMBER N/A		
I	SPILL SOURCE MEL-26 Final Discharge Point	SPILL CAUSE TSS Exceedance	AREA OF CONTAMINATION IN SQUARE METRES Unknown		
J	FACTORS AFFECTING SPILL OR RECOVERY None	DESCRIBE ANY ASSISTANCE REQUIRED None	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT None		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS After receiving results confirming that treated effluent on site was compliant, discharge at compliance point MEL-26 was resumed and a regulatory sample was collected on September 16, 2020. Preliminary results were received on September 18, 2020, indicating TSS levels of 34 mg/L. As due diligence, Agnico Eagle Mines Ltd. has stopped discharge on September 18, 2020. Investigation into the cause of the exceedance is ongoing. Discharge will not resume until the cause of the exceedance is identified and resolved, and sampling results indicate that the discharge to sea system is within compliance. A follow-up report will be issued after a closer investigation is completed. Reported by Sean Arruda, Environment Coordinator 819-759-3555 ext. 4603996 sean.arruda@agnicoeagle.com.				
L	REPORTED TO SPILL LINE BY Sean Arruda	POSITION EnvCoordinator	EMPLOYER AEM	LOCATION CALLING FROM Meliadine	TELEPHONE 8197593555
M	ANY ALTERNATE CONTACT Terry Ternes	POSITION Env GeneralSuperviso	EMPLOYER AEM	ALTERNATE CONTACT Meliadine LOCATION	ALTERNATE TELEPHONE 8197593555
REPORT LINE USE ONLY					
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS	
LEAD AGENCY					
FIRST SUPPORT AGENCY					
SECOND SUPPORT AGENCY					
THIRD SUPPORT AGENCY					

October 21 2020

Re.: Agnico Eagle - Meliadine Project – TSS exceedance to Marine Environment
#2020-344 - Follow-up report

This letter provides additional information following the TSS exceedance reported on September 18th, 2020. Specifically, this letter includes:

- a summary of the background information on the event,
- water quality test results,
- results of the investigation of the event and additional actions taken,
- discussion of possible mechanisms leading to the event, and the proposed path forward.

Background

Agnico Eagle Mines Limited – Meliadine Division informed you via email on September 19th, 2020, that the level of Total Suspended Solids (TSS) from the Saline discharge in Melvin Bay exceeded the limits, set out in MDMER Schedule 4, of 30 mg/L, for the maximum authorized concentration in a grab sample.

The authorized monthly mean limit of 15 mg/L TSS was not exceeded for September. All other parameters were in compliance with MDMER authorized discharge criteria and the toxicity test results show the water discharged to be safe to aquatic life.

This event report was submitted in compliance with the requirements of Part H, Item 8b of Water License 2AM-MEL1631 (Water License), subsection 12(3) of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (Canada), paragraph 5.1(a) of the *Environmental Protection Act* (Nunavut), subsection 38(5) of the *Fisheries Act* (Canada) and paragraph 24(1)(a) of the *Metal and Diamond Mining Effluent Regulations* (MDMER) made under the *Fisheries Act* (Canada) and *reported as required by Meliadine Crown Surface land lease 55K/16-42-2 authorization covenant 42*".

The effluent was sampled on September 16th, 2020. Upon reception of preliminary results on September 18th from our external accredited laboratory, it was observed that Total Suspended Solids (TSS) of 34 mg/L exceeded the regulatory limit of 30 mg/L maximum authorized concentration in a grab sample. Discharge was stopped on September 18th. In order to rule out the possibility of a lab error a request was made to re-analyze the sample, which yielded a final result of 31 mg/L confirming the exceedance. Discharge resumed September 23rd once the TSS source was identified and eliminated.

The initial estimate of the quantity of water released on September 16th was 1445 m³. This calculation was based on the total daily discharge from September 16th to September 18th, when the preliminary laboratory result was received. Final results received September 27th confirmed TSS levels were compliant on September 18th (table 1). Therefore, a combined total of 798m³ of water discharged between September 16th and September 18th was potentially out of compliance for TSS, although the quantity is thought to have been far less.

The investigation identified a single truck as the source of the elevated TSS, due to the truck's tank not being pre-rinsed and inspected efficiently as per the standard operating procedure. Internal monitoring samples collected upstream of the truck loading station, at Saline Pond 3 (SP3) and the Saline Effluent Treatment Plant (SETP) outflow, confirm water loaded into the trucks on September 16th was compliant for TSS (table 2).

The truck hauled one load of treated water to the discharge point, before being taken out of service for cleaning. The sample taken on September 16th was collected from this truck. Therefore, a more accurate

estimate of potentially TSS-affected water discharged to Melvin Bay would be 37 m³, the volume of a single truck. Reception of fully compliant subsequent sampling results from September 18th, confirm the process was effectively treating TSS. No major changes had been made to the process before or after the exceedance.

Toxicity and water quality results

Toxicity tests

Samples were taken for analysis on September 23rd and 28th from the discharged water source. The toxicity test results show the effluent to be safe to aquatic life. Results can be found in Appendix A.

Water quality sampling

Samples are taken regularly to ensure compliance for MDMER related parameters. Results can be found in Appendix A.

Table 1: MDMER related water quality results

Sample Date			16 Sept 2020	18 Sept 2020
Result Received			23 Sept 2020	27 Sept 2020
Laboratory			H2Lab	H2Lab
Location			MEL-26 Discharge in Melvin Bay	
Parameter	Unit	MDMER Limits		
Total suspended solids	mg/L	30	31	6

Sampling and subsequent sample shipment were executed according to site Standard Operating Procedures and samples were sent on the same day via our charter and transported directly to an accredited laboratory (and H2Lab, Val d'Or).

Regular water samples were also collected in the receiving environment during this period and the analysis from these samples showed no exceedances of the MDMER water quality criteria.

Additional investigations, analysis and mitigation measures

Increased sampling was completed at multiple process stages to ensure the source of increased TSS had been correctly identified. Following the campaign conducted, results show that the high TSS level in the water was likely due to a single tanker truck not being thoroughly cleaned.

Mitigation measures have been implemented to prevent reoccurrence.

- All trucks were visually inspected for sediment inside their tanks prior to being filled (Appendix B). A stand down meeting was held with all team members involved, including the truck drivers, to inform them of the importance of these visual inspections and provide context for these mandatory inspections. A Pre-filling Inspection Log template is provided in Appendix B along with example photos.
- The sampling frequency was increased with daily samples taken in multiple locations of the process since August 31st to monitor more closely the compliance of the water.
- Those daily samples are analyzed on site to avoid delays in sampling results and are sent for analysis at an external accredited laboratory.
- Pressure monitoring of the filters has been installed enabling us to detect any anomaly that could arise in a timely manner, and filters are replaced at a higher frequency.

- The operating water level was raised to reduce potential for wind-induced entrainment of sediment from the bottom of SP3.

Path Forward

The action plan remained active until the discharge ceased for the winter time on October 8th, 2020.

Agnico is confident that the overall steps undertaken in understanding and correcting the overall situation that led to the observed exceedance are effective and have improved the stability and reliability of the process.

In addition, the following environmental monitoring was conducted:

- Increased internal and external sampling to determine water quality during active discharge; and.
- A receiving environment monitoring program was carried out in Melvin Bay.

Conclusion

Agnico Eagle's team responded rapidly following this event and was able to implement a series of measures when the exceedance was reported. Water quality data showed that the overall impact of this event in the receiving environment was minimal. Thus, we are confident that the aquatic environment was protected and not impacted. Agnico Eagle is committed to maintaining very close monitoring of this area.

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

Regards,



Sean Arruda / Dan Gorton | Environmental Coordinator

sean.arruda@agnicoeagle.com | dan.gorton@agnicoeagle.com

Direct 819.759.3555 x4603996 |

Agnico Eagle Mines Limited - Meliadine Mine, Suite 879 - Rankin Inlet, Nunavut,
Canada X0C 0G0

agnicoeagle.com

Sent from Meliadine



Appendix A: Sample Results

CLIENT INFORMATION

Aquatox/Agnico Eagle Mines - Meliadine
 Rankin Inlet,
 Nunavut, Canada
 Contact: Martina Rendas

TEST FACILITY INFORMATION

Harris Industrial Testing Service Ltd.
 1320 Ashdale Rd., South Rawdon
 Nova Scotia B0N 1Z0
 Ph : 902 757-0232 Fax: 902 757-2839
 office@harrisindustrial.info

SAMPLE INFORMATION (Client-provided data italicised)

Lab Identification #: 20-493-B
Sample Name/Location: MEL-26 62°48'01.99" 92°06'00.05"
Sampling Method: Grab Sample Homogenized: Yes
Sampler Name: R.S/D.O
Date & Time Sampled: Sep. 23 2020 1546 Hrs
Date & Time Received: Sep. 29 2020 1330 Hrs
 Sample Description: Yellow, transparent liquid.

GENERAL TEST INFORMATION

Reference Method:
 EPS 1/RM/10 July 1990 2nd Ed. December 2017
 Type: LC50 Tox 9B
 General Test Procedures held on file
 Test Organism: *Gasterosteus aculeatus*
 (Threespine stickleback)

PRE-TEST PARAMETERS

Pre-test Temp. (°C): 16.0
 Pre-test D.O. (mg/L): 7.9 D.O. Saturation (%): 89
 Pre-test pH: 7.1
 pH Adjusted: No

Sample Salinity¹ (‰): 17.2
 Seawater Control Salinity¹ (‰): 31.2
 Salinity adjusted Control (‰): 16.8

SAMPLE PRE-TREATMENT

Filtration of sample: No
 Adjustment of sample salinity: No

Mandatory Pre-aeration: Yes Duration: 30 minutes
 Rate: 6.5 ± 1 ml/min/L Time: 1600 hrs
 D.O. (mg/L): 7.9 D.O. saturation (%): 92

Pre-aeration Continued: No Duration: -- min. @ -- hrs
 D.O. (mg/L): -- D.O. saturation (%): --

Aeration continued throughout test by airstone @ 6.5 + 1 ml/min/L

TEST CONDITIONS

Date & Time Test Initiated: Sep. 29 2020 1630 Hrs
 Date & Time Test Terminated: Oct. 03 2020 1630 Hrs

Deviations from Test Method: Yes
 Description: See comment section below

Fish Batch #: 63
 % Mortality over 7 days prior to test: 1.3

Loading Density (g/L): 0.46

Temperature: 15 ± 1°C

Mean Fork Length (mm): 38 ± 6.0 SD

Photoperiod: 16L/8D

Range (mm): 29 - 46

Lux: 100 – 500

Test Volume (L): 11

Depth (cm): 19.6

Replicates: No

Number of fish per vessel: 10

Mean Wet Weight (g): 0.51 ± 0.18 SD

Range (g): 0.21 – 0.75

Static Test, Duration: 96 hours

Control/Dilution Water: Natural Seawater

¹When salinity is >40‰, it is measured using refractometry method (Environment Canada, 2017). When salinity is <40‰, the salinity is measured using conductivity method (*ibid.*).

TEST PARAMETERS									
CONC. %	TEMP. °C	D.O. mg/L	INITIAL (0 hrs)			TEMP. °C	D.O. mg/L	FINAL (96 hrs)	
			D.O. %	pH	SALINITY ‰			D.O. %	pH
100	16.0	7.9	92	7.4	17.3	15.0	8.9	99	7.4
50	16.0	8.2	94	7.6	18.3	15.0	8.8	98	7.5
25	15.5	8.5	97	7.7	19.2	15.0	8.9	99	7.6
12.5	16.0	8.5	97	7.7	19.4	15.0	8.8	99	7.6
6.25	16.0	8.2	98	7.7	19.2	15.0	8.8	99	7.5
Control	16.0	7.6	97	7.8	31.2	15.0	9.1	98	7.5
Sal. Adj. Control	16.0	8.6	98	7.7	16.8	15.0	8.9	98	7.6

TEST RESULTS									
CONC. %	TOTAL MORTALITY #				PERCENT MORTALITY %				
	24 hrs	48 hrs	72 hrs	96 hrs	24 hrs	48 hrs	72 hrs	96 hrs	
100	0/10	0/10	0/10	0/10	0	0	0	0	
50	0/10	0/10	0/10	0/10	0	0	0	0	
25	0/10	0/10	0/10	0/10	0	0	0	0	
12.5	0/10	0/10	0/10	0/10	0	0	0	0	
6.25	0/10	0/10	0/10	0/10	0	0	0	0	
Control	0/10	0/10	0/10	0/10	0	0	0	0	
Sal. Adj. Control	0/10	0/10	0/10	0/10	0	0	0	0	

CONC. %	TOTAL STRESS #				PERCENT STRESS %				
	24 hrs	48 hrs	72 hrs	96 hrs	24 hrs	48 hrs	72 hrs	96 hrs	
100	0/10	0/10	0/10	0/10	0	0	0	0	
50	0/10	0/10	0/10	0/10	0	0	0	0	
25	0/10	0/10	0/10	0/10	0	0	0	0	
12.5	0/10	0/10	0/10	0/10	0	0	0	0	
6.25	0/10	0/10	0/10	0/10	0	0	0	0	
Control	0/10	0/10	0/10	0/10	0	0	0	0	
Sal. Adj. Control	0/10	0/10	0/10	0/10	0	0	0	0	

96 HR LC₅₀ RESULTS

LC₅₀ Value (%): Non-lethal
Result: Pass
95% Confidence Limits (%): N/A
Statistical Method: N/A

REFERENCE TOXICANT DATA

Performed under laboratory conditions as above, no deviations

Batch: 63 Test Date: Sep. 18 – 22 2020

Reference Substance: Phenol

LC₅₀ Value (mg/L): 12.5
 95% Confidence Limits (mg/L): 10.0 – 15.6
 Historical Mean (mg/L): 15.8
 Warning Limits \pm 2 SD (mg/L): 12.0 – 20.7

COMMENTS

Test meets all conditions for test validity. Sample received and analyzed past 5 day hold, as per client request.

TEST AUTHORIZATION AND VERIFICATION

Analyst(s): J. Fraser & K. Marks

Verified by: D. Robinson

Date: Oct. 05 2020

Signed:



REFERENCES

Tidepool Scientific Software, 2001 - 2014. Comprehensive Environmental Toxicity Information System – CETIS v1.8.7.20
Environment Canada, 2017. Biological Test Method: Reference Method for Determining Acute Lethality Using Threespine Stickleback.
Environment and Climate Change Canada, Ottawa, Ontario, Report EPS 1/RM/10, 2nd Edition December 2017.

Accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA Inc.).

The test included in this report is within the scope of this accreditation.

Results apply to the sample as received. The results reported apply only to the sample tested. Results are based on nominal concentrations.

CLIENT INFORMATION

Aquatox/Agnico Eagle Mines - Meliadine
 Rankin Inlet,
 Nunavut, Canada
 Contact: Martina Rendas

TEST FACILITY INFORMATION

Harris Industrial Testing Service Ltd.
 1320 Ashdale Rd., South Rawdon
 Nova Scotia B0N 1Z0
 Ph : 902 757-0232 Fax: 902 757-2839
 office@harrisindustrial.info

SAMPLE INFORMATION (Client-provided data italicised)

Lab Identification #: 20-506
Sample Name/Location: MEL-26 62°48'01.99" 92°06'00.05"
Sampling Method: Grab Sample Homogenized: Yes
Sampler Name: R.S
Date & Time Sampled: Sep. 28 2020 -- Hrs
 Date & Time Received: Oct. 01 2020 1400 Hrs
 Sample Description: Yellow, transparent liquid.

GENERAL TEST INFORMATION

Reference Method:
 EPS 1/RM/10 July 1990 2nd Ed. December 2017
 Type: LC50 Tox 9B
 General Test Procedures held on file
 Test Organism: *Gasterosteus aculeatus*
 (Threespine stickleback)

PRE-TEST PARAMETERS

Pre-test Temp. (°C): 16.0
 Pre-test D.O. (mg/L): 9.2 D.O. Saturation (%): 104
 Pre-test pH: 6.7
 pH Adjusted: No

Sample Salinity¹ (‰): 15.3
 Seawater Control Salinity¹ (‰): 31.0
 Salinity adjusted Control (‰): 15.7

SAMPLE PRE-TREATMENT

Filtration of sample: No
 Adjustment of sample salinity: No

Mandatory Pre-aeration: Yes Duration: 30 minutes
 Rate: 6.5 ± 1 ml/min/L Time: 1500 hrs
 D.O. (mg/L): 9.4 D.O. saturation (%): 103

Pre-aeration Continued: Yes Duration: 60 min. @ 1530 hrs
 D.O. (mg/L): 9.0 D.O. saturation (%): 100

Aeration continued throughout test by airstone @ 6.5 ± 1 ml/min/L

TEST CONDITIONS

Date & Time Test Initiated: Oct. 03 2020 1630 Hrs
 Date & Time Test Terminated: Oct. 07 2020 1630 Hrs

Deviations from Test Method: No
 Description: N/A

Fish Batch #: 64
 % Mortality over 7 days prior to test: 0

Loading Density (g/L): 0.33

Temperature: 15 ± 1°C

Mean Fork Length (mm): 38 ± 2.8 SD

Photoperiod: 16L/8D

Range (mm): 34 - 41

Lux: 100 - 500

Test Volume (L): 13

Depth (cm): 23

Replicates: No

Number of fish per vessel: 10

Mean Wet Weight (g): 0.43 ± 0.10 SD

Range (g): 0.28 - 0.56

Static Test, Duration: 96 hours

Control/Dilution Water: Natural Seawater

¹When salinity is >40‰, it is measured using refractometry method (Environment Canada, 2017). When salinity is <40‰, the salinity is measured using conductivity method (*ibid.*).

TEST PARAMETERS									
CONC. %	TEMP. °C	D.O. mg/L	INITIAL (0 hrs)			TEMP. °C	FINAL (96 hrs)		
			D.O. %	pH	SALINITY ‰		D.O. mg/L	D.O. %	pH
100	15.0	9.0	100	6.9	15.4	16.0	9.1	99	7.3
50	15.0	8.8	99	7.3	15.7	15.5	9.2	98	7.5
25	15.0	9.0	100	7.5	15.4	15.5	9.3	100	7.6
12.5	15.5	8.9	98	7.6	15.2	15.5	8.9	96	7.6
6.25	15.0	8.9	100	7.6	16.1	15.5	9.1	99	7.6
Control	15.0	7.7	94	7.5	31.0	15.5	8.2	99	7.6
Sal. Adj. Control	15.0	9.0	99	7.7	15.7	15.5	9.0	99	7.7

TEST RESULTS									
CONC. %	TOTAL MORTALITY #				PERCENT MORTALITY %				
	24 hrs	48 hrs	72 hrs	96 hrs	24 hrs	48 hrs	72 hrs	96 hrs	
100	0/10	0/10	0/10	0/10	0	0	0	0	
50	0/10	0/10	0/10	0/10	0	0	0	0	
25	0/10	0/10	0/10	0/10	0	0	0	0	
12.5	0/10	0/10	0/10	0/10	0	0	0	0	
6.25	0/10	0/10	0/10	0/10	0	0	0	0	
Control	0/10	0/10	0/10	0/10	0	0	0	0	
Sal. Adj. Control	0/10	0/10	0/10	0/10	0	0	0	0	

CONC. %	TOTAL STRESS #				PERCENT STRESS %				
	24 hrs	48 hrs	72 hrs	96 hrs	24 hrs	48 hrs	72 hrs	96 hrs	
100	0/10	0/10	0/10	0/10	0	0	0	0	
50	0/10	0/10	0/10	0/10	0	0	0	0	
25	0/10	0/10	0/10	0/10	0	0	0	0	
12.5	0/10	0/10	0/10	0/10	0	0	0	0	
6.25	0/10	0/10	0/10	0/10	0	0	0	0	
Control	0/10	0/10	0/10	0/10	0	0	0	0	
Sal. Adj. Control	0/10	0/10	0/10	0/10	0	0	0	0	

96 HR LC₅₀ RESULTS

LC₅₀ Value (%): Non-lethal
Result: Pass
95% Confidence Limits (%): N/A
Statistical Method: N/A

REFERENCE TOXICANT DATA

Performed under laboratory conditions as above, no deviations

Batch: 64 Test Date: Oct. 05 – 09 2020

Reference Substance: Phenol

LC₅₀ Value (mg/L): 17.7
 95% Confidence Limits (mg/L): 12.5 – 25.0
 Historical Mean (mg/L): 15.9
 Warning Limits \pm 2 SD (mg/L): 12.1 – 21.0

COMMENTS

Test meets all conditions for test validity. Final Report – Updated to include latest Reference Toxicant data.

TEST AUTHORIZATION AND VERIFICATION

Analyst(s): K. Marks & J. Fraser

Verified by: S. Elliot

Date: Oct. 09 2020

Signed:



REFERENCES

Tidepool Scientific Software, 2001 - 2014. Comprehensive Environmental Toxicity Information System – CETIS v1.8.7.20
Environment Canada, 2017. Biological Test Method: Reference Method for Determining Acute Lethality Using Threespine Stickleback.
Environment and Climate Change Canada, Ottawa, Ontario, Report EPS 1/RM/10, 2nd Edition December 2017.

Accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA Inc.).

The test included in this report is within the scope of this accreditation.

Results apply to the sample as received. The results reported apply only to the sample tested. Results are based on nominal concentrations.



Your P.O. #: OL-891917
 Site#: 62 48' 01.99" 92 06' 00.05"
 Site Location: MELIADINE
 Your C.O.C. #: na

Attention: Reporting

Agnico-Eagle
 Meliadine
 Meliadine Mine
 Rankin Inlet, NU
 CANADA X0C 0G0

Report Date: 2020/09/30
 Report #: R6351786
 Version: 3 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C006825

Received: 2020/09/22, 10:40

Sample Matrix: Water
 # Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity (1)	1	N/A	2020/09/25	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide (1)	1	N/A	2020/09/29	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry (1)	1	N/A	2020/09/24	CAM SOP-00463	SM 23 4500-Cl E m
Conductivity (1)	1	N/A	2020/09/25	CAM SOP-00414	SM 23 2510 m
Free (WAD) Cyanide (1)	1	N/A	2020/09/24	CAM SOP-00457	OMOE E3015 m
Total Cyanide (1)	1	2020/09/23	2020/09/24	CAM SOP-00457	OMOE E3015 5 m
Dissolved Organic Carbon (DOC) (1, 5)	1	N/A	2020/09/24	CAM SOP-00446	SM 23 5310 B m
Dissolved Oxygen (1)	1	2020/09/23	2020/09/23	CAM SOP-00427	SM 23 4500 O G m
Fluoride (1)	1	2020/09/23	2020/09/25	CAM SOP-00449	SM 23 4500-F C m
Dissolved Mercury (low level) (1)	1	2020/09/29	2020/09/29	CAM SOP-00453	EPA 7470 m
Mercury (low level) (1)	1	2020/09/29	2020/09/29	CAM SOP-00453	EPA 7470 m
Chloride & Sulphate by Auto Colorimetry (2)	1	N/A	2020/09/28	AB SOP-00020 / AB SOP-00018	SM23 4500-CL/SO4-E m
Cyanide (Free) (2)	1	2020/09/25	2020/09/25	CAL SOP-00266	EPA 9016d R0 m
Conductivity @25C (2)	1	N/A	2020/09/26	AB SOP-00005	SM 23 2510 B m
Hardness Total (calculated as CaCO3) (3, 6)	1	N/A	2020/09/25	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3) (3)	1	N/A	2020/09/25	BBY WI-00033	Auto Calc
Elements by ICP-Dissolved-Lab Filtered (2)	1	N/A	2020/09/28	AB SOP-00042	EPA 6010d R5 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.) (3)	1	N/A	2020/09/25	BBY7SOP-00002	EPA 6020B R2 m
Elements by CRC ICPMS (dissolved) (3)	1	N/A	2020/09/25	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total) (3)	1	2020/09/23	2020/09/25	BBY7SOP-00002	EPA 6020B R2 m
Elements by CRC ICPMS (total) (3)	1	2020/09/25	2020/09/25	BBY7SOP-00003/02	EPA 6020B R2 m
pH @25°C (2, 7)	1	N/A	2020/09/26	AB SOP-00005	SM 23 4500-H+B m
Sodium Adsorption Ratio (2)	1	N/A	2020/09/28		Auto Calc
Silica (Reactive) (2)	1	N/A	2020/09/28	AB SOP-00011	EPA370.1 R1978 m
Total Dissolved Solids (Calc. from EC) (2)	1	N/A	2020/09/26		Auto Calc
Total Ammonia-N (1)	1	N/A	2020/09/24	CAM SOP-00441	USGS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1, 8)	1	N/A	2020/09/24	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH (1)	1	2020/09/23	2020/09/25	CAM SOP-00413	SM 4500H+ B m
Orthophosphate (1)	1	N/A	2020/09/24	CAM SOP-00461	EPA 365.1 m



Your P.O. #: OL-891917
 Site#: 62 48' 01.99" 92 06' 00.05"
 Site Location: MELIADINE
 Your C.O.C. #: na

Attention: Reporting

Agnico-Eagle
 Meliadine
 Meliadine Mine
 Rankin Inlet, NU
 CANADA X0C 0G0

Report Date: 2020/09/30
 Report #: R6351786
 Version: 3 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C006825

Received: 2020/09/22, 10:40

Sample Matrix: Water
 # Samples Received: 1

Analyses	Date		Date Analyzed	Laboratory Method	Analytical Method
	Quantity	Extracted			
Radium-226 Low Level (4, 9)	1	N/A	2020/09/29	BQL SOP-00006 BQL SOP-00017 BQL SOP-00032	Alpha Spectrometry
Sulphate by Automated Colourimetry (1)	1	N/A	2020/09/24	CAM SOP-00464	EPA 375.4 m
Calculated Total Dissolved Solids (1)	1	N/A	2020/09/29		Auto Calc
Total Dissolved Solids (1)	1	2020/09/23	2020/09/24	CAM SOP-00428	SM 23 2540C m
Total Kjeldahl Nitrogen in Water (1)	1	2020/09/23	2020/09/25	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (1, 10)	1	N/A	2020/09/24	CAM SOP-00446	SM 23 5310B m
Total Phosphorus (Colourimetric) (1)	1	2020/09/24	2020/09/24	CAM SOP-00407	SM 23 4500 P B H m
Low Level Total Suspended Solids (1)	1	2020/09/23	2020/09/24	CAM SOP-00428	SM 23 2540D m
Turbidity (1)	1	N/A	2020/09/24	CAM SOP-00417	SM 23 2130 B m
Low Level Volatile Suspended Solids (1)	1	2020/09/23	2020/09/24	CAM SOP-00428	SM 23 2540

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs 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 BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs 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.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs 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 BV Labs, unless otherwise agreed in writing. BV Labs 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 BV Labs, 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.



Your P.O. #: OL-891917
Site#: 62 48' 01.99" 92 06' 00.05"
Site Location: MELIADINE
Your C.O.C. #: na

Attention: Reporting

Agnico-Eagle
Meliadine
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2020/09/30
Report #: R6351786
Version: 3 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C006825

Received: 2020/09/22, 10:40

- (1) This test was performed by Bureau Veritas Laboratories Mississauga
- (2) This test was performed by BVLabs Calgary via Mississauga
- (3) This test was performed by BVLabs Burnaby via Mississauga
- (4) This test was performed by Bureau Veritas Laboratories Kitimat
- (5) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
- (6) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (7) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas Laboratories endeavours to analyze samples as soon as possible after receipt.
- (8) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (9) Radium-226 results have not been corrected for blanks.
- (10) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

Encryption Key

Katherine Szozda

Katherine Szozda
Project Manager
30 Sep 2020 16:39:29

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

Katherine Szozda, Project Manager

Email: Katherine.Szozda@bvlabs.com

Phone# (613)274-0573 Ext:7063633

=====

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.



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VERITAS

BV Labs Job #: C006825

Report Date: 2020/09/30

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: RS

SALINITY IN WATER (WATER)

BV Labs ID		NRU877		
Sampling Date		2020/09/16 06:25		
COC Number		na		
	UNITS	MEL-26	RDL	QC Batch
Calculated Parameters				
Sodium Adsorption Ratio	N/A	31	0.10	6970145
Total dissolved solids (calc., EC)	mg/L	28000	10	6970146
ELEMENTS				
Dissolved Calcium (Ca)	mg/L	780 (1)	6.0	6970143
Dissolved Magnesium (Mg)	mg/L	540 (1)	4.0	6970143
Dissolved Potassium (K)	mg/L	190	0.30	6970143
Dissolved Sodium (Na)	mg/L	4600 (1)	10	6970143
Inorganics				
Dissolved Chloride (Cl-)	mg/L	9400 (1)	50	6970141
Conductivity	uS/cm	28000	2.0	6970142
pH	pH	7.55	N/A	6970144
Dissolved Sulphate (SO4)	mg/L	1100 (1)	10	6970141
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable (1) Detection limits raised due to dilution to bring analyte within the calibrated range.				



BV Labs Job #: C006825
Report Date: 2020/09/30

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

DISS. ICPMS METALS FOR FEDERAL INT. GWQG (WATER)

BV Labs ID		NRU877		
Sampling Date		2020/09/16 06:25		
COC Number		na		
	UNITS	MEL-26	RDL	QC Batch
Calculated Parameters				
Dissolved Hardness (CaCO ₃)	mg/L	4090	0.50	6966612
Metals				
Dissolved Aluminum (Al)	ug/L	74	30	6966614
Dissolved Antimony (Sb)	ug/L	<5.0	5.0	6966614
Dissolved Arsenic (As)	ug/L	3.7	1.0	6966614
Dissolved Barium (Ba)	ug/L	154	10	6966614
Dissolved Beryllium (Be)	ug/L	<1.0	1.0	6966614
Dissolved Bismuth (Bi)	ug/L	<10	10	6966614
Dissolved Boron (B)	ug/L	972	500	6966614
Dissolved Cadmium (Cd)	ug/L	<0.10	0.10	6966614
Dissolved Chromium (Cr)	ug/L	<10	10	6966614
Dissolved Cobalt (Co)	ug/L	3.8	2.0	6966614
Dissolved Copper (Cu)	ug/L	3.1	2.0	6966614
Dissolved Iron (Fe)	ug/L	<50	50	6966614
Dissolved Lead (Pb)	ug/L	<2.0	2.0	6966614
Dissolved Lithium (Li)	ug/L	163	20	6966614
Dissolved Manganese (Mn)	ug/L	231	10	6966614
Dissolved Molybdenum (Mo)	ug/L	17	10	6966614
Dissolved Nickel (Ni)	ug/L	27	10	6966614
Dissolved Selenium (Se)	ug/L	1.4	1.0	6966614
Dissolved Silicon (Si)	ug/L	1360	1000	6966614
Dissolved Silver (Ag)	ug/L	<0.20	0.20	6966614
Dissolved Strontium (Sr)	ug/L	16800	10	6966614
Dissolved Thallium (Tl)	ug/L	<0.10	0.10	6966614
Dissolved Tin (Sn)	ug/L	<50	50	6966614
Dissolved Titanium (Ti)	ug/L	<50	50	6966614
Dissolved Uranium (U)	ug/L	2.2	1.0	6966614
Dissolved Vanadium (V)	ug/L	<50	50	6966614
Dissolved Zinc (Zn)	ug/L	<50	50	6966614
Dissolved Zirconium (Zr)	ug/L	<1.0	1.0	6966614
Dissolved Calcium (Ca)	mg/L	755	0.50	6966613
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



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BV Labs Job #: C006825
Report Date: 2020/09/30

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

DISS. ICPMS METALS FOR FEDERAL INT. GWQG (WATER)

BV Labs ID		NRU877		
Sampling Date		2020/09/16 06:25		
COC Number		na		
	UNITS	MEL-26	RDL	QC Batch
Dissolved Magnesium (Mg)	mg/L	535	0.50	6966613
Dissolved Potassium (K)	mg/L	180	0.50	6966613
Dissolved Sodium (Na)	mg/L	4560	0.50	6966613
Dissolved Sulphur (S)	mg/L	406	30	6966613
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BUREAU
VERITAS

BV Labs Job #: C006825
Report Date: 2020/09/30

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

TOTAL ICPMS METALS FOR CCME CEQG FOR SW (WATER)

BV Labs ID		NRU877		
Sampling Date		2020/09/16 06:25		
COC Number		na		
	UNITS	MEL-26	RDL	QC Batch
Metals				
Total Aluminum (Al)	ug/L	948	30	6966611
Total Antimony (Sb)	ug/L	<5.0	5.0	6966611
Total Arsenic (As)	ug/L	6.2	1.0	6966611
Total Barium (Ba)	ug/L	155	10	6966611
Total Beryllium (Be)	ug/L	<1.0	1.0	6966611
Total Bismuth (Bi)	ug/L	<10	10	6966611
Total Boron (B)	ug/L	967	500	6966611
Total Cadmium (Cd)	ug/L	<0.10	0.10	6966611
Total Chromium (Cr)	ug/L	<10	10	6966611
Total Cobalt (Co)	ug/L	4.5	2.0	6966611
Total Copper (Cu)	ug/L	<5.0	5.0	6966611
Total Iron (Fe)	ug/L	1200	100	6966611
Total Lead (Pb)	ug/L	<2.0	2.0	6966611
Total Lithium (Li)	ug/L	167	20	6966611
Total Manganese (Mn)	ug/L	252	10	6966611
Total Molybdenum (Mo)	ug/L	16	10	6966611
Total Nickel (Ni)	ug/L	28	10	6966611
Total Selenium (Se)	ug/L	1.3	1.0	6966611
Total Silicon (Si)	ug/L	2110	1000	6966611
Total Silver (Ag)	ug/L	<0.20	0.20	6966611
Total Strontium (Sr)	ug/L	16900	10	6966611
Total Thallium (Tl)	ug/L	<0.10	0.10	6966611
Total Tin (Sn)	ug/L	<50	50	6966611
Total Titanium (Ti)	ug/L	<50	50	6966611
Total Uranium (U)	ug/L	2.2	1.0	6966611
Total Vanadium (V)	ug/L	<50	50	6966611
Total Zinc (Zn)	ug/L	<50	50	6966611
Total Zirconium (Zr)	ug/L	<1.0	1.0	6966611
Total Calcium (Ca)	ug/L	747000	500	6966610
Total Magnesium (Mg)	ug/L	530000	500	6966610
Total Potassium (K)	ug/L	181000	500	6966610
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BUREAU
VERITAS

BV Labs Job #: C006825
Report Date: 2020/09/30

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

TOTAL ICPMS METALS FOR CCME CEQG FOR SW (WATER)

BV Labs ID		NRU877		
Sampling Date		2020/09/16 06:25		
COC Number		na		
	UNITS	MEL-26	RDL	QC Batch
Total Sodium (Na)	ug/L	4620000	500	6966610
Total Sulphur (S)	ug/L	416000	30000	6966610
Calculated Parameters				
Total Hardness (CaCO3)	ug/L	4050000	500	6966609
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BV Labs Job #: C006825
Report Date: 2020/09/30

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

RESULTS OF ANALYSES OF WATER

BV Labs ID		NRU877			NRU877		
Sampling Date		2020/09/16 06:25			2020/09/16 06:25		
COC Number		na			na		
	UNITS	MEL-26	RDL	QC Batch	MEL-26 Lab-Dup	RDL	QC Batch
Calculated Parameters							
Bicarb. Alkalinity (calc. as CaCO ₃)	mg/L	52	1.0	6959797			
Calculated TDS	mg/L	16000	1.0	6959798			
Carb. Alkalinity (calc. as CaCO ₃)	mg/L	<1.0	1.0	6959797			
Inorganics							
Total Ammonia-N	mg/L	37	0.25	6960783			
Conductivity	umho/cm	29000	1.0	6960365	29000	1.0	6960365
Free Cyanide (CN)	ug/L	26	1.0	6970147			
Total Dissolved Solids	mg/L	18400	20	6961068			
Fluoride (F-)	mg/L	<0.10	0.10	6960357	<0.10	0.10	6960357
Total Kjeldahl Nitrogen (TKN)	mg/L	36	2.0	6960963			
Dissolved Organic Carbon	mg/L	9.6	0.40	6960796			
Total Organic Carbon (TOC)	mg/L	10	0.40	6960967	10	0.40	6960967
Orthophosphate (P)	mg/L	<0.010	0.010	6961292	<0.010	0.010	6961292
Dissolved Oxygen	mg/L	9.37		6960964	9.36		6960964
pH	pH	7.30		6960368	7.35		6960368
Total Phosphorus	mg/L	0.052	0.020	6962155			
Reactive Silica (SiO ₂)	mg/L	2.9 (1)	0.25	6970140			
Total Suspended Solids	mg/L	30	1	6960448	36	1	6960448
Dissolved Sulphate (SO ₄)	mg/L	1100	5.0	6961301	1100	5.0	6961301
Total Cyanide (CN)	mg/L	0.085	0.0050	6961031	0.084	0.0050	6961031
Turbidity	NTU	1.1	0.1	6960450			
Volatile Suspended Solids	mg/L	6	2	6960515	6	2	6960515
WAD Cyanide (Free)	mg/L	0.020	0.0010	6961034	0.019	0.0010	6961034
Alkalinity (Total as CaCO ₃)	mg/L	53	1.0	6960363	51	1.0	6960363
Dissolved Chloride (Cl ⁻)	mg/L	8900	100	6961284	8400	100	6961284
Nitrite (N)	mg/L	1.14	0.010	6960340			
Nitrate (N)	mg/L	50.1	0.50	6960340			
Nitrate + Nitrite (N)	mg/L	51.2	0.50	6960340			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate (1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.							



BUREAU
VERITAS

BV Labs Job #: C006825
Report Date: 2020/09/30

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

RESULTS OF ANALYSES OF WATER

BV Labs ID		NRU877			NRU877		
Sampling Date		2020/09/16 06:25			2020/09/16 06:25		
COC Number		na			na		
	UNITS	MEL-26	RDL	QC Batch	MEL-26 Lab-Dup	RDL	QC Batch
RADIONUCLIDE							
Radium-226	Bq/L	0.29	0.0050	6959502			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							



BUREAU
VERITAS

BV Labs Job #: C006825

Report Date: 2020/09/30

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: RS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		NRU877		
Sampling Date		2020/09/16 06:25		
COC Number		na		
	UNITS	MEL-26	RDL	QC Batch
Metals				
Mercury (Hg)	mg/L	<0.00001	0.00001	6970585
Dissolved Mercury (Hg)	mg/L	<0.00001	0.00001	6970610
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BV Labs Job #: C006825
Report Date: 2020/09/30

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

TEST SUMMARY

BV Labs ID: NRU877
Sample ID: MEL-26
Matrix: Water

Collected: 2020/09/16
Shipped:
Received: 2020/09/22

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	6960363	N/A	2020/09/25	Yogesh Patel
Carbonate, Bicarbonate and Hydroxide	CALC	6959797	N/A	2020/09/29	Automated Statchk
Chloride by Automated Colourimetry	KONE	6961284	N/A	2020/09/24	Deonarine Ramnarine
Conductivity	AT	6960365	N/A	2020/09/25	Yogesh Patel
Free (WAD) Cyanide	SKAL/CN	6961034	N/A	2020/09/24	Gnana Thomas
Total Cyanide	SKAL/CN	6961031	2020/09/23	2020/09/24	Gnana Thomas
Dissolved Organic Carbon (DOC)	TOCV/NDIR	6960796	N/A	2020/09/24	Nimarta Singh
Dissolved Oxygen	DO	6960964	2020/09/23	2020/09/23	Navjot Kaur Gill
Fluoride	ISE	6960357	2020/09/23	2020/09/25	Yogesh Patel
Dissolved Mercury (low level)	CV/AA	6970610	2020/09/29	2020/09/29	Medhat Nasr
Mercury (low level)	CV/AA	6970585	2020/09/29	2020/09/29	Medhat Nasr
Chloride & Sulphate by Auto Colorimetry	KONE	6970141	N/A	2020/09/28	Serena Tian
Cyanide (Free)	SPEC	6970147	2020/09/25	2020/09/25	Taylor Mullings
Conductivity @25C	COND	6970142	N/A	2020/09/26	Tracy (Jing) Ling
Hardness Total (calculated as CaCO ₃)	CALC	6966609	N/A	2020/09/25	Automated Statchk
Hardness (calculated as CaCO ₃)	CALC	6966612	N/A	2020/09/25	Automated Statchk
Elements by ICP-Dissolved-Lab Filtered	ICP	6970143	N/A	2020/09/28	Mary Anne Dela Cruz
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	ICP	6966613	N/A	2020/09/25	Automated Statchk
Elements by CRC ICPMS (dissolved)	ICP/MS	6966614	N/A	2020/09/25	Andrew An
Na, K, Ca, Mg, S by CRC ICPMS (total)	ICP	6966610	2020/09/25	2020/09/25	Automated Statchk
Elements by CRC ICPMS (total)	ICP/MS	6966611	2020/09/25	2020/09/25	Andrew An
pH @25°C	AT/PH	6970144	N/A	2020/09/26	Tracy (Jing) Ling
Sodium Adsorption Ratio	CALC	6970145	N/A	2020/09/28	Automated Statchk
Silica (Reactive)	KONE	6970140	N/A	2020/09/28	Marjolen Busslinger
Total Dissolved Solids (Calc. from EC)	CALC	6970146	N/A	2020/09/26	Automated Statchk
Total Ammonia-N	LACH/NH ₄	6960783	N/A	2020/09/24	Alina Dobreanu
Nitrate (NO ₃) and Nitrite (NO ₂) in Water	LACH	6960340	N/A	2020/09/24	Amanpreet Sappal
pH	AT	6960368	2020/09/23	2020/09/25	Yogesh Patel
Orthophosphate	KONE	6961292	N/A	2020/09/24	Alina Dobreanu
Radium-226 Low Level	AS	6959502	N/A	2020/09/29	Blake Barber
Sulphate by Automated Colourimetry	KONE	6961301	N/A	2020/09/24	Deonarine Ramnarine
Calculated Total Dissolved Solids	CALC	6959798	N/A	2020/09/29	Automated Statchk
Total Dissolved Solids	BAL	6961068	2020/09/23	2020/09/24	Shivani Desai
Total Kjeldahl Nitrogen in Water	SKAL	6960963	2020/09/23	2020/09/25	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	6960967	N/A	2020/09/24	Nimarta Singh
Total Phosphorus (Colourimetric)	LACH/P	6962155	2020/09/24	2020/09/24	Shivani Shivani
Low Level Total Suspended Solids	BAL	6960448	2020/09/23	2020/09/24	Margesh Majmunda
Turbidity	AT	6960450	N/A	2020/09/24	Viorica Rotaru
Low Level Volatile Suspended Solids	BAL	6960515	2020/09/23	2020/09/24	Margesh Majmunda



BUREAU
VERITAS

BV Labs Job #: C006825

Report Date: 2020/09/30

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: RS

TEST SUMMARY

BV Labs ID: NRU877 Dup

Sample ID: MEL-26

Matrix: Water

Collected: 2020/09/16

Shipped:

Received: 2020/09/22

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	6960363	N/A	2020/09/25	Yogesh Patel
Chloride by Automated Colourimetry	KONE	6961284	N/A	2020/09/24	Deonarine Ramnarine
Conductivity	AT	6960365	N/A	2020/09/25	Yogesh Patel
Free (WAD) Cyanide	SKAL/CN	6961034	N/A	2020/09/24	Gnana Thomas
Total Cyanide	SKAL/CN	6961031	2020/09/23	2020/09/24	Gnana Thomas
Dissolved Oxygen	DO	6960964	2020/09/23	2020/09/23	Navjot Kaur Gill
Fluoride	ISE	6960357	2020/09/23	2020/09/25	Yogesh Patel
pH	AT	6960368	2020/09/23	2020/09/25	Yogesh Patel
Orthophosphate	KONE	6961292	N/A	2020/09/24	Alina Dobreanu
Sulphate by Automated Colourimetry	KONE	6961301	N/A	2020/09/24	Deonarine Ramnarine
Total Organic Carbon (TOC)	TOCV/NDIR	6960967	N/A	2020/09/24	Nimarta Singh
Low Level Total Suspended Solids	BAL	6960448	2020/09/23	2020/09/24	Margesh Majmunda
Low Level Volatile Suspended Solids	BAL	6960515	2020/09/23	2020/09/24	Margesh Majmunda



GENERAL COMMENTS

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

Package 1	16.0°C
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Sample NRU877 [MEL-26] : As per clients request double washes done than regular washes .

TKN < Ammonia: Both values fall within the method uncertainty for duplicates and are likely equivalent. Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results

Sample was not submitted in an appropriate container for free cyanide analysis. Results may have a high bias due to decomposition of hexacyanoferrate and some other metal-cyanide complexes to free cyanide

Sample pH <12, preservation incomplete. Due to volatility of analyte, a low bias in the results is likely.

DISS. ICPMS METALS FOR FEDERAL INT. GWQG (WATER)

Sample NRU877 [MEL-26] Elements by CRC ICPMS (dissolved): RDL raised due to concentration over linear range, sample dilution required.

TOTAL ICPMS METALS FOR CCME CEQG FOR SW (WATER)

Sample NRU877 [MEL-26] Elements by CRC ICPMS (total): RDL raised due to concentration over linear range, sample dilution required.

Results relate only to the items tested.

BUREAU
VERITASBV Labs Job #: C006825
Report Date: 2020/09/30

QUALITY ASSURANCE REPORT

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6959502	Radium-226	2020/09/29			102	85 - 115	<0.0050	Bq/L	NC	N/A		
6960340	Nitrate (N)	2020/09/24	NC	80 - 120	99	80 - 120	<0.10	mg/L	1.1	20		
6960340	Nitrite (N)	2020/09/24	93	80 - 120	102	80 - 120	<0.010	mg/L	0	20		
6960357	Fluoride (F-)	2020/09/25	71 (1)	80 - 120	105	80 - 120	<0.10	mg/L	NC	20		
6960363	Alkalinity (Total as CaCO3)	2020/09/25			95	85 - 115	<1.0	mg/L	2.6	20		
6960365	Conductivity	2020/09/25			101	85 - 115	<1.0	umho/cm	0	25		
6960368	pH	2020/09/25			102	98 - 103			0.76	N/A		
6960448	Total Suspended Solids	2020/09/24					<1	mg/L	17	25	101	85 - 115
6960450	Turbidity	2020/09/24			110	85 - 115	<0.1	NTU	NC	20		
6960515	Volatile Suspended Solids	2020/09/24					<1	mg/L	0	25		
6960783	Total Ammonia-N	2020/09/24	97	75 - 125	100	80 - 120	<0.050	mg/L	4.8	20		
6960796	Dissolved Organic Carbon	2020/09/24	95	80 - 120	98	80 - 120	<0.40	mg/L	1.3	20		
6960963	Total Kjeldahl Nitrogen (TKN)	2020/09/25	94	80 - 120	101	80 - 120	<0.10	mg/L	8.6	20	102	80 - 120
6960967	Total Organic Carbon (TOC)	2020/09/24	95	80 - 120	97	80 - 120	<0.40	mg/L	0.59	20		
6961031	Total Cyanide (CN)	2020/09/24	94	80 - 120	100	80 - 120	<0.0050	mg/L	1.8	20		
6961034	WAD Cyanide (Free)	2020/09/24	96	80 - 120	98	80 - 120	<0.0010	mg/L	2.5	20		
6961068	Total Dissolved Solids	2020/09/24					<10	mg/L	2.7	25	97	90 - 110
6961284	Dissolved Chloride (Cl-)	2020/09/24	NC	80 - 120	105	80 - 120	<1.0	mg/L	5.4	20		
6961292	Orthophosphate (P)	2020/09/24	105	75 - 125	100	80 - 120	<0.010	mg/L	NC	25		
6961301	Dissolved Sulphate (SO4)	2020/09/24	NC	75 - 125	102	80 - 120	<1.0	mg/L	2.9	20		
6962155	Total Phosphorus	2020/09/24	96	80 - 120	97	80 - 120	<0.020	mg/L	4.4	20	94	80 - 120
6966611	Total Aluminum (Al)	2020/09/25	103	80 - 120	104	80 - 120	<3.0	ug/L				
6966611	Total Antimony (Sb)	2020/09/25	104	80 - 120	103	80 - 120	<0.50	ug/L				
6966611	Total Arsenic (As)	2020/09/25	103	80 - 120	99	80 - 120	<0.10	ug/L				
6966611	Total Barium (Ba)	2020/09/25	NC	80 - 120	101	80 - 120	<1.0	ug/L				
6966611	Total Beryllium (Be)	2020/09/25	101	80 - 120	102	80 - 120	<0.10	ug/L				
6966611	Total Bismuth (Bi)	2020/09/25	95	80 - 120	98	80 - 120	<1.0	ug/L				
6966611	Total Boron (B)	2020/09/25	102	80 - 120	103	80 - 120	<50	ug/L				
6966611	Total Cadmium (Cd)	2020/09/25	102	80 - 120	103	80 - 120	<0.010	ug/L				
6966611	Total Chromium (Cr)	2020/09/25	97	80 - 120	99	80 - 120	<1.0	ug/L				
6966611	Total Cobalt (Co)	2020/09/25	97	80 - 120	100	80 - 120	<0.20	ug/L				

BUREAU
VERITASBV Labs Job #: C006825
Report Date: 2020/09/30

QUALITY ASSURANCE REPORT(CONT'D)

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6966611	Total Copper (Cu)	2020/09/25	93	80 - 120	98	80 - 120	<0.50	ug/L				
6966611	Total Iron (Fe)	2020/09/25	102	80 - 120	99	80 - 120	<10	ug/L				
6966611	Total Lead (Pb)	2020/09/25	102	80 - 120	101	80 - 120	<0.20	ug/L				
6966611	Total Lithium (Li)	2020/09/25	101	80 - 120	104	80 - 120	<2.0	ug/L				
6966611	Total Manganese (Mn)	2020/09/25	100	80 - 120	103	80 - 120	<1.0	ug/L				
6966611	Total Molybdenum (Mo)	2020/09/25	110	80 - 120	104	80 - 120	<1.0	ug/L				
6966611	Total Nickel (Ni)	2020/09/25	96	80 - 120	100	80 - 120	<1.0	ug/L				
6966611	Total Selenium (Se)	2020/09/25	103	80 - 120	98	80 - 120	<0.10	ug/L				
6966611	Total Silicon (Si)	2020/09/25	NC	80 - 120	105	80 - 120	<100	ug/L				
6966611	Total Silver (Ag)	2020/09/25	99	80 - 120	98	80 - 120	<0.020	ug/L				
6966611	Total Strontium (Sr)	2020/09/25	NC	80 - 120	99	80 - 120	<1.0	ug/L				
6966611	Total Thallium (Tl)	2020/09/25	101	80 - 120	100	80 - 120	<0.010	ug/L				
6966611	Total Tin (Sn)	2020/09/25	102	80 - 120	101	80 - 120	<5.0	ug/L				
6966611	Total Titanium (Ti)	2020/09/25	104	80 - 120	103	80 - 120	<5.0	ug/L				
6966611	Total Uranium (U)	2020/09/25	108	80 - 120	105	80 - 120	<0.10	ug/L				
6966611	Total Vanadium (V)	2020/09/25	102	80 - 120	100	80 - 120	<5.0	ug/L				
6966611	Total Zinc (Zn)	2020/09/25	99	80 - 120	103	80 - 120	<5.0	ug/L				
6966611	Total Zirconium (Zr)	2020/09/25	110	80 - 120	103	80 - 120	<0.10	ug/L				
6966614	Dissolved Aluminum (Al)	2020/09/25	103	80 - 120	105	80 - 120	<3.0	ug/L				
6966614	Dissolved Antimony (Sb)	2020/09/25	107	80 - 120	105	80 - 120	<0.50	ug/L				
6966614	Dissolved Arsenic (As)	2020/09/25	102	80 - 120	101	80 - 120	<0.10	ug/L				
6966614	Dissolved Barium (Ba)	2020/09/25	103	80 - 120	101	80 - 120	<1.0	ug/L				
6966614	Dissolved Beryllium (Be)	2020/09/25	104	80 - 120	102	80 - 120	<0.10	ug/L				
6966614	Dissolved Bismuth (Bi)	2020/09/25	99	80 - 120	101	80 - 120	<1.0	ug/L				
6966614	Dissolved Boron (B)	2020/09/25	104	80 - 120	106	80 - 120	<50	ug/L				
6966614	Dissolved Cadmium (Cd)	2020/09/25	105	80 - 120	105	80 - 120	<0.010	ug/L				
6966614	Dissolved Chromium (Cr)	2020/09/25	101	80 - 120	102	80 - 120	<1.0	ug/L				
6966614	Dissolved Cobalt (Co)	2020/09/25	101	80 - 120	102	80 - 120	<0.20	ug/L				
6966614	Dissolved Copper (Cu)	2020/09/25	98	80 - 120	102	80 - 120	<0.20	ug/L				
6966614	Dissolved Iron (Fe)	2020/09/25	103	80 - 120	103	80 - 120	<5.0	ug/L				
6966614	Dissolved Lead (Pb)	2020/09/25	104	80 - 120	104	80 - 120	<0.20	ug/L				
6966614	Dissolved Lithium (Li)	2020/09/25	103	80 - 120	102	80 - 120	<2.0	ug/L				



BUREAU
VERITAS

BV Labs Job #: C006825
Report Date: 2020/09/30

QUALITY ASSURANCE REPORT(CONT'D)

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6966614	Dissolved Manganese (Mn)	2020/09/25	103	80 - 120	105	80 - 120	<1.0	ug/L				
6966614	Dissolved Molybdenum (Mo)	2020/09/25	107	80 - 120	106	80 - 120	<1.0	ug/L				
6966614	Dissolved Nickel (Ni)	2020/09/25	101	80 - 120	104	80 - 120	<1.0	ug/L				
6966614	Dissolved Selenium (Se)	2020/09/25	101	80 - 120	98	80 - 120	<0.10	ug/L				
6966614	Dissolved Silicon (Si)	2020/09/25	104	80 - 120	103	80 - 120	<100	ug/L				
6966614	Dissolved Silver (Ag)	2020/09/25	102	80 - 120	102	80 - 120	<0.020	ug/L				
6966614	Dissolved Strontium (Sr)	2020/09/25	NC	80 - 120	101	80 - 120	<1.0	ug/L				
6966614	Dissolved Thallium (Tl)	2020/09/25	101	80 - 120	102	80 - 120	<0.010	ug/L				
6966614	Dissolved Tin (Sn)	2020/09/25	103	80 - 120	102	80 - 120	<5.0	ug/L				
6966614	Dissolved Titanium (Ti)	2020/09/25	104	80 - 120	105	80 - 120	<5.0	ug/L				
6966614	Dissolved Uranium (U)	2020/09/25	109	80 - 120	106	80 - 120	<0.10	ug/L				
6966614	Dissolved Vanadium (V)	2020/09/25	102	80 - 120	103	80 - 120	<5.0	ug/L				
6966614	Dissolved Zinc (Zn)	2020/09/25	106	80 - 120	108	80 - 120	<5.0	ug/L				
6966614	Dissolved Zirconium (Zr)	2020/09/25	106	80 - 120	106	80 - 120	<0.10	ug/L				
6970140	Reactive Silica (SiO ₂)	2020/09/28	115	80 - 120	110	80 - 120	<0.050	mg/L				
6970141	Dissolved Chloride (Cl ⁻)	2020/09/28	106	80 - 120	104	80 - 120	<1.0	mg/L				
6970141	Dissolved Sulphate (SO ₄)	2020/09/28	111	80 - 120	104	80 - 120	<1.0	mg/L				
6970142	Conductivity	2020/09/26			103	90 - 110	<2.0	uS/cm				
6970143	Dissolved Calcium (Ca)	2020/09/28	92	80 - 120	101	80 - 120	<0.30	mg/L				
6970143	Dissolved Magnesium (Mg)	2020/09/28	95	80 - 120	99	80 - 120	<0.20	mg/L				
6970143	Dissolved Potassium (K)	2020/09/28	102	80 - 120	104	80 - 120	<0.30	mg/L				
6970143	Dissolved Sodium (Na)	2020/09/28	94	80 - 120	96	80 - 120	<0.50	mg/L				
6970144	pH	2020/09/26			100	97 - 103						
6970147	Free Cyanide (CN)	2020/09/25	91	80 - 120	99	80 - 120	<1.0	ug/L				
6970585	Mercury (Hg)	2020/09/29	97	75 - 125	102	80 - 120	<0.00001	mg/L	NC	20		



BUREAU
VERITAS

BV Labs Job #: C006825
Report Date: 2020/09/30

QUALITY ASSURANCE REPORT(CONT'D)

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6970610	Dissolved Mercury (Hg)	2020/09/29	101	75 - 125	102	80 - 120	<0.00001	mg/L	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.

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 $\leq 2 \times \text{RDL}$).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



BUREAU
VERITAS

BV Labs Job #: C006825

Report Date: 2020/09/30

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: RS

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Anastassia Hamanov, Scientific Specialist

Brad Newman, B.Sc., C.Chem., Scientific Service Specialist

David Huang, BBY Scientific Specialist

Harry (Peng) Liang, Senior Analyst



Steven Simpson, Lab Director

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 #: C006825

Report Date: 2020/09/30

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: RS

Exceedance Summary Table – Metal Mining Effluent Reg
Result Exceedances

Sample ID	BV Labs ID	Parameter	Criteria	Result	DL	UNITS
No Exceedances						
The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.						



Your P.O. #: OL-891917
 Site#: 62 48' 10.99" 92 06' 00.05"
 Site Location: MELIADINE
 Your C.O.C. #: na

Attention: Reporting

Agnico-Eagle
 Meliadine
 Meliadine Mine
 Rankin Inlet, NU
 CANADA X0C 0G0

Report Date: 2020/10/07
 Report #: R6360913
 Version: 5 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: COP2827

Received: 2020/09/28, 11:10

Sample Matrix: Water
 # Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity (1)	1	N/A	2020/09/30	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide (1)	1	N/A	2020/10/07	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry (1)	1	N/A	2020/10/01	CAM SOP-00463	SM 23 4500-Cl E m
Conductivity (1)	1	N/A	2020/09/30	CAM SOP-00414	SM 23 2510 m
Free (WAD) Cyanide (1)	1	N/A	2020/09/29	CAM SOP-00457	OMOE E3015 m
Total Cyanide (1)	1	2020/09/29	2020/09/29	CAM SOP-00457	OMOE E3015 5 m
Dissolved Organic Carbon (DOC) (1, 5)	1	N/A	2020/10/01	CAM SOP-00446	SM 23 5310 B m
Dissolved Oxygen (1)	1	2020/09/29	2020/09/29	CAM SOP-00427	SM 23 4500 O G m
Fluoride (1)	1	2020/09/29	2020/09/30	CAM SOP-00449	SM 23 4500-F C m
Dissolved Mercury (low level) (1)	1	2020/10/02	2020/10/02	CAM SOP-00453	EPA 7470 m
Mercury (low level) (1)	1	2020/10/02	2020/10/02	CAM SOP-00453	EPA 7470 m
Chloride & Sulphate by Auto Colorimetry (2)	1	N/A	2020/10/01	AB SOP-00020 / AB SOP-00018	SM23 4500-CL/SO4-E m
Cyanide (Free) (2)	1	2020/10/01	2020/10/01	CAL SOP-00266	EPA 9016d R0 m
Conductivity @25C (2)	1	N/A	2020/10/01	AB SOP-00005	SM 23 2510 B m
Hardness Total (calculated as CaCO3) (3, 6)	1	N/A	2020/10/01	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3) (3)	1	N/A	2020/10/06	BBY WI-00033	Auto Calc
Elements by ICP-Dissolved-Lab Filtered (2)	1	N/A	2020/10/01	AB SOP-00042	EPA 6010d R5 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.) (3)	1	N/A	2020/10/06	BBY7SOP-00002	EPA 6020B R2 m
Elements by CRC ICPMS (dissolved) (3)	1	N/A	2020/10/06	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total) (3)	1	2020/09/29	2020/10/01	BBY7SOP-00002	EPA 6020B R2 m
Elements by CRC ICPMS (total) (3)	1	2020/10/01	2020/10/01	BBY7SOP-00003/02	EPA 6020B R2 m
pH @25°C (2, 7)	1	N/A	2020/10/01	AB SOP-00005	SM 23 4500-H+B m
Sodium Adsorption Ratio (2)	1	N/A	2020/10/01		Auto Calc
Silica (Reactive) (2)	1	N/A	2020/10/01	AB SOP-00011	EPA370.1 R1978 m
Total Dissolved Solids (Calc. from EC) (2)	1	N/A	2020/10/01		Auto Calc
Total Ammonia-N (1)	1	N/A	2020/09/30	CAM SOP-00441	USGS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1, 8)	1	N/A	2020/10/01	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH (1)	1	2020/09/29	2020/09/30	CAM SOP-00413	SM 4500H+ B m
Orthophosphate (1)	1	N/A	2020/10/02	CAM SOP-00461	EPA 365.1 m



Your P.O. #: OL-891917
 Site#: 62 48' 10.99" 92 06' 00.05"
 Site Location: MELIADINE
 Your C.O.C. #: na

Attention: Reporting

Agnico-Eagle
 Meliadine
 Meliadine Mine
 Rankin Inlet, NU
 CANADA X0C 0G0

Report Date: 2020/10/07
 Report #: R6360913
 Version: 5 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: COP2827

Received: 2020/09/28, 11:10

Sample Matrix: Water
 # Samples Received: 1

Analyses	Date		Date Analyzed	Laboratory Method	Analytical Method
	Quantity	Extracted			
Radium-226 Low Level (4, 9)	1	N/A	2020/10/05	BQL SOP-00006 BQL SOP-00017 BQL SOP-00032	Alpha Spectrometry
Sulphate by Automated Colourimetry (1)	1	N/A	2020/10/01	CAM SOP-00464	EPA 375.4 m
Calculated Total Dissolved Solids (1)	1	N/A	2020/10/07		Auto Calc
Total Dissolved Solids (1)	1	2020/09/29	2020/09/30	CAM SOP-00428	SM 23 2540C m
Total Kjeldahl Nitrogen in Water (1)	1	2020/09/29	2020/09/30	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (1, 10)	1	N/A	2020/09/30	CAM SOP-00446	SM 23 5310B m
Total Phosphorus (Colourimetric) (1)	1	2020/09/29	2020/09/30	CAM SOP-00407	SM 23 4500 P B H m
Low Level Total Suspended Solids (1)	1	2020/09/29	2020/09/30	CAM SOP-00428	SM 23 2540D m
Turbidity (1)	1	N/A	2020/09/30	CAM SOP-00417	SM 23 2130 B m
Low Level Volatile Suspended Solids (1)	1	2020/09/29	2020/09/30	CAM SOP-00428	SM 23 2540

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs 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 BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs 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.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs 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 BV Labs, unless otherwise agreed in writing. BV Labs 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 BV Labs, 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.



Your P.O. #: OL-891917
Site#: 62 48' 10.99" 92 06' 00.05"
Site Location: MELIADINE
Your C.O.C. #: na

Attention: Reporting

Agnico-Eagle
Meliadine
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2020/10/07
Report #: R6360913
Version: 5 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: COP2827

Received: 2020/09/28, 11:10

- (1) This test was performed by Bureau Veritas Laboratories Mississauga
- (2) This test was performed by BVLabs Calgary via Mississauga
- (3) This test was performed by BVLabs Burnaby via Mississauga
- (4) This test was performed by Bureau Veritas Laboratories Kitimat
- (5) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
- (6) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (7) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas Laboratories endeavours to analyze samples as soon as possible after receipt.
- (8) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (9) Radium-226 results have not been corrected for blanks.
- (10) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

Encryption Key

Katherine Szozda
Project Manager
07 Oct 2020 12:23:09

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

Katherine Szozda, Project Manager

Email: Katherine.Szozda@bvlabs.com

Phone# (613)274-0573 Ext:7063633

=====

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 #: COP2827

Report Date: 2020/10/07

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: RS

SALINITY IN WATER (WATER)

BV Labs ID		NTD138		
Sampling Date		2020/09/23 15:46		
COC Number		na		
	UNITS	MEL-26	RDL	QC Batch
Calculated Parameters				
Sodium Adsorption Ratio	N/A	31	0.10	6985711
Total dissolved solids (calc., EC)	mg/L	27000	10	6985712
ELEMENTS				
Dissolved Calcium (Ca)	mg/L	750 (1)	3.0	6980514
Dissolved Magnesium (Mg)	mg/L	490	0.20	6980514
Dissolved Potassium (K)	mg/L	180	0.30	6980514
Dissolved Sodium (Na)	mg/L	4400 (1)	5.0	6980514
Inorganics				
Dissolved Chloride (Cl-)	mg/L	9200 (1)	50	6985708
Conductivity	uS/cm	27000	2.0	6985709
pH	pH	7.57	N/A	6985710
Dissolved Sulphate (SO4)	mg/L	1100 (1)	10	6985708
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable (1) Detection limits raised due to dilution to bring analyte within the calibrated range.				



BUREAU
VERITAS

BV Labs Job #: COP2827

Report Date: 2020/10/07

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: RS

DISS. ICPMS METALS FOR FEDERAL INT. GWQG (WATER)

BV Labs ID		NTD138		
Sampling Date		2020/09/23 15:46		
COC Number		na		
	UNITS	MEL-26	RDL	QC Batch
Calculated Parameters				
Dissolved Hardness (CaCO ₃)	mg/L	4000	0.50	6986715
Metals				
Dissolved Aluminum (Al)	ug/L	153	60	6986717
Dissolved Antimony (Sb)	ug/L	<10	10	6986717
Dissolved Arsenic (As)	ug/L	5.9	2.0	6986717
Dissolved Barium (Ba)	ug/L	146	20	6986717
Dissolved Beryllium (Be)	ug/L	<2.0	2.0	6986717
Dissolved Bismuth (Bi)	ug/L	<20	20	6986717
Dissolved Boron (B)	ug/L	1120	1000	6986717
Dissolved Cadmium (Cd)	ug/L	<0.20	0.20	6986717
Dissolved Chromium (Cr)	ug/L	<20	20	6986717
Dissolved Cobalt (Co)	ug/L	4.5	4.0	6986717
Dissolved Copper (Cu)	ug/L	4.2	4.0	6986717
Dissolved Iron (Fe)	ug/L	<100	100	6986717
Dissolved Lead (Pb)	ug/L	<4.0	4.0	6986717
Dissolved Lithium (Li)	ug/L	163	40	6986717
Dissolved Manganese (Mn)	ug/L	235	20	6986717
Dissolved Molybdenum (Mo)	ug/L	27	20	6986717
Dissolved Nickel (Ni)	ug/L	30	20	6986717
Dissolved Selenium (Se)	ug/L	2.0	2.0	6986717
Dissolved Silicon (Si)	ug/L	<2000	2000	6986717
Dissolved Silver (Ag)	ug/L	<0.40	0.40	6986717
Dissolved Strontium (Sr)	ug/L	15500	20	6986717
Dissolved Thallium (Tl)	ug/L	<0.20	0.20	6986717
Dissolved Tin (Sn)	ug/L	<100	100	6986717
Dissolved Titanium (Ti)	ug/L	<100	100	6986717
Dissolved Uranium (U)	ug/L	2.3	2.0	6986717
Dissolved Vanadium (V)	ug/L	<100	100	6986717
Dissolved Zinc (Zn)	ug/L	<100	100	6986717
Dissolved Zirconium (Zr)	ug/L	<2.0	2.0	6986717
Dissolved Calcium (Ca)	mg/L	729	1.0	6986716
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



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VERITAS

BV Labs Job #: COP2827
Report Date: 2020/10/07

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

DISS. ICPMS METALS FOR FEDERAL INT. GWQG (WATER)

BV Labs ID		NTD138		
Sampling Date		2020/09/23 15:46		
COC Number		na		
	UNITS	MEL-26	RDL	QC Batch
Dissolved Magnesium (Mg)	mg/L	529	1.0	6986716
Dissolved Potassium (K)	mg/L	181	1.0	6986716
Dissolved Sodium (Na)	mg/L	4530	1.0	6986716
Dissolved Sulphur (S)	mg/L	395	60	6986716
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



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VERITAS

BV Labs Job #: COP2827
Report Date: 2020/10/07

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

TOTAL ICPMS METALS FOR CCME CEQG FOR SW (WATER)

BV Labs ID		NTD138		
Sampling Date		2020/09/23 15:46		
COC Number		na		
	UNITS	MEL-26	RDL	QC Batch
Metals				
Total Aluminum (Al)	ug/L	329	60	6978055
Total Antimony (Sb)	ug/L	<10	10	6978055
Total Arsenic (As)	ug/L	5.6	2.0	6978055
Total Barium (Ba)	ug/L	145	20	6978055
Total Beryllium (Be)	ug/L	<2.0	2.0	6978055
Total Bismuth (Bi)	ug/L	<20	20	6978055
Total Boron (B)	ug/L	1020	1000	6978055
Total Cadmium (Cd)	ug/L	<0.20	0.20	6978055
Total Chromium (Cr)	ug/L	<20	20	6978055
Total Cobalt (Co)	ug/L	<4.0	4.0	6978055
Total Copper (Cu)	ug/L	<10	10	6978055
Total Iron (Fe)	ug/L	<200	200	6978055
Total Lead (Pb)	ug/L	<4.0	4.0	6978055
Total Lithium (Li)	ug/L	160	40	6978055
Total Manganese (Mn)	ug/L	212	20	6978055
Total Molybdenum (Mo)	ug/L	<20	20	6978055
Total Nickel (Ni)	ug/L	27	20	6978055
Total Selenium (Se)	ug/L	<2.0	2.0	6978055
Total Silicon (Si)	ug/L	<2000	2000	6978055
Total Silver (Ag)	ug/L	<0.40	0.40	6978055
Total Strontium (Sr)	ug/L	15600	20	6978055
Total Thallium (Tl)	ug/L	<0.20	0.20	6978055
Total Tin (Sn)	ug/L	<100	100	6978055
Total Titanium (Ti)	ug/L	<100	100	6978055
Total Uranium (U)	ug/L	2.1	2.0	6978055
Total Vanadium (V)	ug/L	<100	100	6978055
Total Zinc (Zn)	ug/L	<100	100	6978055
Total Zirconium (Zr)	ug/L	<2.0	2.0	6978055
Total Calcium (Ca)	ug/L	696000	1000	6978054
Total Magnesium (Mg)	ug/L	498000	1000	6978054
Total Potassium (K)	ug/L	178000	1000	6978054
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



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VERITAS

BV Labs Job #: COP2827
Report Date: 2020/10/07

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

TOTAL ICPMS METALS FOR CCME CEQG FOR SW (WATER)

BV Labs ID		NTD138		
Sampling Date		2020/09/23 15:46		
COC Number		na		
	UNITS	MEL-26	RDL	QC Batch
Total Sodium (Na)	ug/L	4360000	1000	6978054
Total Sulphur (S)	ug/L	396000	60000	6978054
Calculated Parameters				
Total Hardness (CaCO3)	ug/L	3790000	500	6986714
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BUREAU
VERITAS

BV Labs Job #: COP2827

Report Date: 2020/10/07

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: RS

RESULTS OF ANALYSES OF WATER

BV Labs ID		NTD138			NTD138		
Sampling Date		2020/09/23 15:46			2020/09/23 15:46		
COC Number		na			na		
	UNITS	MEL-26	RDL	QC Batch	MEL-26 Lab-Dup	RDL	QC Batch
Calculated Parameters							
Bicarb. Alkalinity (calc. as CaCO ₃)	mg/L	51	1.0	6970845			
Calculated TDS	mg/L	16000	1.0	6970846			
Carb. Alkalinity (calc. as CaCO ₃)	mg/L	<1.0	1.0	6970845			
Inorganics							
Total Ammonia-N	mg/L	35	0.25	6971152			
Conductivity	umho/cm	27000	1.0	6972045			
Free Cyanide (CN)	ug/L	20 (1)	1.0	6985713			
Total Dissolved Solids	mg/L	16900	20	6972296			
Fluoride (F-)	mg/L	<0.10	0.10	6972023			
Total Kjeldahl Nitrogen (TKN)	mg/L	38	2.0	6971161			
Dissolved Organic Carbon	mg/L	11	0.40	6972514			
Total Organic Carbon (TOC)	mg/L	10	0.40	6971182	11	0.40	6971182
Orthophosphate (P)	mg/L	<0.010	0.010	6971897			
Dissolved Oxygen	mg/L	9.15		6972758	9.18		6972758
pH	pH	7.49		6972085			
Total Phosphorus	mg/L	0.083	0.020	6971227			
Reactive Silica (SiO ₂)	mg/L	2.7 (2)	0.50	6985707	2.8	0.50	6985707
Total Suspended Solids	mg/L	4	1	6967427			
Dissolved Sulphate (SO ₄)	mg/L	1000	5.0	6971894			
Total Cyanide (CN)	mg/L	0.076	0.0050	6969935			
Turbidity	NTU	0.5	0.1	6971821			
Volatile Suspended Solids	mg/L	3	1	6971505			
WAD Cyanide (Free)	mg/L	0.0046	0.0010	6971366	0.0051	0.0010	6971366
Alkalinity (Total as CaCO ₃)	mg/L	52	1.0	6972036			
Dissolved Chloride (Cl-)	mg/L	9000	120	6971884			
Nitrite (N)	mg/L	1.10	0.010	6972125			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate (1) See general comments for notes regarding CNFREE-W (2) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly. Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results.							



BUREAU
VERITAS

BV Labs Job #: COP2827
Report Date: 2020/10/07

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

RESULTS OF ANALYSES OF WATER

BV Labs ID		NTD138			NTD138		
Sampling Date		2020/09/23 15:46			2020/09/23 15:46		
COC Number		na			na		
	UNITS	MEL-26	RDL	QC Batch	MEL-26 Lab-Dup	RDL	QC Batch
Nitrate (N)	mg/L	56.1	0.50	6972125			
Nitrate + Nitrite (N)	mg/L	57.2	0.50	6972125			
RADIONUCLIDE							
Radium-226	Bq/L	0.13	0.0050	6970636			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							



BUREAU
VERITAS

BV Labs Job #: COP2827
Report Date: 2020/10/07

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		NTD138			NTD138		
Sampling Date		2020/09/23 15:46			2020/09/23 15:46		
COC Number		na			na		
	UNITS	MEL-26	RDL	QC Batch	MEL-26 Lab-Dup	RDL	QC Batch
Metals							
Mercury (Hg)	mg/L	<0.00001	0.00001	6979386	<0.00001	0.00001	6979386
Dissolved Mercury (Hg)	mg/L	<0.00001	0.00001	6979381			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							



BV Labs Job #: COP2827
Report Date: 2020/10/07

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

TEST SUMMARY

BV Labs ID: NTD138
Sample ID: MEL-26
Matrix: Water

Collected: 2020/09/23
Shipped:
Received: 2020/09/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	6972036	N/A	2020/09/30	Yogesh Patel
Carbonate, Bicarbonate and Hydroxide	CALC	6970845	N/A	2020/10/07	Automated Statchk
Chloride by Automated Colourimetry	KONE	6971884	N/A	2020/10/01	Deonarine Ramnarine
Conductivity	AT	6972045	N/A	2020/09/30	Yogesh Patel
Free (WAD) Cyanide	SKAL/CN	6971366	N/A	2020/09/29	Gnana Thomas
Total Cyanide	SKAL/CN	6969935	2020/09/29	2020/09/29	Gnana Thomas
Dissolved Organic Carbon (DOC)	TOCV/NDIR	6972514	N/A	2020/10/01	Nimarta Singh
Dissolved Oxygen	DO	6972758	2020/09/29	2020/09/29	Frank Zhang
Fluoride	ISE	6972023	2020/09/29	2020/09/30	Yogesh Patel
Dissolved Mercury (low level)	CV/AA	6979381	2020/10/02	2020/10/02	Medhat Nasr
Mercury (low level)	CV/AA	6979386	2020/10/02	2020/10/02	Medhat Nasr
Chloride & Sulphate by Auto Colorimetry	KONE	6985708	N/A	2020/10/01	Fadia Mostafa
Cyanide (Free)	SPEC	6985713	2020/10/01	2020/10/01	Taylor Mullings
Conductivity @25C	COND	6985709	N/A	2020/10/01	Tracy (Jing) Ling
Hardness Total (calculated as CaCO3)	CALC	6986714	N/A	2020/10/01	Automated Statchk
Hardness (calculated as CaCO3)	CALC	6986715	N/A	2020/10/06	Automated Statchk
Elements by ICP-Dissolved-Lab Filtered	ICP	6980514	N/A	2020/10/01	Mary Anne Dela Cruz
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	ICP	6986716	N/A	2020/10/06	Automated Statchk
Elements by CRC ICPMS (dissolved)	ICP/MS	6986717	N/A	2020/10/06	Andrew An
Na, K, Ca, Mg, S by CRC ICPMS (total)	ICP	6978054	2020/10/01	2020/10/01	Automated Statchk
Elements by CRC ICPMS (total)	ICP/MS	6978055	2020/10/01	2020/10/01	Andrew An
pH @25°C	AT/PH	6985710	N/A	2020/10/01	Tracy (Jing) Ling
Sodium Adsorption Ratio	CALC	6985711	N/A	2020/10/01	Automated Statchk
Silica (Reactive)	KONE	6985707	N/A	2020/10/01	Fadia Mostafa
Total Dissolved Solids (Calc. from EC)	CALC	6985712	N/A	2020/10/01	Automated Statchk
Total Ammonia-N	LACH/NH4	6971152	N/A	2020/09/30	Alina Dobreanu
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	6972125	N/A	2020/10/01	Amanpreet Sappal
pH	AT	6972085	2020/09/29	2020/09/30	Yogesh Patel
Orthophosphate	KONE	6971897	N/A	2020/10/02	Alina Dobreanu
Radium-226 Low Level	AS	6970636	N/A	2020/10/05	Blake Barber
Sulphate by Automated Colourimetry	KONE	6971894	N/A	2020/10/01	Deonarine Ramnarine
Calculated Total Dissolved Solids	CALC	6970846	N/A	2020/10/07	Automated Statchk
Total Dissolved Solids	BAL	6972296	2020/09/29	2020/09/30	Shivani Desai
Total Kjeldahl Nitrogen in Water	SKAL	6971161	2020/09/29	2020/09/30	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	6971182	N/A	2020/09/30	Nimarta Singh
Total Phosphorus (Colourimetric)	LACH/P	6971227	2020/09/29	2020/09/30	Shivani Shivani
Low Level Total Suspended Solids	BAL	6967427	2020/09/29	2020/09/30	Massarat Jan
Turbidity	AT	6971821	N/A	2020/09/30	Viorica Rotaru
Low Level Volatile Suspended Solids	BAL	6971505	2020/09/29	2020/09/30	Massarat Jan



BUREAU
VERITAS

BV Labs Job #: COP2827
Report Date: 2020/10/07

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

TEST SUMMARY

BV Labs ID: NTD138 Dup
Sample ID: MEL-26
Matrix: Water

Collected: 2020/09/23
Shipped:
Received: 2020/09/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	SKAL/CN	6971366	N/A	2020/09/29	Gnana Thomas
Dissolved Oxygen	DO	6972758	2020/09/29	2020/09/29	Frank Zhang
Mercury (low level)	CV/AA	6979386	2020/10/02	2020/10/02	Medhat Nasr
Silica (Reactive)	KONE	6985707	N/A	2020/10/01	Fadia Mostafa
Total Organic Carbon (TOC)	TOCV/NDIR	6971182	N/A	2020/09/30	Nimarta Singh



GENERAL COMMENTS

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

Package 1	21.0°C
-----------	--------

Sample NTD138 [MEL-26] : As per clients request double washes done than regular washes TOC< DOC: Both values fall within the method uncertainty for duplicates and are likely equivalent. Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results

Sample was not submitted in an appropriate container for CNFREE-W analysis. Results may have a high bias due to decomposition of hexacyanoferrate and some other metal-cyanide complexes to free cyanide

Sample pH <12, preservation incomplete. Due to volatility of analyte, a low bias in the results is likely.

DISS. ICPMS METALS FOR FEDERAL INT. GWQG (WATER)

Sample NTD138 [MEL-26] Elements by CRC ICPMS (dissolved): RDL raised due to concentration over linear range, sample dilution required.

TOTAL ICPMS METALS FOR CCME CEQG FOR SW (WATER)

Sample NTD138 [MEL-26] Elements by CRC ICPMS (total): RDL raised due to concentration over linear range, sample dilution required.

Results relate only to the items tested.

BUREAU
VERITAS

BV Labs Job #: COP2827

Report Date: 2020/10/07

QUALITY ASSURANCE REPORT

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: RS

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6967427	Total Suspended Solids	2020/09/30					<1	mg/L	8.7	25	98	85 - 115
6969935	Total Cyanide (CN)	2020/09/29	95	80 - 120	100	80 - 120	<0.0050	mg/L	NC	20		
6970636	Radium-226	2020/10/05			93	85 - 115	<0.0050	Bq/L	NC	N/A		
6971152	Total Ammonia-N	2020/09/30	96	75 - 125	99	80 - 120	<0.050	mg/L	12	20		
6971161	Total Kjeldahl Nitrogen (TKN)	2020/09/29	91	80 - 120	106	80 - 120	<0.10	mg/L	1.4	20	103	80 - 120
6971182	Total Organic Carbon (TOC)	2020/09/30	92	80 - 120	94	80 - 120	<0.40	mg/L	0.67	20		
6971227	Total Phosphorus	2020/09/30	96	80 - 120	96	80 - 120	<0.020	mg/L	4.2	20	95	N/A
6971366	WAD Cyanide (Free)	2020/09/29	80	80 - 120	98	80 - 120	<0.0010	mg/L	10	20		
6971505	Volatile Suspended Solids	2020/09/30					<1	mg/L	NC	25		
6971821	Turbidity	2020/09/30			109	85 - 115	<0.1	NTU	NC	20		
6971884	Dissolved Chloride (Cl-)	2020/10/01	118	80 - 120	103	80 - 120	<1.0	mg/L	6.0	20		
6971894	Dissolved Sulphate (SO4)	2020/10/01	NC	75 - 125	103	80 - 120	<1.0	mg/L	0.59	20		
6971897	Orthophosphate (P)	2020/10/02	111	75 - 125	98	80 - 120	<0.010	mg/L	NC	25		
6972023	Fluoride (F-)	2020/09/30	106	80 - 120	102	80 - 120	<0.10	mg/L	NC	20		
6972036	Alkalinity (Total as CaCO3)	2020/09/30			95	85 - 115	<1.0	mg/L	6.7	20		
6972045	Conductivity	2020/09/30			101	85 - 115	<1.0	umho/cm	5.1	25		
6972085	pH	2020/09/30			102	98 - 103			0.50	N/A		
6972125	Nitrate (N)	2020/09/30	102	80 - 120	104	80 - 120	<0.10	mg/L	0.30	20		
6972125	Nitrite (N)	2020/09/30	99	80 - 120	100	80 - 120	<0.010	mg/L	NC	20		
6972296	Total Dissolved Solids	2020/09/30					<10	mg/L	3.3	25	102	90 - 110
6972514	Dissolved Organic Carbon	2020/10/01	97	80 - 120	102	80 - 120	<0.40	mg/L	1.6	20		
6978055	Total Aluminum (Al)	2020/10/01	105	80 - 120	104	80 - 120	<3.0	ug/L				
6978055	Total Antimony (Sb)	2020/10/01	108	80 - 120	104	80 - 120	<0.50	ug/L				
6978055	Total Arsenic (As)	2020/10/01	103	80 - 120	99	80 - 120	<0.10	ug/L				
6978055	Total Barium (Ba)	2020/10/01	102	80 - 120	99	80 - 120	<1.0	ug/L				
6978055	Total Beryllium (Be)	2020/10/01	102	80 - 120	99	80 - 120	<0.10	ug/L				
6978055	Total Bismuth (Bi)	2020/10/01	97	80 - 120	98	80 - 120	<1.0	ug/L				
6978055	Total Boron (B)	2020/10/01	105	80 - 120	102	80 - 120	<50	ug/L				
6978055	Total Cadmium (Cd)	2020/10/01	105	80 - 120	101	80 - 120	<0.010	ug/L				
6978055	Total Chromium (Cr)	2020/10/01	99	80 - 120	98	80 - 120	<1.0	ug/L				
6978055	Total Cobalt (Co)	2020/10/01	102	80 - 120	102	80 - 120	<0.20	ug/L				



BUREAU
VERITAS

BV Labs Job #: COP2827

Report Date: 2020/10/07

QUALITY ASSURANCE REPORT(CONT'D)

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: RS

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6978055	Total Copper (Cu)	2020/10/01	97	80 - 120	96	80 - 120	<0.50	ug/L				
6978055	Total Iron (Fe)	2020/10/01	106	80 - 120	101	80 - 120	<10	ug/L				
6978055	Total Lead (Pb)	2020/10/01	102	80 - 120	101	80 - 120	<0.20	ug/L				
6978055	Total Lithium (Li)	2020/10/01	104	80 - 120	103	80 - 120	<2.0	ug/L				
6978055	Total Manganese (Mn)	2020/10/01	96	80 - 120	96	80 - 120	<1.0	ug/L				
6978055	Total Molybdenum (Mo)	2020/10/01	107	80 - 120	105	80 - 120	<1.0	ug/L				
6978055	Total Nickel (Ni)	2020/10/01	99	80 - 120	98	80 - 120	<1.0	ug/L				
6978055	Total Selenium (Se)	2020/10/01	106	80 - 120	100	80 - 120	<0.10	ug/L				
6978055	Total Silicon (Si)	2020/10/01	105	80 - 120	102	80 - 120	<100	ug/L				
6978055	Total Silver (Ag)	2020/10/01	98	80 - 120	99	80 - 120	<0.020	ug/L				
6978055	Total Strontium (Sr)	2020/10/01	107	80 - 120	97	80 - 120	<1.0	ug/L				
6978055	Total Thallium (Tl)	2020/10/01	103	80 - 120	99	80 - 120	<0.010	ug/L				
6978055	Total Tin (Sn)	2020/10/01	103	80 - 120	99	80 - 120	<5.0	ug/L				
6978055	Total Titanium (Ti)	2020/10/01	103	80 - 120	102	80 - 120	<5.0	ug/L				
6978055	Total Uranium (U)	2020/10/01	107	80 - 120	103	80 - 120	<0.10	ug/L				
6978055	Total Vanadium (V)	2020/10/01	99	80 - 120	97	80 - 120	<5.0	ug/L				
6978055	Total Zinc (Zn)	2020/10/01	103	80 - 120	100	80 - 120	<5.0	ug/L				
6978055	Total Zirconium (Zr)	2020/10/01	105	80 - 120	103	80 - 120	<0.10	ug/L				
6979381	Dissolved Mercury (Hg)	2020/10/02	108	75 - 125	103	80 - 120	<0.00001	mg/L	NC	20		
6979386	Mercury (Hg)	2020/10/02	98	75 - 125	103	80 - 120	<0.00001	mg/L	NC	20		
6980514	Dissolved Calcium (Ca)	2020/10/01	100	80 - 120	102	80 - 120	<0.30	mg/L				
6980514	Dissolved Magnesium (Mg)	2020/10/01	97	80 - 120	98	80 - 120	<0.20	mg/L				
6980514	Dissolved Potassium (K)	2020/10/01	98	80 - 120	96	80 - 120	<0.30	mg/L				
6980514	Dissolved Sodium (Na)	2020/10/01	94	80 - 120	96	80 - 120	<0.50	mg/L				
6985707	Reactive Silica (SiO2)	2020/10/01	17 (1)	80 - 120	109	80 - 120	<0.050	mg/L	2.0	20		
6985708	Dissolved Chloride (Cl-)	2020/10/01	102	80 - 120	103	80 - 120	<1.0	mg/L				
6985708	Dissolved Sulphate (SO4)	2020/10/01	NC	80 - 120	106	80 - 120	<1.0	mg/L				
6985709	Conductivity	2020/10/01			102	90 - 110	<2.0	uS/cm				
6985710	pH	2020/10/01			100	97 - 103						
6985713	Free Cyanide (CN)	2020/10/01	100	80 - 120	100	80 - 120	<1.0	ug/L				
6986717	Dissolved Aluminum (Al)	2020/10/06	103	80 - 120	100	80 - 120	<3.0	ug/L				
6986717	Dissolved Antimony (Sb)	2020/10/06	107	80 - 120	102	80 - 120	<0.50	ug/L				

BUREAU
VERITAS

BV Labs Job #: COP2827

Report Date: 2020/10/07

QUALITY ASSURANCE REPORT(CONT'D)

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: RS

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6986717	Dissolved Arsenic (As)	2020/10/06	105	80 - 120	99	80 - 120	<0.10	ug/L				
6986717	Dissolved Barium (Ba)	2020/10/06	104	80 - 120	99	80 - 120	<1.0	ug/L				
6986717	Dissolved Beryllium (Be)	2020/10/06	100	80 - 120	100	80 - 120	<0.10	ug/L				
6986717	Dissolved Bismuth (Bi)	2020/10/06	95	80 - 120	95	80 - 120	<1.0	ug/L				
6986717	Dissolved Boron (B)	2020/10/06	100	80 - 120	99	80 - 120	<50	ug/L				
6986717	Dissolved Cadmium (Cd)	2020/10/06	107	80 - 120	101	80 - 120	<0.010	ug/L				
6986717	Dissolved Chromium (Cr)	2020/10/06	98	80 - 120	98	80 - 120	<1.0	ug/L				
6986717	Dissolved Cobalt (Co)	2020/10/06	98	80 - 120	97	80 - 120	<0.20	ug/L				
6986717	Dissolved Copper (Cu)	2020/10/06	95	80 - 120	96	80 - 120	<0.20	ug/L				
6986717	Dissolved Iron (Fe)	2020/10/06	NC	80 - 120	101	80 - 120	<5.0	ug/L				
6986717	Dissolved Lead (Pb)	2020/10/06	100	80 - 120	99	80 - 120	<0.20	ug/L				
6986717	Dissolved Lithium (Li)	2020/10/06	97	80 - 120	99	80 - 120	<2.0	ug/L				
6986717	Dissolved Manganese (Mn)	2020/10/06	NC	80 - 120	100	80 - 120	<1.0	ug/L				
6986717	Dissolved Molybdenum (Mo)	2020/10/06	113	80 - 120	102	80 - 120	<1.0	ug/L				
6986717	Dissolved Nickel (Ni)	2020/10/06	97	80 - 120	99	80 - 120	<1.0	ug/L				
6986717	Dissolved Selenium (Se)	2020/10/06	109	80 - 120	102	80 - 120	<0.10	ug/L				
6986717	Dissolved Silicon (Si)	2020/10/06	NC	80 - 120	99	80 - 120	<100	ug/L				
6986717	Dissolved Silver (Ag)	2020/10/06	103	80 - 120	98	80 - 120	<0.020	ug/L				
6986717	Dissolved Strontium (Sr)	2020/10/06	NC	80 - 120	98	80 - 120	<1.0	ug/L				
6986717	Dissolved Thallium (Tl)	2020/10/06	103	80 - 120	98	80 - 120	<0.010	ug/L				
6986717	Dissolved Tin (Sn)	2020/10/06	105	80 - 120	100	80 - 120	<5.0	ug/L				
6986717	Dissolved Titanium (Ti)	2020/10/06	105	80 - 120	101	80 - 120	<5.0	ug/L				
6986717	Dissolved Uranium (U)	2020/10/06	108	80 - 120	102	80 - 120	<0.10	ug/L				
6986717	Dissolved Vanadium (V)	2020/10/06	102	80 - 120	98	80 - 120	<5.0	ug/L				
6986717	Dissolved Zinc (Zn)	2020/10/06	103	80 - 120	103	80 - 120	<5.0	ug/L				



BUREAU
VERITAS

BV Labs Job #: COP2827
Report Date: 2020/10/07

QUALITY ASSURANCE REPORT(CONT'D)

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
6986717	Dissolved Zirconium (Zr)	2020/10/06	113	80 - 120	100	80 - 120	<0.10	ug/L				

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.

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 $\leq 2 \times$ RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



BUREAU
VERITAS

BV Labs Job #: COP2827

Report Date: 2020/10/07

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: RS

VALIDATION SIGNATURE PAGE

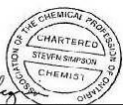
The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Anastassia Hamanov, Scientific Specialist

Brad Newman, B.Sc., C.Chem., Scientific Service Specialist

David Huang, BBY Scientific Specialist

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



Steven Simpson, Lab Director

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 #: COP2827

Report Date: 2020/10/07

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: RS

Exceedance Summary Table – Metal Mining Effluent Reg
Result Exceedances

Sample ID	BV Labs ID	Parameter	Criteria	Result	DL	UNITS
No Exceedances						
The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.						



900, 5th Avenue
Val-d'Or (Quebec) J9P 1B9
Phone: 819 874-0350
Toll Free: 1 877 326-8690
www.h2lab.ca

Certificate # : VD05738
Client # : 1353
Client Reference # : MEL-26

CERTIFICATE OF ANALYSIS

Agnico Eagle Meliadine

Meliadine
Rankin Inlet
Nunavut X0C 0A0

Received on:	2020/09/17
Sampled on:	2020/09/16
Matrix:	Surface Water
Sampling site code:	Meliadine
Customer information	Rush 24h
Order #:	OL-664692

Samples: MEL-26

Sampler : DM/RS

The sample's appreciation and conformity towards established norms, if applicable, is based and limited to analyzed parameters. This report can't be reproduced, unless in whole, without prior written authorization from the laboratory. The results are related only to samples submitted for testing.



Signataire: Rouyn-Noranda



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Toll Free: 1 877 326-8690
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Certificate # : VD05738
Client # : 1353
Client Reference # : MEL-26

CERTIFICATE OF ANALYSIS

RESULTS

Laboratory ID		101816
Client ID		MEL-26
Matrix		Surface Water
Sampling site		Meliadine
Sampled on	unit	2020/09/16
Suspended Solids a 2	mg/L	31
V.S.S. 2	mg/L	3

Quality control

Parameter (method)	*LDR	Unit	Blank	Standard				Duplicate		Analyzed on
				Name	Value	Expected	Interval	#1	#2	
Suspended Solids (H2Lab-SOLI-011) a	1	mg/L	< 1	MES-220ppm -2020	232	220	[194,246]	32	31	2020-09-19
V.S.S. (H2Lab-SOLI-011) 2	1	mg/L	< 1	--	--	--	--	--	--	2020-09-23

Legend :

a : Accredited parameter

2 : analysis made by H2Lab Laboratory at Rouyn-Noranda

*LDR : Limit of detection reported



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Phone: 819 874-0350
Toll Free: 1 877 326-8690
www.h2lab.ca

Certificate # : VD05738
Client # : 1353
Client Reference # : MEL-26

CERTIFICATE OF ANALYSIS

The sample's appreciation and conformity towards established norms, if applicable, is based and limited to analyzed parameters. This report can't be reproduced, unless in whole, without prior written authorization from the laboratory. The results are related only to samples submitted for testing.

END OF CERTIFICATE



900, 5th Avenue
Val-d'Or (Quebec) J9P 1B9
Phone: 819 874-0350
Toll Free: 1 877 326-8690
www.h2lab.ca

Certificate # : VD05794
Client # : 1353
Client Reference # : MEL-26

CERTIFICATE OF ANALYSIS

Agnico Eagle Meliadine

Meliadine
Rankin Inlet
Nunavut X0C 0A0

Received on:	2020/09/21
Sampled on:	2020/09/18
Matrix:	Surface Water
Sampling site code:	Meliadine
Customer information	Rush 24h
Order #:	OL-664692

Samples: MEL-26

Sampler : MEB/MG/SA

The sample's appreciation and conformity towards established norms, if applicable, is based and limited to analyzed parameters. This report can't be reproduced, unless in whole, without prior written authorization from the laboratory. The results are related only to samples submitted for testing.

Signataire, Val-d'Or



900, 5th Avenue
Val-d'Or (Quebec) J9P 1B9
Phone: 819 874-0350
Toll Free: 1 877 326-8690
www.h2lab.ca

Certificate # : VD05794
Client # : 1353
Client Reference # : MEL-26

CERTIFICATE OF ANALYSIS

RESULTS

Laboratory ID		101874
Client ID		MEL-26
Matrix		Surface Water
Sampling site		Meliadine
Sampled on	unit	2020/09/18
Suspended Solids a 2	mg/L	6
V.S.S. 2	mg/L	2

Quality control

Parameter (method)	*LDR	Unit	Blank	Standard				Duplicate		Analyzed on
				Name	Value	Expected	Interval	#1	#2	
Suspended Solids (H2Lab-SOLI-011) a	1	mg/L	< 1	DMR-0371-20 20-MES	116	128	[113,143]	9	9	2020-09-22
V.S.S. (H2Lab-SOLI-011) 2	1	mg/L	< 1	DMR-0371-20 20-MES	60	71	[55,87]	2	2	2020-09-23

Legend :

a : Accredited parameter **2** : analysis made by H2Lab Laboratory at Rouyn-Noranda *LDR : Limit of detection reported



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Certificate # : VD05794
Client # : 1353
Client Reference # : MEL-26

CERTIFICATE OF ANALYSIS

The sample's appreciation and conformity towards established norms, if applicable, is based and limited to analyzed parameters. This report can't be reproduced, unless in whole, without prior written authorization from the laboratory. The results are related only to samples submitted for testing.

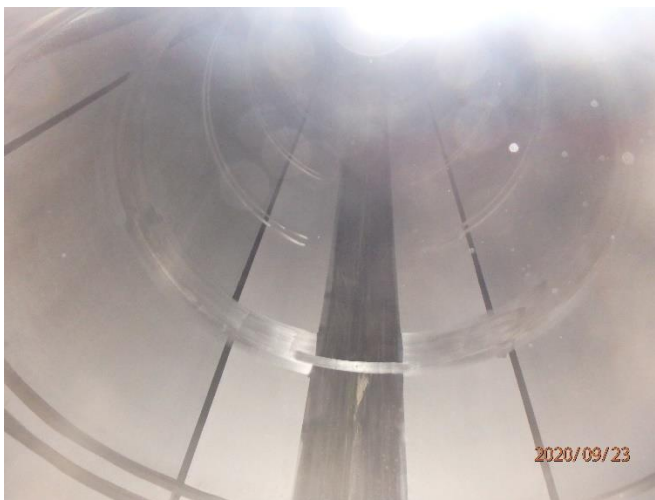
END OF CERTIFICATE

Appendix B: Inspection Log Sheet Template

Tanker Pre-filling Inspection Log

[illegible]

Tanker Inspection Photos





Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR 09-23-2020		REPORT TIME 17:30		<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
	B	OCCURRENCE DATE: MONTH – DAY – YEAR 09-23-2020		OCCURRENCE TIME 06:00		
C		LAND USE PERMIT NUMBER (IF APPLICABLE) KVPL11D01			WATER LICENCE NUMBER (IF APPLICABLE) 2AM-MEL1631	
	D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Meliadine Gold Project			REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN	
E		LATITUDE DEGREES 63 MINUTES 2 SECONDS 22			LONGITUDE DEGREES 92 MINUTES 13 SECONDS 42	
	F	RESPONSIBLE PARTY OR VESSEL NAME Agnico Eagle Mines Ltd.		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Meliadine, Rankin Inlet, Nunavut, X0C 0G0		
G		ANY CONTRACTOR INVOLVED N/A		CONTRACTOR ADDRESS OR OFFICE LOCATION N/A		
	H	PRODUCT SPILLED Diesel		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 12,000L		U.N. NUMBER 1202
I		SECOND PRODUCT SPILLED (IF APPLICABLE) N/A		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES N/A		U.N. NUMBER N/A
	J	SPILL SOURCE Fuel transfer system		SPILL CAUSE Mechanical failure		AREA OF CONTAMINATION IN SQUARE METRES 500
K		FACTORS AFFECTING SPILL OR RECOVERY Proximity to infrastructure		DESCRIBE ANY ASSISTANCE REQUIRED N/A		HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT Potential fire hazards
	L	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS <p>At 06:00 the Environment department received a call that there was fuel observed leaking from the main camp boiler/gen-set system, on the raised pad between the camp and warehouse. The system was immediately shut down, spill pads were deployed and sumps were dug to contain the spill.</p> <p>Initial investigation suggests that the cause of the spill may have been linked to a failure of a mechanical valve or fuel level float, which would normally act as an automatic shut-off between a primary tank and a smaller secondary tank which feeds the boiler. Clean up actions are ongoing.</p> <p>No water bodies were impacted by this event. The nearest water body is 230m from the spill location. A follow-up report will be issued after a closer investigation is completed. Reported by Sean Arruda, Environment Coordinator 819-759-3555 ext. 4603996 sean.arruda@agnicoeagle.com.</p>				
M		REPORTED TO SPILL LINE BY Sean Arruda		POSITION Env Coordinator		EMPLOYER AEM
	N	ANY ALTERNATE CONTACT Terry Ternes		POSITION Env Gen Supervisor		EMPLOYER AEM
REPORT LINE USE ONLY						
N	RECEIVED AT SPILL LINE BY		POSITION STATION OPERATOR		EMPLOYER	
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC				SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME		CONTACT TIME		REMARKS
LEAD AGENCY						
FIRST SUPPORT AGENCY						
SECOND SUPPORT AGENCY						
THIRD SUPPORT AGENCY						



AGNICO EAGLE

Post Mortem

Meliadine Main Camp Fuel Spill

REV.	Description	Revised by	Date
A	Preliminary Investigation	John Stewart	Sep. 25, 2020
01	Final Investigation	Emmanuelle Keogh	Sep. 30, 2020

**ABSTRACT**

Intelex No.	28085
Department	Energy and Infrastructure
Potential Consequence	Moderate
Probability	Low
Risk Level	6 - Medium
Date of Occurrence	Tuesday, September 22, 2020
Time of Occurrence	9:30 PM
Date Reported	Wednesday, September 23, 2020
Time Reported	6:30 AM
Location	The location is the main camp complex emergency generator between the arctic corridor and the MSB building.
Description	A 10,000L diesel fuel spill occurred at the main camp complex emergency daily tanks which are supplied by the main camp 50,000L tank. The two (2) tanks were subjected to a solenoid valve mechanical failure which resulted in overfilling and spilling from their common vent pipe. The fuel spill was outside.
Contribution Factors	<ul style="list-style-type: none">• Lack of filtration prior to critical equipment and instrumentation• Oversight of running equipment in manual mode• Absence of high and/or high-high level alarms• Deficiency of an overflow return line



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1. TIMELINE

Pursuant to the investigation, it is determined that the fuel spill occurred as of 9:30 PM on September 22, 2020.

The spill took place at the main camp complex emergency generator (CCEG) between the arctic corridor and the multi-service building (MSB). The camp complex emergency generator's two (2) daily tanks were overfilling which resulted in spillage from their common vent line until the following morning's discovery, Wednesday September 23, 2020, at 6:15 AM. Upon discovery, the fuel feeder pumps were stopped resulting in end of the spill.

During this timeframe, an estimated 10,210L of ultra-low sulfur diesel (ULSD) was spilled. Calculation is shown on following page.

Figure 1 shows the event's timeline. Main camp complex fuel tank level in blue. The tank supplies the camp complex boiler module (CCBM) and the camp complex emergency generator (CCEG). Their energy totalizer are graphed in green and red respectively. Seven (7) points, i.e. A, B, C, D, E, F and G describe the event's timeline.

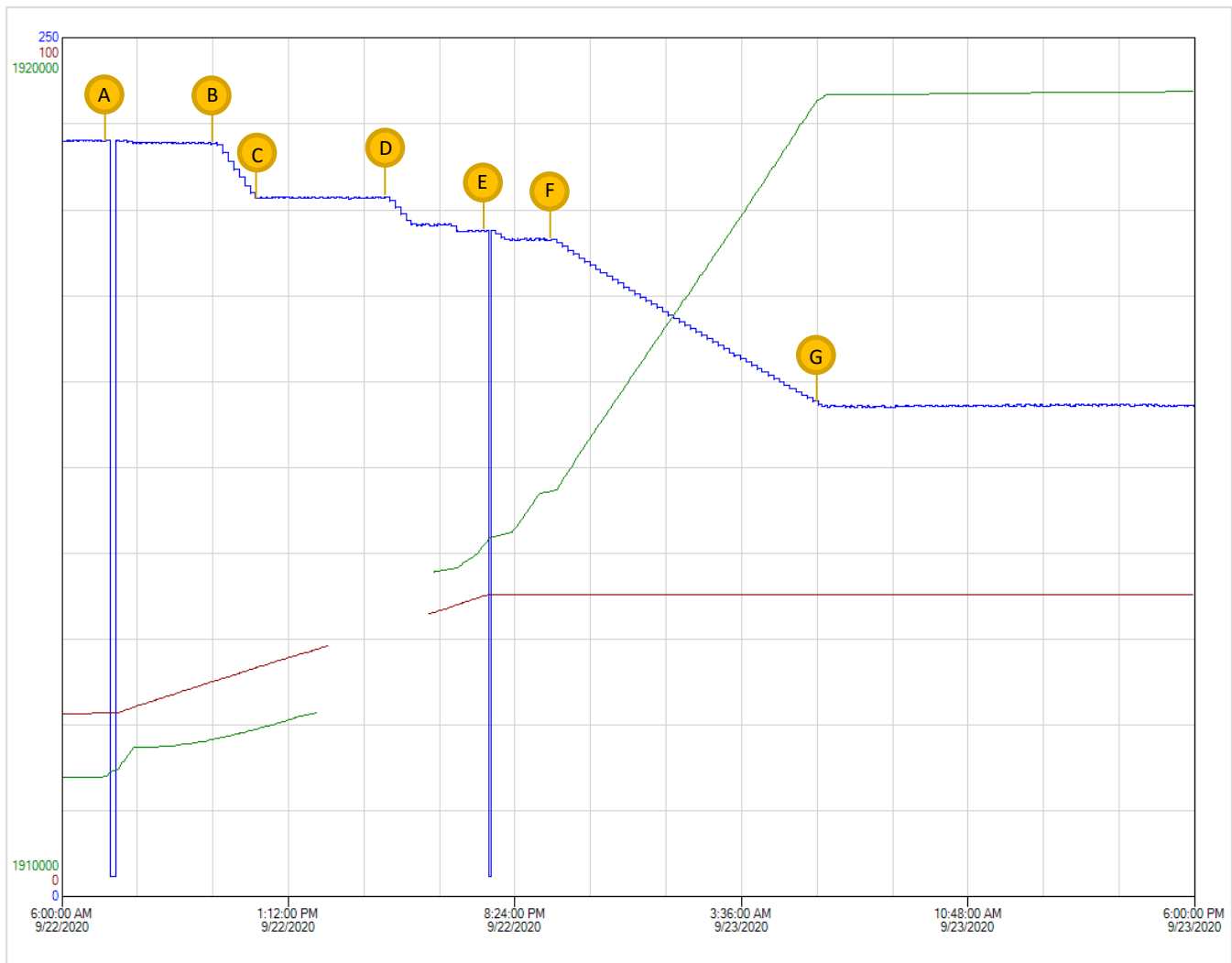


Figure 1: Main Camp Complex Fuel Tank Level (blue), CCBM Energy Totalizer (green) and CCEG Totalizer (red)

The identified points correspond to the following date and times:

- Point A: September 22 at 7:30 AM;
- Point B: September 22 at 11:00 AM;
- Point C: September 22 at 12:15 PM;
- Point D: September 22 at 4:15 PM;
- Point E: September 22 at 7:30 PM;
- Point F: September 22 at 9:30 PM; and
- Point G: September 23 at 6:15 AM.

Main events from Figure 1 are summarized below:

- The CCBM and CCEG are started at point A. Scheduled power plant electrical shutdown obliged.
- The CCEG daily tanks have likely reached 40% capacity, the solenoid valve is open, and system is starting to be supplied fuel from the main camp complex fuel tank at point B.
- The CCEG daily tanks have likely reached 85% capacity, the solenoid valve is closed, and system is stopping to be supplied fuel from the main camp complex fuel tank at point C.
- The CCEG daily tanks have likely reached 40% capacity, the solenoid valve is open, and system is starting to be supplied fuel from the main camp complex fuel tank at point D.
- The CCEG is stopped at point E.
- The CCEG daily tanks have likely reached near full capacity, the solenoid valve remains open, and the overfilling starts, which results in a spill.
- The spill is noticed and fuel feeder pumps are manually stopped. This subsequently halts the spill and shuts down the CCBM.

Data from the AEM server is summarized in Table 1 below. Main camp complex tank level is in accordance with its original equipment manufacturer (OEM) volumetric tank chart.

Table 1: Point B and Point G Operation Data

	Point B	Point G	Difference
Main Camp Complex Tank Volume [L]	46,236L	29,326L	(16,910L)
CCEG Daily Tank 1 Volume [L]	1,000L	2,500L	1,500L
CCEG Daily Tank 2 Volume [L]	1,000L	2,500L	1,500L
CCBM Energy Totalizer [kWh]	1,911,846	1,919,329	7,482
CCEG Energy Totalizer [kWh]	25,315	35,268	9,952

It is possible to estimate the CCBM and CCEG fuel consumption between point B and point G based on their theoretical specific fuel consumption. Results are summarized in Table 2 below.

Table 2: CCBM and CCEG Fuel Consumption Between Point B and Point G

	Energy [kWh]	Specific Fuel [L/kWh]	Fuel Consumed [L]
CCBM	7,482	0.122	913
CCEG	9,952	0.280	2,787

From the three (3) fuel tank levels computed in Table 1 and the two (2) assets' fuel consumption computed in Table 2, it is possible to estimate a total fuel spill of approximately 10,210L between point F and point G.



It is critical to note that point B and point G were analyzed because levels in the main camp complex tank and the CCEG daily tanks are known at these times. While the main camp complex tank level is continuously monitored in the AEM database, the CCEG daily tanks are not.

- It is a reasonable assumption that the CCEG tanks are at 40% capacity at point B. The CCEG daily tanks are being filled by the main camp complex tank from point B to point C. In normal operation, the CCEG daily tanks are supplied from 40% capacity to 85% capacity. Normal operation is presumed from point B to point C because the trend is comparable to previous data as shown in Figure 2.



Figure 2: Main Camp Complex Fuel Tank Level (blue), CCBM Energy Totalizer (green) and CCEG Totalizer (red)

- it is a reasonable assumption that the CCEG tanks are at 100% capacity at point G. During the spill and immediately upon discovery, the CCEG must be full as the event is a result of their overflow.

2. IMMEDIATE ACTION

The immediate actions are inclusive of:

- Locking of the CCEG fuel delivery system pending permanent corrective actions;
- Installation of absorbent pads; and
- Digging of two (2) container trenches with a center excavation to obtain a rough sump for fuel drainage.

3. REMEDIATION

The environment department is responsible for evaluating short and long-term in-situ and ex-situ remediation measures inclusive of tentative permanent monitoring wells. Their work is in collaboration and in compliance with federal, territorial and local authorities.

As mentioned in section 2, two (2) initial container trenches were dug with the objective of pumping fuel into 1,000L totes. The sump level is periodically monitored by the E&I department. In date of September 29, a total of eight (8) totes have been filled to 80% capacity each. The first tote appeared to be mostly ULSD. For subsequent totes, the fuel concentration is considerably decreasingly as per visual observation. Fresh water is likely infiltrating into the excavated sumps. Samples were taken and have been sent to an external laboratory for analysis. Cetane Index test as per ASTM D4737 will be conducted for density to draw conclusions on fuel concentration.

Number of pumped totes per day is summarized in Table 3 below.

Table 3: Pumped Totes per Day

	Totes	Concentration [L/L]	Fuel [L]
September 23, 2020	1	TBC	TBD
September 24, 2020	2	TBC	TBD
September 25, 2020	1	TBC	TBD
September 26, 2020	1.5	TBC	TBD
September 27, 2020	1	TBC	TBD
September 28, 2020	0.5	TBC	TBD
September 29, 2020	1	TBC	TBD

4. INVESTIGATION

The investigation revealed the spill is a combined result of an instrumentation mechanical failure and lack of safety protection, or redundancy, on the CCEG fuel delivery system. This section presents the findings of the investigation conducted by the E&I department.

First of all, the spill is not a result of labor. The spill occurred during night shift likely between 9:30 PM on September 22 and 6:15 AM on September 23. There was no human intervention during night shift in regards to the main camp complex fuel delivery system.

Secondly, the spill was not immediately preceded by any manipulation. The system was being operated within design specifications with the exception that the fuel delivery pumps were running in manual mode as opposed to automatic. There is an additional safety interlock to shut down the fuel delivery pumps when the daily tanks reach a high-high level alarm at 95% capacity. This would have likely stopped the pumps if they had been running in automatic mode.

Thirdly, the spill is not a result of the environment. The spill was not preceded by an environmental (e.g. ambient temperature or pressure) spike or a change in weather conditions. Slight thermal contraction of fuel in the generator daily tanks could have triggered their level switch filling at 40% tank capacity. However, in normal operation, tanks would have filled up to 85% capacity without overfilling causing a spill.

Finally, it was determined the spill is a result of equipment deficiency. In fact, instrumentation failure is involved in the incident. Specifically, the critical solenoid valve which controls fuel supply to the two (2) CCEG daily tanks failed to close causing overfilling of the tanks and resulting in the spill.

The CCEG fuel delivery system is shown in piping and instrumentation diagram (P&ID) below in Figure 3.

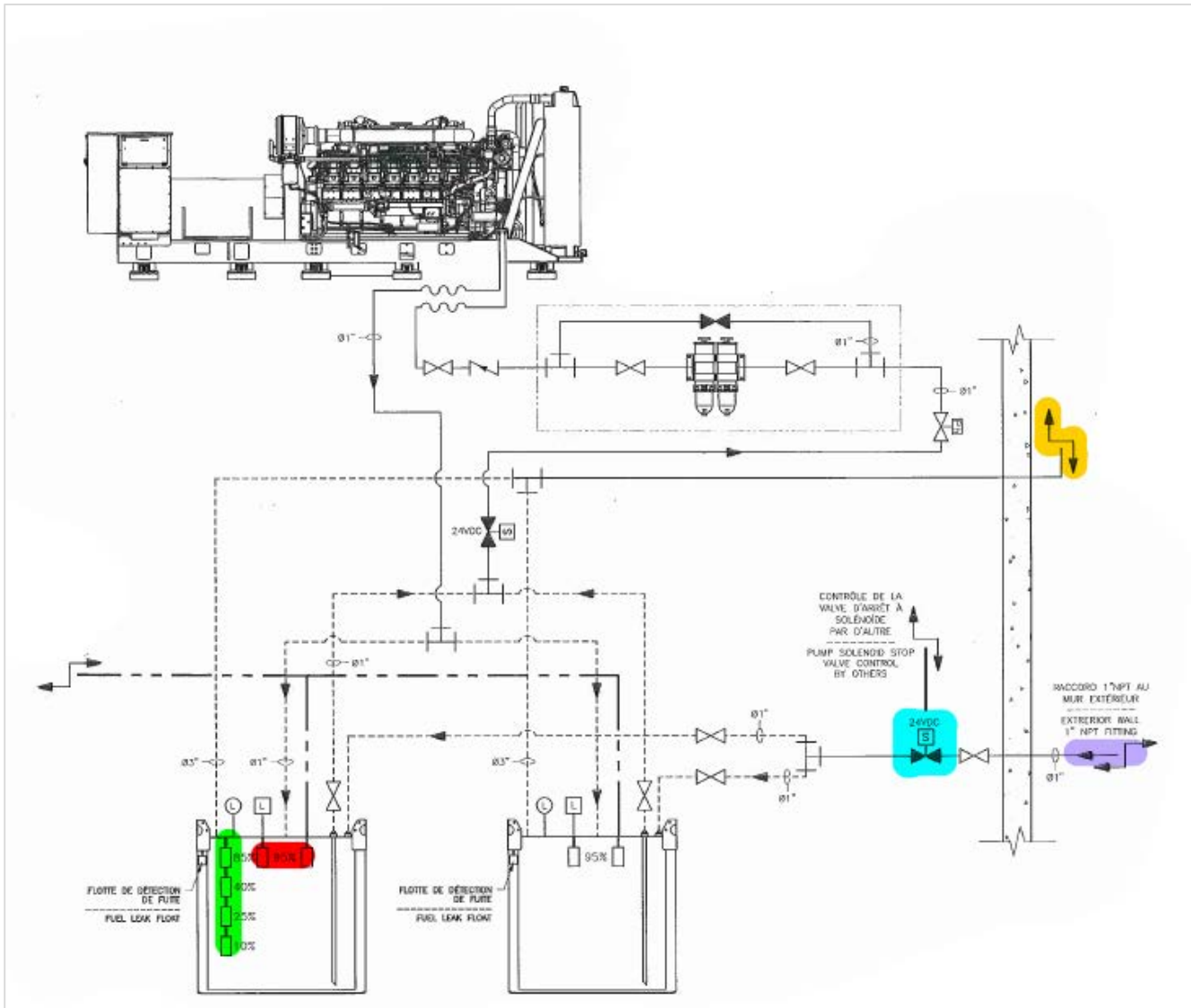


Figure 3: CCEG P&ID (Hewitt, 2018)

From Figure 3:

- In purple, the fuel supply to the CCEG daily tanks is shown.
- In blue, the solenoid valve which controls the fuel supply is shown.
- In green, the daily tank level switches are shown.
- In red, an independent high-high level is shown.
- In yellow, the required fuel vent return to the main camp complex tank is shown.

A faulty solenoid valve could be result of an electrical issue, e.g. loss of electrical signal for closure, or a mechanical issue, e.g. failed closing mechanism. It is important to understand the solenoid valve controls the fuel supply in accordance with its control line signals given by the level switches. These are inclusive of four (4) floats at 10%, 25%, 40% and 85% tank capacity. They are in the control line of the solenoid valve. The high-high 95% capacity level is in the fuel feeders' (not shown) control line. In normal operation, the solenoid valve receives a signal to open at a low level of 40%. In normal operation, the solenoid valve receives a signal to close at a high level of 85%. Pursuant to the investigation, an E&I instrumentation technician tested the functioning of the level switches. Test was conclusive and results are detailed in Appendix A.

Thus, the valve suspected of mechanical failure was dismantled for further investigation. A 30mm piece of wear metal was found stuck on the valve diaphragm assembly. The piece is likely from a fuel feeder pump's bushing. This piece of wear metal suspected to have prevented valve complete closure. Its tip is seen through the valve body in Figure 4. The complete piece is seen in Figure 5 and is measured in Figure 6.

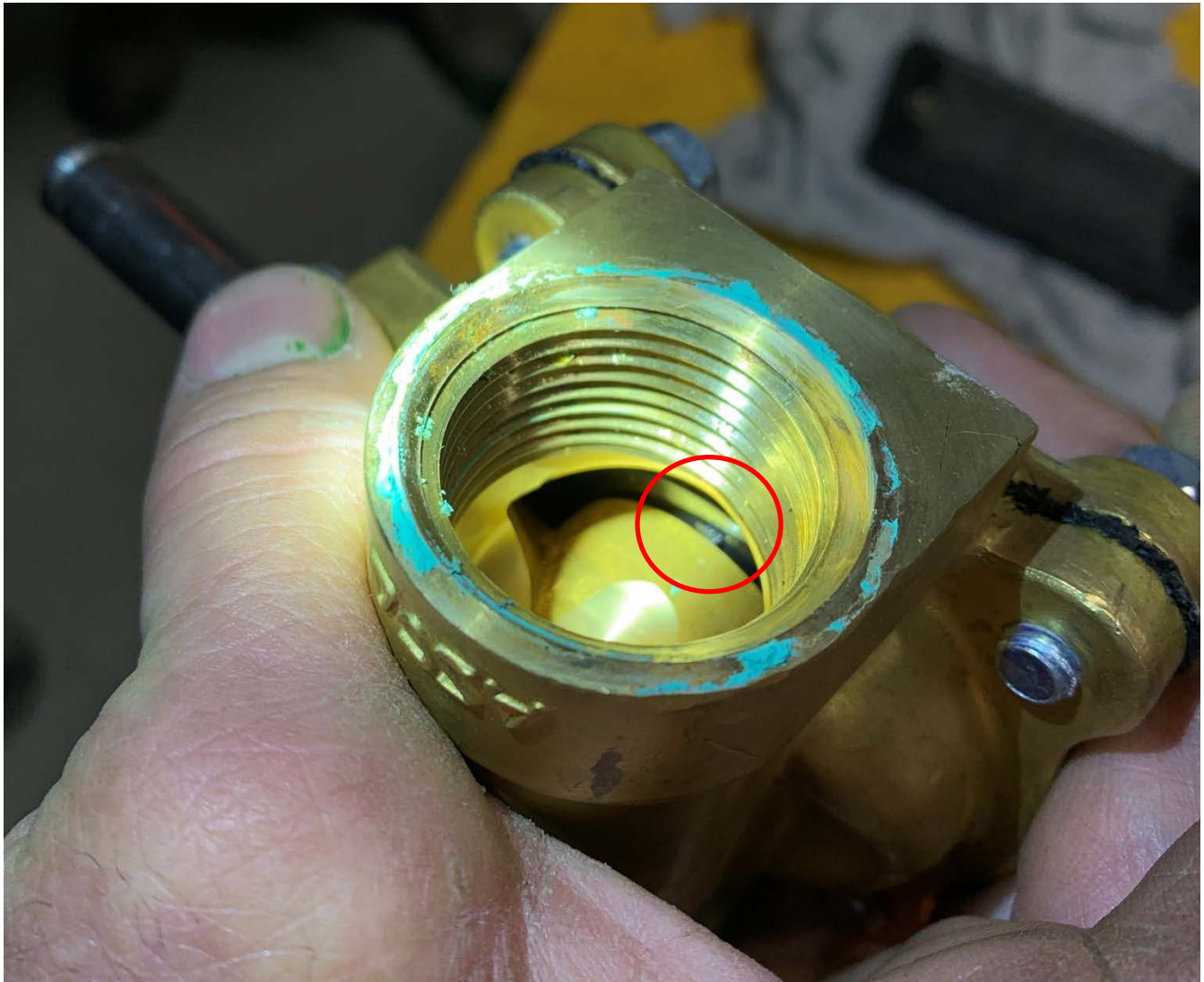


Figure 4: Piece of Metal Stuck seen Through Valve Body

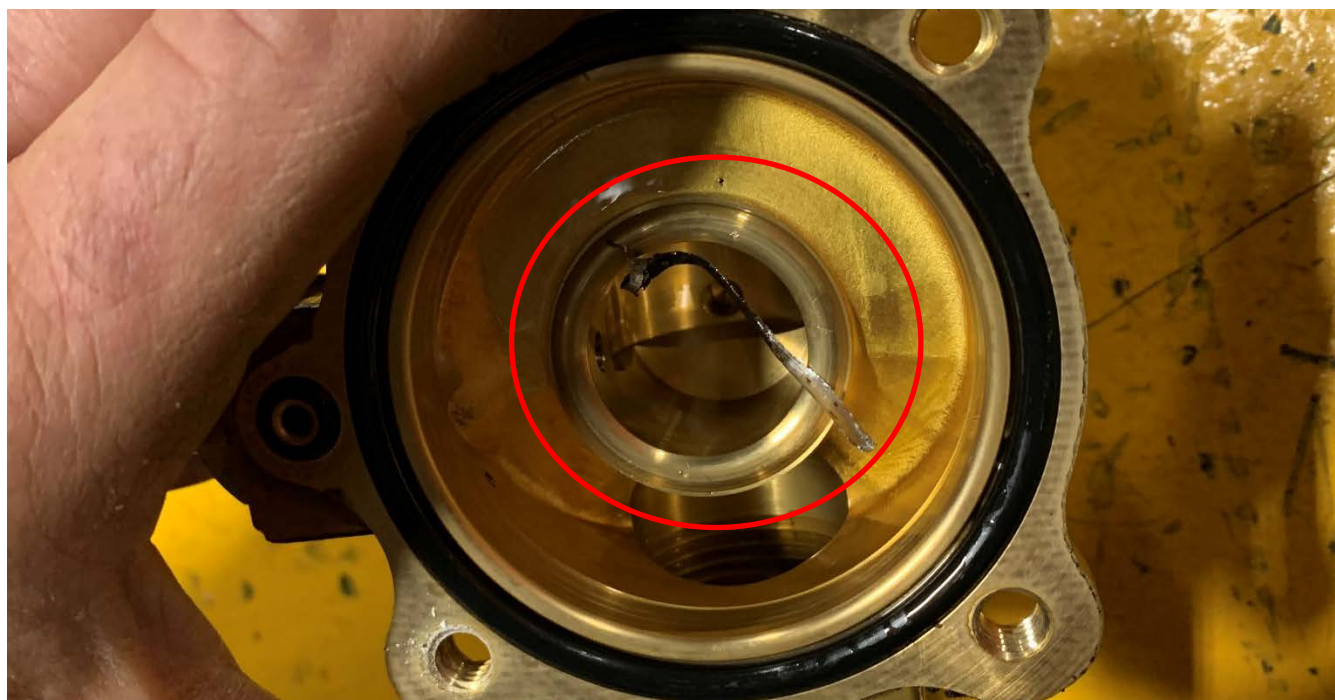


Figure 5: Piece of Metal through Body Passage

The piece is a 30mm iron (Fe) shard.



Figure 6: Measurement of Piece of Metal

In summary,

- The high 85% level switch sent a signal to the PLC to close the solenoid valve;
- Solenoid valve did not close as a result of a stuck piece of wear metal;
- The high-high 95% level switch did not send a signal to PLC to close the solenoid valve because it was not programmed to be in its control line;
- The high-high 95% level switch did not send a signal to PLC to shut the fuel feeder pumps because these had been running in manual mode as opposed to automatic;
- CCEG daily tanks overfilled;
- ULSD spilled from the common vent return line because it has not been piped back to the main camp complex tank as per the P&ID submitted for construction.

The contributing factors are inclusive of:

- Lack of filtration prior to critical equipment and instrumentation;
- Oversight of running equipment in manual mode as opposed to automatic;
- Absence of high and/or high-high level alarms; and
- Deficiency of an overflow return line.

Incident indirect immediate causes are selected in Table 4.

Table 4: Indirect Immediate Causes

Indirect Immediate Causes	
Substandard Practices	Substandard Conditions
<input type="checkbox"/> 01 Operating equipment without authority <input type="checkbox"/> 02 Improper/lack of communication <input type="checkbox"/> 03 Failure to secure/make safe <input type="checkbox"/> 04 Operating at improper speed <input type="checkbox"/> 05 Making safety devices inoperable <input type="checkbox"/> 06 Removing safety devices <input type="checkbox"/> 07 Using defective equipment <input type="checkbox"/> 08 Using equipment improperly <input type="checkbox"/> 09 Failure to use PPE properly <input type="checkbox"/> 10 Improper loading <input type="checkbox"/> 11 Improper placement <input type="checkbox"/> 12 Improper lifting <input type="checkbox"/> 13 Improper position for task <input type="checkbox"/> 14 Servicing equipment in operation <input type="checkbox"/> 15 Horseplay <input type="checkbox"/> 16 Inadequate inspection <input type="checkbox"/> 17 Not respecting rules/procedures <input type="checkbox"/> 18 Other <input checked="" type="checkbox"/> 19 N/A	<input type="checkbox"/> 20 Inadequate guards or barriers <input type="checkbox"/> 21 Inadequate ground support <input type="checkbox"/> 22 Inadequate/improper protective equipment <input checked="" type="checkbox"/> 23 Defective tools, equipment or material <input type="checkbox"/> 24 Congestion or restricted action <input checked="" type="checkbox"/> 25 Inadequate warning systems <input type="checkbox"/> 26 Fire/explosion hazard <input type="checkbox"/> 27 Substandard Housekeeping <input type="checkbox"/> 28 Hazardous environmental conditions <input type="checkbox"/> 29 Noise exposure <input type="checkbox"/> 30 Radiation exposure <input type="checkbox"/> 31 Temperature exposure <input type="checkbox"/> 32 Inadequate or excessive illumination <input type="checkbox"/> 33 Inadequate ventilation <input type="checkbox"/> 34 Ground rock conditions <input type="checkbox"/> 35 Procedure does not exist <input type="checkbox"/> 36 PPE missing <input type="checkbox"/> 37 Failure to warn <input type="checkbox"/> 38 Poor communications <input type="checkbox"/> 39 Instability of surface, slippery conditions <input type="checkbox"/> 40 Other <input type="checkbox"/> 41 NA

Incident root causes are selected in Table 5.

Table 5: Root Causes

Root Causes			
Personal Factors	Job Factors	Supervisory Performance	Management Policy
<input type="checkbox"/> 42 Physical conditions <input type="checkbox"/> 43 Mental conditions <input type="checkbox"/> 44 Lack of knowledge <input type="checkbox"/> 45 Lack of Skill <input type="checkbox"/> 46 Stress <input type="checkbox"/> 47 Improper motivation <input type="checkbox"/> 48 Abuse or misuse <input type="checkbox"/> 49 Other <input checked="" type="checkbox"/> 50 N/A	<input type="checkbox"/> 51 Supervision <input type="checkbox"/> 52 Engineering/design <input type="checkbox"/> 53 Purchasing standard <input type="checkbox"/> 54 Maintenance <input type="checkbox"/> 55 Tools/equipment <input type="checkbox"/> 56 Wear and tear <input checked="" type="checkbox"/> 57 Equipment <input type="checkbox"/> 58 Abnormal usage <input type="checkbox"/> 59 Change introduced <input type="checkbox"/> 60 Other <input type="checkbox"/> 61 N/A	<input type="checkbox"/> 62 Instruction <input type="checkbox"/> 63 Job Safety Analysis <input type="checkbox"/> 64 Rules not enforced <input type="checkbox"/> 65 Hazards not controlled <input type="checkbox"/> 66 Devices not provided <input type="checkbox"/> 67 Other <input checked="" type="checkbox"/> 68 N/A	<input type="checkbox"/> 69 Work standards <input type="checkbox"/> 70 Safety Management <input type="checkbox"/> 71 Supervision <input type="checkbox"/> 72 Training <input type="checkbox"/> 73 Other <input checked="" type="checkbox"/> 74 N/A

5. COMMUNICATION

The Nunavut Environmental Protection Act states that spills of any flammable liquid exceeding a volume of 100L must be reported within twenty-four (24) hours.

On September 23, the Environment Department gathered preliminary information and submitted a standard Nunavut Spill Report form to the twenty-four (24) hours spill line via email, and included members of Environment and Climate Change Canada (ECCC), the Nunavut Water Board (NWB), the Nunavut Impact Review Board (NIRB), Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC), the Government of Nunavut (GN), and the Kivalliq Inuit Association (KIA). The spill is identified in the online database as 2020-356, and was reported via email to all regulators and management via email at 17:30.

The Community Relations group is responsible for communicating with involved stakeholders.

6. RECOMMENDATION

An action plan detailing corrective and preventive measures in reference to the main camp fuel spill is summarized in Table 6 below.

Table 6: Action Plan Summary

	Type	Action Required
1	Corrective	Replace the failed solenoid valve with on-site spare.
2	Corrective	Install a return line from the CCEG daily tanks common vent to the main camp complex tank.
3	Corrective	Revise the automation commissioning of the CCBM.
4	Preventive	Implement the high-high level interlock on the solenoid valve control line.
4	Preventive	Implement the high-high level interlock on the fuel feeder pumps manual mode control line.
5	Preventive	Conduct an external verification inclusive of a risk assessment of Meliadine fuel delivery systems.
6	Preventive	Perform a survey of fuel delivery systems construction deficiencies for Meliadine.
7	Preventive	Install a filtration system before the solenoid valve.



7. APPENDIX A: LEVEL SWITCH TEST

E&I instrumentation technician conducted a test on the CCEG daily tanks switches. The objective is to determine the switches are in working condition.

The test's measure of success is confirming the level switches send signal to the PLC at applicable conditions.

The manual supply valve is closed during the emptying test. Results are in Table 7.

Table 7: E&I Test with Tank Emptying

Contact		Compliant	Notes
95% (71F-1 & 71F-2)	Opens	Yes	<ul style="list-style-type: none">Relay REL 1 OFF; andRelay REL 2 OFF
85% (71F-4)	Closes	Yes	<ul style="list-style-type: none">Voltage at TB3
40% (71F-3)	Closes	Yes	<ul style="list-style-type: none">Contactor C1 ON; andSolenoid SOL 2 ON
25% (71F-2)	Closes	Yes	<ul style="list-style-type: none">Relay R1 ON;Contactor C1 OFF; andCCEG low fuel level light ON
10% (71F-1)	Closes	Yes	<ul style="list-style-type: none">CCEG very low fuel level light ON

The manual supply valve is open during the filling test. Results are in Table 8.

Table 8: E&I Test with Tank Filling

Contact		Compliant	Notes
10% (71F-1)	Opens	Yes	<ul style="list-style-type: none">CCEG very low fuel level light OFF
25% (71F-2)	Opens	Yes	<ul style="list-style-type: none">CCEG low fuel level light OFF
40% (71F-3)	Opens	Yes	<ul style="list-style-type: none">Contactor C1 ON
85% (71F-4)	Opens	Yes	<ul style="list-style-type: none">Contactor C1 OFF; andSolenoid SOL 2 OFF

8. APPENDIX B: PICTURES



Figure 7: Aerial Spill Area



Figure 8: Spill Site



Figure 9: Digging Containment Trenches



Figure 10: Spill Site with Containment Trenches



Figure 11: CCEG Daily Tanks Vent Missing Piping to Main Camp Complex Tank



FILE NO. 65-425-205-202.DWG



Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR 09-28-2020		REPORT TIME 16:00		<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
	B	OCCURRENCE DATE: MONTH – DAY – YEAR 09-27-2020		OCCURRENCE TIME 17:00		
C		LAND USE PERMIT NUMBER (IF APPLICABLE) KVPL11D01			WATER LICENCE NUMBER (IF APPLICABLE) 2AM-MEL1631	
	D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Meliadine Gold Project			REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN	
E		LATITUDE DEGREES 63 MINUTES 1 SECONDS 35			LONGITUDE DEGREES 92 MINUTES 12 SECONDS 37	
	F	RESPONSIBLE PARTY OR VESSEL NAME Agnico Eagle Mines Ltd.		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Meliadine, Rankin Inlet, Nunavut, X0C 0G0		
G		ANY CONTRACTOR INVOLVED None		CONTRACTOR ADDRESS OR OFFICE LOCATION N/A		
	H	PRODUCT SPILLED Hydrex 6240 coagulant		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 500L	U.N. NUMBER 3264	
I		SECOND PRODUCT SPILLED (IF APPLICABLE) N/A		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES N/A	U.N. NUMBER N/A	
	J	SPILL SOURCE Storage tote		SPILL CAUSE Punctured by equipment forks		AREA OF CONTAMINATION IN SQUARE METRES 200
K		FACTORS AFFECTING SPILL OR RECOVERY None		DESCRIBE ANY ASSISTANCE REQUIRED None		HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT Corrosive substance
	L	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS An equipment operator was attempting to transport a 3/4 full tote of coagulant from the SWTP when they accidentally punctured the bottom of the tote with the equipment forks. The operator was able to tip the tote onto its side to stop it from fully draining. The spill occurred just outside of the loading door of the SWTP.				
M		A backhoe was used to scrape the gravel and coagulant together to help soak it up. Contaminated material was packed into quatrex bags to be shipped south. The clean-up should be completed today. No water bodies were impacted by this spill. The nearest natural waterbody is 900m away.				
	N	A follow-up report will be issued after a closer investigation is completed. Reported by Sean Arruda, Environment Coordinator 819-759-3555 ext. 4603996 sean.arruda@agnicoeagle.com.				
O		REPORTED TO SPILL LINE BY Sean Arruda	POSITION EnvCoordinator	EMPLOYER AEM	LOCATION CALLING FROM Meliadine	TELEPHONE 8197593555
	P	ANY ALTERNATE CONTACT Terry Ternes	POSITION Env GeneralSuperviso	EMPLOYER AEM	ALTERNATE CONTACT Meliadine	ALTERNATE TELEPHONE 8197593555
REPORT LINE USE ONLY						
Q	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130	
	LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS		
LEAD AGENCY						
FIRST SUPPORT AGENCY						
SECOND SUPPORT AGENCY						
THIRD SUPPORT AGENCY						

Follow Up Report: #20-364

September 27th, 2020 – 500 L Hydrex 6240 Spill



AGNICO EAGLE
MELIADINE

The following information refers to a spill reported by Agnico Eagle Mines Ltd. September 27th 2020, and is being provided in accordance with:

- the Nunavut Water Board License 2AM-MEL1631 Water License, part H, item 8c
- the Government of Nunavut's, Environmental Protection Act subsection 5.1(a)

Description of Incident:

On September 27, 2020, shortly after 17:00, the Environment Department received a call requesting assistance in spill response at the SWTP. Upon arrival, the supervisor of the employee involved informed us that the equipment operating was attempting to transport a $\frac{3}{4}$ full tote of coagulant, did not use a spotter, and accidentally punctured the tote (Figure 1). The spill occurred directly outside of the SWTP loading doors (Figure 2) at the following coordinates:

63°1'35"N, 92°12'37"W



Figure 1: Punctured tote with remaining liquid inside.



Figure 2: Location of the spill on the exterior loading ramp area of the SWTP.

Spill Response & Cleanup

Upon puncturing the tote, the operator acted quickly by using the loader to tip the tote onto its side, preventing it from emptying completely (Figure 3). Spill pads and absorbent booms were deployed in an initial attempt to prevent the spill from spreading (Figure 4). The material itself was a sludge-like consistency and did not absorb deep into the compacted pad. However, the spill occurred on a sloped area, so the material spread out over a large surface area.

Workers manually began to shovel material into an empty tote, until a back-hoe arrived (Figure 4). The back-hoe was then used to scrape up a few inches of gravel/sand which helped to soak into the coagulant. The pile of contaminated gravel was then transferred into approximately 25 quatrex bags which will be shipped south as hazardous waste.



Figure 3: Initial effort to contain the spilled material from flowing away from the source.

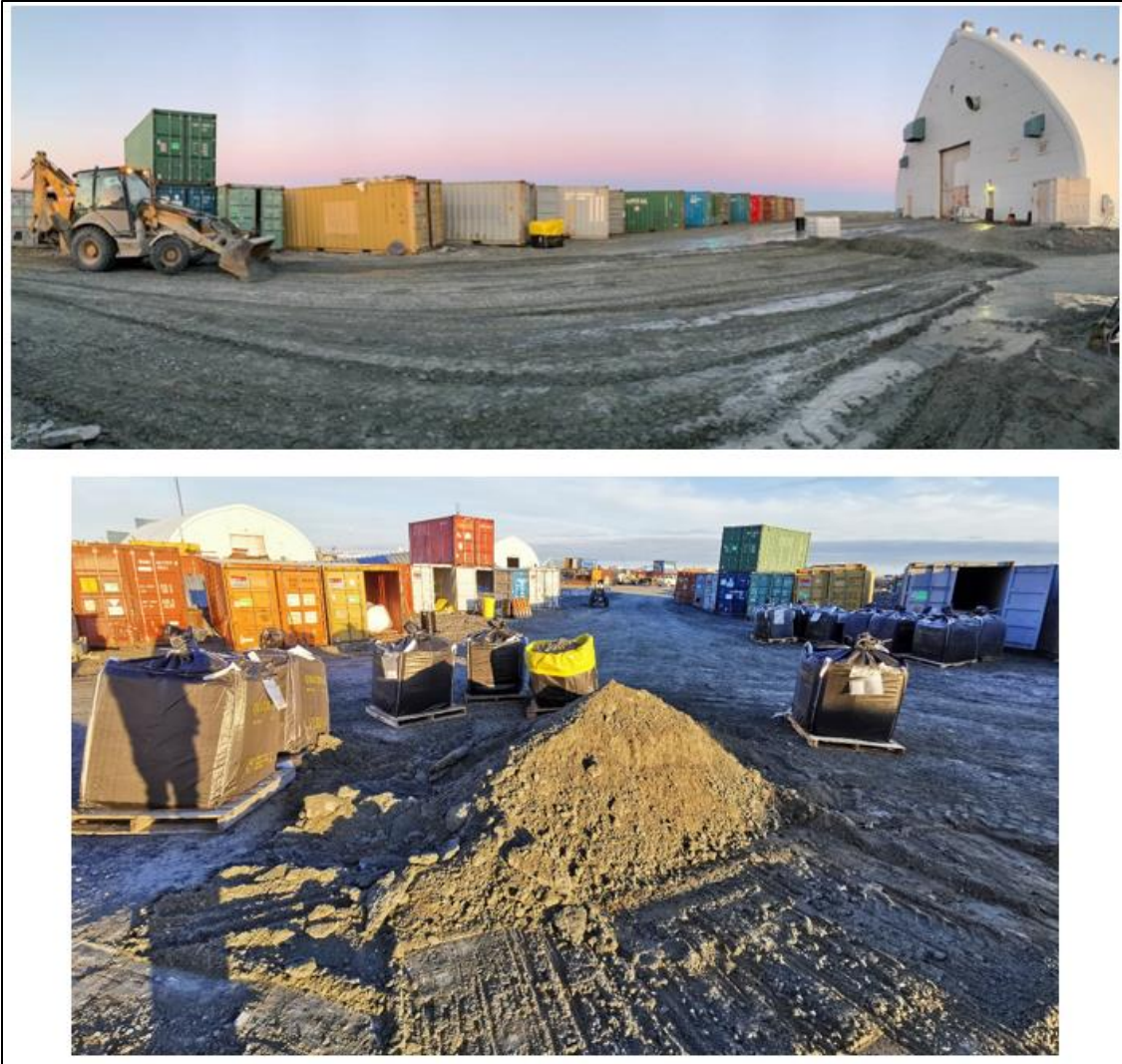


Figure 4: Spilled material and contaminated gravel removed.

Cause of Incident and Corrective Measures

The root cause of the incident was the failure of the operator to follow the procedure of using a spotter to ensure the proper alignment of the forks. In the last year Meliadine has been pushing for the all departments to ensure that a spotter is used whenever forked equipment is required to transport hazardous materials (liquids, powders, etc.). Training material has been created and communicated to workers through toolbox meetings, and a site-wide reminder has been sent out following this most recent incident. Another round of toolbox meetings will be held as an additional reminder of the importance of the use of a spotter.



Sean Arruda | Environmental Coordinator

sean.arruda@agnicoeagle.com | Direct 819.759.3555 x4603996 |

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agnicoeagle.com    



Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR 10-03-2020	REPORT TIME 15:30	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER _____
B	OCCURRENCE DATE: MONTH – DAY – YEAR Unknown	OCCURRENCE TIME Unknown			
C	LAND USE PERMIT NUMBER (IF APPLICABLE) KVPL11D01	WATER LICENCE NUMBER (IF APPLICABLE) 2AM-MEL1631			
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Meliadine Gold Project		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES 63 MINUTES 2 SECONDS 34		LONGITUDE DEGREES 92 MINUTES 15 SECONDS 26		
F	RESPONSIBLE PARTY OR VESSEL NAME Agnico Eagle Mines Ltd.	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Meliadine, Rankin Inlet, Nunavut, X0C 0G0			
G	ANY CONTRACTOR INVOLVED None	CONTRACTOR ADDRESS OR OFFICE LOCATION N/A			
H	PRODUCT SPILLED Ammonium Nitrate	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 400kg	U.N. NUMBER 1942		
	SECOND PRODUCT SPILLED (IF APPLICABLE) N/A	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES N/A	U.N. NUMBER N/A		
I	SPILL SOURCE Seacan	SPILL CAUSE Punctured by equipment	AREA OF CONTAMINATION IN SQUARE METRES 5		
J	FACTORS AFFECTING SPILL OR RECOVERY None	DESCRIBE ANY ASSISTANCE REQUIRED None	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT None		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS A seacan containing bags of ammonium nitrate was punctured by heavy equipment causing approximately 400kg of product to be released to the ground. The damage was recently discovered and it is thought to have occurred during snow removal earlier this year. Spilled material would have been collected during snow removal, and transported to a snow storage area. No water bodies were impacted by this spill. The nearest natural waterbody (B7) is 500 m away. A follow-up report will be issued after a closer investigation is completed. Reported by Dan Gorton, Environment Coordinator 819-759-3555 ext. 4603996 dan.gorton@agnicoeagle.com.				
L	REPORTED TO SPILL LINE BY Dan Gorton	POSITION Env Coordinator	EMPLOYER AEM	LOCATION CALLING FROM Meliadine	TELEPHONE 8197593555
M	ANY ALTERNATE CONTACT Terry Ternes	POSITION Env GeneralSuperviso	EMPLOYER AEM	ALTERNATE CONTACT Meliadine	ALTERNATE TELEPHONE 8197593555
REPORT LINE USE ONLY					
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS	
LEAD AGENCY					
FIRST SUPPORT AGENCY					
SECOND SUPPORT AGENCY					
THIRD SUPPORT AGENCY					

Follow Up Report: #20-379

October 3rd 2020, Ammonium Nitrate Spill



The following information refers to spill 20-379 reported by Agnico Eagle Mines Ltd. October 3rd 2020, and is being provided in accordance with:

- the Nunavut Water Board License 2AM-MEL1631 Water License, part H, item 8c
- the Government of Nunavut's, Environmental Protection Act subsection 5.1(a)

Description of Incident:

A seacan containing bags of ammonium nitrate was punctured by heavy equipment causing approximately 350 kg of product to be released to the ground. The spill was initially reported as 400 kg. However, after weighing the remaining product inside the seacan, a more accurate estimate of 350 kg was calculated. The damage was discovered October 2nd and it is thought to have occurred during snow removal earlier this year.

No water bodies were impacted by this spill. The nearest natural waterbody (B7) is 500 m away. The coordinates of the spill are 63° 2'34.15"N, 92°15'26.20"W (Figure 1).



Figure 1: Location of 350 kg Ammonium Nitrate spill and proximity to water bodies.

Spill Response & Cleanup:

Emulsion plant personnel determined that there was no risk of ignition prior to responding to the spill. The product spilled was Superprill™ Prilled Ammonium Nitrate (UN1942), which is not sensitive to mechanical impact or static discharge. Any spilled material would have likely been collected during snow removal and transported to a snow storage area. Material spilled inside the seacan was collected for use. Potentially contaminated gravel was scraped up using a bobcat and disposed of as hazmat. The damaged seacan was emptied and will no longer be used.



Figure 2: Damaged seacan containing Ammonium Nitrate.



Figure 3: Damaged Ammonium Nitrate bag and spilled product removed from seacan.

Corrective Measures

The Environment Department held a follow-up meeting with the Energy and Infrastructure Department and Dyno Nobel (Emulsion Contractor) to discuss the cause and corrective measures. Equipment operators responsible for clearing snow will be reminded of the importance of following the snow management plan and standard operating procedures prior to resuming snow removal.



Dan Gorton | Environmental Coordinator

dan.gorton@agnicoeagle.com | Direct 819.759.3555 x4603996 |

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Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR 10-18-2020		REPORT TIME 15:30		<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
	B	OCCURRENCE DATE: MONTH – DAY – YEAR 10-17-2020		OCCURRENCE TIME 16:00		
C		LAND USE PERMIT NUMBER (IF APPLICABLE) KVPL11D01			WATER LICENCE NUMBER (IF APPLICABLE) 2AM-MEL1631	
	D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Meliadine Gold Project			REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN	
E		LATITUDE DEGREES 63 MINUTES 1 SECONDS 51			LONGITUDE DEGREES 92 MINUTES 12 SECONDS 43	
	F	RESPONSIBLE PARTY OR VESSEL NAME Agnico Eagle Mines Ltd.		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Meliadine, Rankin Inlet, Nunavut, X0C 0G0		
G		ANY CONTRACTOR INVOLVED None		CONTRACTOR ADDRESS OR OFFICE LOCATION N/A		
	H	PRODUCT SPILLED Diesel Exhaust Fluid (Urea)		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 800L	U.N. NUMBER N/A	
I		SECOND PRODUCT SPILLED (IF APPLICABLE) N/A		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES N/A	U.N. NUMBER N/A	
	J	SPILL SOURCE Storage Tote		SPILL CAUSE Punctured by equipment		AREA OF CONTAMINATION IN SQUARE METRES 5
K		FACTORS AFFECTING SPILL OR RECOVERY None		DESCRIBE ANY ASSISTANCE REQUIRED None		HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT None
	L	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS A tote containing Diesel Exhaust Fluid (Urea) was punctured and approximately 800L was spilled onto one of the warehouse laydown pads. While moving a tote, the machines's forks were longer than the tote itself which lead to the puncturing of an adjacent tote. No water bodies were impacted by this spill. The nearest natural waterbody (H1) is 850 m away. A follow-up report will be issued after a closer investigation is completed. Reported by Sean Arruda, Environment Coordinator 819-759-3555 ext. 4603996 sean.arruda@agnicoeagle.com.				
M		REPORTED TO SPILL LINE BY Sean Arruda	POSITION Env Coordinator	EMPLOYER AEM	LOCATION CALLING FROM Meliadine	TELEPHONE 8197593555
	N	ANY ALTERNATE CONTACT Terry Ternes	POSITION Env GeneralSuperviso	EMPLOYER AEM	ALTERNATE CONTACT Meliadine	ALTERNATE TELEPHONE 8197593555
REPORT LINE USE ONLY						
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130	
	LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS		
LEAD AGENCY						
FIRST SUPPORT AGENCY						
SECOND SUPPORT AGENCY						
THIRD SUPPORT AGENCY						

Follow Up Report: #20-403

October 17th, 2020, Diesel Exhaust Fluid Spill



The following information refers to spill 20-403 reported by Agnico Eagle Mines Ltd. October 18th, 2020, and is being provided in accordance with:

- the Nunavut Water Board License 2AM-MEL1631 Water License, part H, item 8c

Description of Incident:

A tote containing Diesel Exhaust Fluid (Urea) was punctured and approximately 800L was spilled onto a warehouse laydown pad. While moving a tote, the machine's forks were longer than the tote itself, which lead to the puncturing of an adjacent tote.

No water bodies were impacted by this spill. The nearest natural waterbody (H1) is 850 m away. The coordinates of the spill are 63° 01'51"N, 92°12'43"W (Figure 1).



Figure 1: Location of 800 L Urea Spill and Proximity to Water Bodies

Spill Response & Cleanup:

After the tote was punctured, the operator quickly flipped it upside down to stop the entire tote emptying onto the ground. As the spill occurred on an industrial pad in the middle of site, any migration of the product would be contained within the pad. According to the SDS, urea is low risk to the environment. As the risk to the environment was very low, it was determined a recovery attempt would not be made in a high traffic area.



Figure 1: Punctured Urea Tote



Figure 2: Tote Flipped to Reduce Volume of Urea Released

Cause of Incident and Corrective Measures



The root cause of the incident was the operator failing to follow the procedure, which requires the use of a spotter to ensure proper alignment of the forks. As a corrective measure, the procedure mandating a spotter for the handling of totes, drums and chemical bulk bags is being updated and re-distributed to all departments. The updated procedure will be added to forklift training provided by Meliadine's training department. Departments who have operators using forked equipment are meeting to discuss the procedure.



Bethany Hodgins | Environment Technician

bethany.hodgins@agnicoeagle.com | Direct 819.759.3555 x4603202 |

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FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR 10-20-2020	REPORT TIME 17:00	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER _____
B	OCCURRENCE DATE: MONTH – DAY – YEAR 10-20-2020	OCCURRENCE TIME 10:30			
C	LAND USE PERMIT NUMBER (IF APPLICABLE) KVPL11D01	WATER LICENCE NUMBER (IF APPLICABLE) 2BB-MEL1424			
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Meliadine Gold Project		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES 63 MINUTES 1 SECONDS 43		LONGITUDE DEGREES 92 MINUTES 10 SECONDS 10		
F	RESPONSIBLE PARTY OR VESSEL NAME Agnico Eagle Mines Ltd.	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Meliadine, Rankin Inlet, Nunavut, X0C 0G0			
G	ANY CONTRACTOR INVOLVED Audet & Knight	CONTRACTOR ADDRESS OR OFFICE LOCATION 140, RUE JACQUES-BIBEAU, ROUYN-NORANDA, QC			
H	PRODUCT SPILLED Treated Sewage Water	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 3000L	U.N. NUMBER N/A		
	SECOND PRODUCT SPILLED (IF APPLICABLE) N/A	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES N/A	U.N. NUMBER N/A		
I	SPILL SOURCE Retention Tank	SPILL CAUSE Operator Error	AREA OF CONTAMINATION IN SQUARE METRES 500		
J	FACTORS AFFECTING SPILL OR RECOVERY Location of spill	DESCRIBE ANY ASSISTANCE REQUIRED None	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT None		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS At 11:00 Environment personnel responded to a call regarding a release of treated water from the sewage treatment plant retention tank at the exploration camp. The operator of the water truck failed to close the outlet valve on the truck after his previous discharge location. Upon returning to the retention tank to retrieve another load, pumping was initiated and the operator sat in the truck to wait for it to fill. Five minutes later the operator noticed the issue, and shut off the pump. A regular weekly sample of this water was taken the morning prior to this occurrence. Sample results from recent weeks have all been below the effluent quality limits established in Part D, Section 11 of the 2BB-MEL1424 license. A follow-up report will be issued after a more in depth investigation is completed. Reported by Sean Arruda, Environment Coordinator 819-759-3555 ext. 4603996 sean.arruda@agnicoeagle.com				
L	REPORTED TO SPILL LINE BY Sean Arruda	POSITION Env Coordinator	EMPLOYER AEM	LOCATION CALLING FROM Meliadine	TELEPHONE 8197593555
M	ANY ALTERNATE CONTACT Robin Allard	POSITION Env Gen Supervisor	EMPLOYER AEM	ALTERNATE CONTACT LOCATION Meliadine	ALTERNATE TELEPHONE 8197593555
REPORT LINE USE ONLY					
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS	
LEAD AGENCY					
FIRST SUPPORT AGENCY					
SECOND SUPPORT AGENCY					
THIRD SUPPORT AGENCY					

Follow Up Report: #20-405

October 20th, 2020 – 3000L Treated Sewage Water

The following information refers to a spill reported by Agnico Eagle Mines Ltd. October 20th, 2020, and is being provided in accordance with:

- the Nunavut Water Board License 2BB-MEL1424 Water License, part H, item 4c
- Subsection 38(7) of the Fisheries Act

Description of Incident

At 11:00 am Environment personnel responded to a call regarding release of treated water from the sewage treatment plant retention tank at the exploration camp. The operator of the water truck failed to close the outlet valve on the truck after his previous discharge to CP1. Upon returning to the retention tank to retrieve another load, pumping was initiated, and the operator sat in the truck to wait for it to fill. Five minutes later, the operator noticed the issue and shut off the pump. When the Environment Department arrived, they observed that a portion of the water had made its way into Meliadine Lake. A sample of this water was taken on 2020-10-19, the results (provided in Appendix A) were below the effluent quality limits established in Part D, Section 11 of the 2BB-MEL1424 license. The coordinates of the spill were 63° 01'43"N, 92°10'10"W (Figure 1).



Figure 1: Location of Treated Water Spill

Spill Response & Cleanup

The water from the sewage treatment plant is sampled on a weekly basis (sample location MEL-7). The results from previous weeks (water chemistry and fecal coliforms) had all been below the effluent quality limits established in Part D, Section 11 of the 2BB-MEL1424 license. As this water met discharge requirements, excavating the tundra or building berms to recover a portion of the water would have caused unnecessary damage. The water was permitted to disperse naturally.



Figure 2: Treated Water Migrating Downhill

Cause of Incident and Corrective Measures

The root cause of this spill was human error, the drain valve on the water truck should have been closed before the truck was filled. The spill volume was increased due to the operator returning to the cab of the truck to warm up while the truck was filling.

To ensure this event is not repeated, multiple corrective actions are being put into place. A new procedure will be written for the task and reviewed with the workers. A heated shelter is to be installed where the operators can stand and monitor the truck loading. Finally, the pad will be extended to allow better access for trucks. The pad extension will be graded at an angle to direct any water in the area towards exploration camp and away from Meliadine lake.



Bethany Hodgins | Environment Technician

bethany.hodgins@agnicoeagle.com | Direct 819.759.3555 x4603202 |

Agnico Eagle Mines Limited - Meliadine Mine, Suite 879 - Rankin Inlet, Nunavut, Canada X0C 0G0

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Sent from Meliadine

Appendix A – Water Sample Results



900, 5th Avenue
Val-d'Or (Quebec) J9P 1B9
Phone: 819 874-0350
Toll Free: 1 877 326-8690
www.h2lab.ca

Certificate # : VD06635
Client # : 1353
Client Reference # : MEL-7

CERTIFICATE OF ANALYSIS

Agnico Eagle Meliadine
Meliadine
Rankin Inlet
Nunavut X0C 0A0

Received on:	2020/10/20
Sampled on:	2020/10/19 07:00
Matrix:	Waste Water
Sampling site code:	MEL-7
Customer information	Rush 2 JRS
Project #:	Meliadine Project
Order #:	OL-664692

Samples: MEL-7

Sampler : RS/AL

The sample's appreciation and conformity towards established norms, if applicable, is based and limited to analyzed parameters. This report can't be reproduced, unless in whole, without prior written authorization from the laboratory. The results are related only to samples submitted for testing.



Signataire: Rouyn-Noranda



900, 5th Avenue
Val-d'Or (Quebec) J9P 1B9
Phone: 819 874-0350
Toll Free: 1 877 326-8690
www.h2lab.ca

Certificate # : VD06635
Client # : 1353
Client Reference # : MEL-7

CERTIFICATE OF ANALYSIS

RESULTS

Laboratory ID		102859
Client ID		MEL-7
Matrix		Waste Water
Sampling site		MEL-7
Sampled on	unit	2020/10/19 07:00
B.H.A.A. a 2	UFC/m L	1 364
Fecal coliforms a 2	UFC/1 00 mL	2
Total coliforms a 2	UFC/1 00 mL	290
Atypical colonies 2	UFC/1 00 mL	270
E.coli a 2	UFC/1 00 mL	< 2



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Toll Free: 1 877 326-8690
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Certificate # : VD06635
Client # : 1353
Client Reference # : MEL-7

CERTIFICATE OF ANALYSIS

Quality control

Parameter (method)	*LDR	Unit	Blank	Standard				Duplicate		Analyzed on
				Name	Value	Expected	Interval	#1	#2	
B.H.A.A. (M-BHAA-1.0) a	0	UFC/mL	--	--	--	--	--	--	--	2020-10-21
Fecal coliforms (M-COLI-1.0) a	0	UFC/100 mL	--	--	--	--	--	--	--	2020-10-21
E.coli (M-COLI-1.0) a	0	UFC/100 mL	--	--	--	--	--	--	--	2020-10-21
Total coliforms (M-COLI-2.0) a	0	UFC/100 mL	--	--	--	--	--	--	--	2020-10-21
Atypical colonies (M-COLI-2.0) 2	0	UFC/100 mL	--	--	--	--	--	--	--	2020-10-21

Legend :

a : Accredited parameter **UFC** : Colony forming unit **2** : analysis made by H2Lab Laboratory at Rouyn-Noranda ***LDR** : Limit of detection reported

The sample's appreciation and conformity towards established norms, if applicable, is based and limited to analyzed parameters. This report can't be reproduced, unless in whole, without prior written authorization from the laboratory. The results are related only to samples submitted for testing.

END OF CERTIFICATE



Your P.O. #: OL-891917
 Site Location: MELIADINE
 Your C.O.C. #: na

Attention: Reporting

Agnico-Eagle
 Meliadine
 Meliadine Mine
 Rankin Inlet, NU
 CANADA X0C 0G0

Report Date: 2020/10/29
 Report #: R6390439
 Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C0R7767

Received: 2020/10/21, 13:34

Sample Matrix: Waste Water
 # Samples Received: 12

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity (1)	12	N/A	2020/10/24	CAM SOP-00448	SM 23 2320 B m
Biochemical Oxygen Demand (BOD) (1)	9	2020/10/23	2020/10/28	CAM SOP-00427	SM 23 5210B m
Chemical Oxygen Demand (1)	9	N/A	2020/10/26	CAM SOP-00416	SM 23 5220 D m
Conductivity (1)	12	N/A	2020/10/24	CAM SOP-00414	SM 23 2510 m
Total Ammonia-N (1)	8	N/A	2020/10/28	CAM SOP-00441	USGS I-2522-90 m
Total Ammonia-N (1)	1	N/A	2020/10/29	CAM SOP-00441	USGS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1, 2)	8	N/A	2020/10/27	CAM SOP-00440	SM 23 4500-NO3I/NO2B
Nitrate (NO3) and Nitrite (NO2) in Water (1, 2)	1	N/A	2020/10/28	CAM SOP-00440	SM 23 4500-NO3I/NO2B
Total Oil and Grease (1)	3	2020/10/26	2020/10/26	CAM SOP-00326	EPA1664B m, SM5520B m
pH (1)	12	2020/10/23	2020/10/24	CAM SOP-00413	SM 4500H+ B m
Total Kjeldahl Nitrogen in Water (1)	7	2020/10/26	2020/10/27	CAM SOP-00938	OMOE E3516 m
Total Kjeldahl Nitrogen in Water (1)	2	2020/10/26	2020/10/28	CAM SOP-00938	OMOE E3516 m
Total Phosphorus (Colourimetric) (1)	9	2020/10/26	2020/10/26	CAM SOP-00407	SM 23 4500 P B H m
Total Suspended Solids (1)	5	2020/10/24	2020/10/26	CAM SOP-00428	SM 23 2540D m
Low Level Total Suspended Solids (1)	7	2020/10/23	2020/10/26	CAM SOP-00428	SM 23 2540D m
Volatile Suspended Solids (1)	5	2020/10/24	2020/10/26	CAM SOP-00428	SM 23 2540 m
Low Level Volatile Suspended Solids (1)	7	2020/10/23	2020/10/26	CAM SOP-00428	SM 23 2540

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs 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 BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs 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.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs 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 BV Labs, unless otherwise agreed in writing. BV Labs is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.



Your P.O. #: OL-891917
Site Location: MELIADINE
Your C.O.C. #: na

Attention: Reporting

Agnico-Eagle
Meliadine
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2020/10/29
Report #: R6390439
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C0R7767

Received: 2020/10/21, 13:34

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 BV Labs, results relate to the supplied samples tested.

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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 Laboratories Mississauga

(2) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.

Encryption Key

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

Katherine Szozda, Project Manager

Email: Katherine.Szozda@bvlabs.com

Phone# (613)274-0573 Ext:7063633

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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.



BUREAU
VERITAS

BV Labs Job #: COR7767
Report Date: 2020/10/29

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

RESULTS OF ANALYSES OF WASTE WATER

BV Labs ID		NYM342			NYM342		
Sampling Date		2020/10/19 07:00			2020/10/19 07:00		
COC Number		na			na		
	UNITS	H20I-STP-FINAL	RDL	QC Batch	H20I-STP-FINAL Lab-Dup	RDL	QC Batch
Inorganics							
Total Ammonia-N	mg/L	0.21	0.050	7020619			
Total BOD	mg/L	<2	2	7016359	<2	2	7016359
Total Chemical Oxygen Demand (COD)	mg/L	24	4.0	7020198	22	4.0	7020198
Conductivity	umho/cm	870	1.0	7017287			
Total Kjeldahl Nitrogen (TKN)	mg/L	<2.0 (1)	2.0	7020226			
pH	pH	7.15		7017291			
Total Phosphorus	mg/L	6.4	0.020	7020043			
Total Suspended Solids	mg/L	<1	1	7016824			
Volatile Suspended Solids	mg/L	<1	1	7016831			
Alkalinity (Total as CaCO ₃)	mg/L	35	1.0	7017281			
Nitrite (N)	mg/L	0.022	0.010	7018596			
Nitrate (N)	mg/L	47.7	0.50	7018596			
Nitrate + Nitrite (N)	mg/L	47.7	0.50	7018596			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate (1) Due to a high concentration of NOX, the sample required dilution. Detection limits were adjusted accordingly.							



BUREAU
VERITAS

BV Labs Job #: COR7767

Report Date: 2020/10/29

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: RS

RESULTS OF ANALYSES OF WASTE WATER

BV Labs ID		NYM343			NYM344		
Sampling Date		2020/10/19 07:00			2020/10/19 07:00		
COC Number		na			na		
	UNITS	H2OI-STP-FINAL DUP	RDL	QC Batch	H2OI-STP-FINAL FB	RDL	QC Batch
Inorganics							
Total Ammonia-N	mg/L	0.096	0.050	7020619	0.14	0.050	7026794
Total BOD	mg/L	<2	2	7016359	<2	2	7016359
Total Chemical Oxygen Demand (COD)	mg/L	27	4.0	7020198	<4.0	4.0	7020198
Conductivity	umho/cm	870	1.0	7017287	1.3	1.0	7017287
Total Kjeldahl Nitrogen (TKN)	mg/L	2.4	2.0	7020226	<0.10	0.10	7020226
pH	pH	7.23		7017291	5.86		7017291
Total Phosphorus	mg/L	6.4	0.020	7020043	0.044	0.020	7020043
Total Suspended Solids	mg/L	<1	1	7016824	<1	1	7016824
Volatile Suspended Solids	mg/L	<1	1	7016831	<1	1	7016831
Alkalinity (Total as CaCO ₃)	mg/L	34	1.0	7017281	<1.0	1.0	7017281
Nitrite (N)	mg/L	0.023	0.010	7018596	<0.010	0.010	7018596
Nitrate (N)	mg/L	47.8	0.50	7018596	<0.10	0.10	7018596
Nitrate + Nitrite (N)	mg/L	47.8	0.50	7018596	<0.10	0.10	7018596
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							



BUREAU
VERITAS

BV Labs Job #: COR7767
Report Date: 2020/10/29

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

RESULTS OF ANALYSES OF WASTE WATER

BV Labs ID		NYM345	NYM346			NYM347		
Sampling Date		2020/10/19 06:25	2020/10/19 06:25			2020/10/19 06:25		
COC Number		na	na			na		
	UNITS	H2OI-STP-IN	H2OI-STP-IN DUP	RDL	QC Batch	H2OI-STP-IN FB	RDL	QC Batch
Inorganics								
Total Ammonia-N	mg/L	51	51	0.25	7020619	<0.050	0.050	7020619
Total BOD	mg/L	520	490	2	7016359	<2	2	7016359
Total Chemical Oxygen Demand (COD)	mg/L	540	620	32	7020198	<4.0	4.0	7020198
Conductivity	umho/cm	930	920	1.0	7017287	1.3	1.0	7017287
Total Kjeldahl Nitrogen (TKN)	mg/L	63	65	2.0	7020226	<0.10	0.10	7020226
pH	pH	7.43	7.44		7017291	5.82		7017291
Total Phosphorus	mg/L	9.1	9.3	0.040	7020043	0.042	0.020	7020043
Total Suspended Solids	mg/L	420	300	25	7018887	<1	1	7016824
Volatile Suspended Solids	mg/L	300	220	50	7018900	<1	1	7016831
Alkalinity (Total as CaCO ₃)	mg/L	260	260	1.0	7017281	1.2	1.0	7017281
Nitrite (N)	mg/L	0.016	0.011	0.010	7018596	<0.010	0.010	7018596
Nitrate (N)	mg/L	<0.10	<0.10	0.10	7018596	<0.10	0.10	7018596
Nitrate + Nitrite (N)	mg/L	<0.10	<0.10	0.10	7018596	<0.10	0.10	7018596
RDL = Reportable Detection Limit QC Batch = Quality Control Batch								



BUREAU
VERITAS

BV Labs Job #: COR7767
Report Date: 2020/10/29

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

RESULTS OF ANALYSES OF WASTE WATER

BV Labs ID		NYM347			NYM348	NYM349		
Sampling Date		2020/10/19 06:25			2020/10/19 07:10	2020/10/19 07:10		
COC Number		na			na	na		
	UNITS	H2OI-STP-IN FB Lab-Dup	RDL	QC Batch	STP LIQUOR MIXED	STP LIQUOR MIXED DUP	RDL	QC Batch

Inorganics								
Conductivity	umho/cm				920	920	1.0	7017287
pH	pH				7.52	7.53		7017291
Total Suspended Solids	mg/L				13000	12000	100	7018887
Volatile Suspended Solids	mg/L				8000	7900	100	7018900
Alkalinity (Total as CaCO ₃)	mg/L				240	240	1.0	7017281
Nitrite (N)	mg/L	<0.010	0.010	7018596				
Nitrate (N)	mg/L	<0.10	0.10	7018596				
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7018596				

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

BV Labs ID		NYM350			NYM350		
Sampling Date		2020/10/19 07:10			2020/10/19 07:10		
COC Number		na			na		
	UNITS	STP LIQUOR MIXED FB	RDL	QC Batch	STP LIQUOR MIXED FB Lab-Dup	RDL	QC Batch

Inorganics							
Conductivity	umho/cm	1.2	1.0	7017287			
pH	pH	5.82		7017291			
Total Suspended Solids	mg/L	<10	10	7018887	<10	10	7018887
Volatile Suspended Solids	mg/L	<10	10	7018900	<10	10	7018900
Alkalinity (Total as CaCO ₃)	mg/L	1.4	1.0	7017281			

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate



BUREAU
VERITAS

BV Labs Job #: COR7767

Report Date: 2020/10/29

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: RS

RESULTS OF ANALYSES OF WASTE WATER

BV Labs ID		NYM351		NYM352			NYM352		
Sampling Date		2020/10/19 06:58		2020/10/19 06:58			2020/10/19 06:58		
COC Number		na		na			na		
	UNITS	MEL-7	QC Batch	MEL-7 DUP	RDL	QC Batch	MEL-7 DUP Lab-Dup	RDL	QC Batch

Inorganics									
Total Ammonia-N	mg/L	12	7020619	12	0.050	7020619			
Total BOD	mg/L	6	7016359	5	2	7016359			
Total Chemical Oxygen Demand (COD)	mg/L	66	7020198	67	4.0	7020198			
Conductivity	umho/cm	510	7017287	510	1.0	7017287			
Total Kjeldahl Nitrogen (TKN)	mg/L	13	7020226	13	2.0	7020226			
pH	pH	7.48	7017291	7.50		7017291			
Total Phosphorus	mg/L	7.9	7020043	8.1	0.020	7020043			
Total Suspended Solids	mg/L	6	7016824	6	1	7016824	6	1	7016824
Volatile Suspended Solids	mg/L	6	7016831	6	1	7016831	6	1	7016831
Alkalinity (Total as CaCO ₃)	mg/L	66	7017281	66	1.0	7017281			
Nitrite (N)	mg/L	0.469	7018596	0.297	0.010	7018596			
Nitrate (N)	mg/L	10.7	7018596	11.0	0.10	7018596			
Nitrate + Nitrite (N)	mg/L	11.1	7018596	11.3	0.10	7018596			
Petroleum Hydrocarbons									
Total Oil & Grease	mg/L	0.80	7019659	0.60	0.50	7019659			
RDL = Reportable Detection Limit									
QC Batch = Quality Control Batch									
Lab-Dup = Laboratory Initiated Duplicate									



BUREAU
VERITAS

BV Labs Job #: COR7767
Report Date: 2020/10/29

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

RESULTS OF ANALYSES OF WASTE WATER

BV Labs ID		NYM353		
Sampling Date		2020/10/19 06:58		
COC Number		na		
	UNITS	MEL-7 FB	RDL	QC Batch
Inorganics				
Total Ammonia-N	mg/L	<0.050	0.050	7020619
Total BOD	mg/L	<2	2	7016359
Total Chemical Oxygen Demand (COD)	mg/L	<4.0	4.0	7020198
Conductivity	umho/cm	1.2	1.0	7017287
Total Kjeldahl Nitrogen (TKN)	mg/L	0.38	0.10	7020226
pH	pH	5.88		7017291
Total Phosphorus	mg/L	0.054	0.020	7020043
Total Suspended Solids	mg/L	<1	1	7016824
Volatile Suspended Solids	mg/L	<1	1	7016831
Alkalinity (Total as CaCO ₃)	mg/L	<1.0	1.0	7017281
Nitrite (N)	mg/L	<0.010	0.010	7018596
Nitrate (N)	mg/L	<0.10	0.10	7018596
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7018596
Petroleum Hydrocarbons				
Total Oil & Grease	mg/L	0.90	0.50	7019659
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				



BV Labs Job #: COR7767
Report Date: 2020/10/29

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

TEST SUMMARY

BV Labs ID: NYM342
Sample ID: H2OI-STP-FINAL
Matrix: Waste Water

Collected: 2020/10/19
Shipped:
Received: 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7017281	N/A	2020/10/24	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7016359	2020/10/23	2020/10/28	Navjot Kaur Gill
Chemical Oxygen Demand	SPEC	7020198	N/A	2020/10/26	Nimarta Singh
Conductivity	AT	7017287	N/A	2020/10/24	Surinder Rai
Total Ammonia-N	LACH/NH4	7020619	N/A	2020/10/28	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7018596	N/A	2020/10/27	Chandra Nandlal
pH	AT	7017291	2020/10/23	2020/10/24	Surinder Rai
Total Kjeldahl Nitrogen in Water	SKAL	7020226	2020/10/26	2020/10/27	Louise Harding
Total Phosphorus (Colourimetric)	LACH/P	7020043	2020/10/26	2020/10/26	Shivani Shivani
Low Level Total Suspended Solids	BAL	7016824	2020/10/23	2020/10/26	Massarat Jan
Low Level Volatile Suspended Solids	BAL	7016831	2020/10/23	2020/10/26	Massarat Jan

BV Labs ID: NYM342 Dup
Sample ID: H2OI-STP-FINAL
Matrix: Waste Water

Collected: 2020/10/19
Shipped:
Received: 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Biochemical Oxygen Demand (BOD)	DO	7016359	2020/10/23	2020/10/28	Navjot Kaur Gill
Chemical Oxygen Demand	SPEC	7020198	N/A	2020/10/26	Nimarta Singh

BV Labs ID: NYM343
Sample ID: H2OI-STP-FINAL DUP
Matrix: Waste Water

Collected: 2020/10/19
Shipped:
Received: 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7017281	N/A	2020/10/24	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7016359	2020/10/23	2020/10/28	Navjot Kaur Gill
Chemical Oxygen Demand	SPEC	7020198	N/A	2020/10/26	Nimarta Singh
Conductivity	AT	7017287	N/A	2020/10/24	Surinder Rai
Total Ammonia-N	LACH/NH4	7020619	N/A	2020/10/28	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7018596	N/A	2020/10/27	Chandra Nandlal
pH	AT	7017291	2020/10/23	2020/10/24	Surinder Rai
Total Kjeldahl Nitrogen in Water	SKAL	7020226	2020/10/26	2020/10/27	Louise Harding
Total Phosphorus (Colourimetric)	LACH/P	7020043	2020/10/26	2020/10/26	Shivani Shivani
Low Level Total Suspended Solids	BAL	7016824	2020/10/23	2020/10/26	Massarat Jan
Low Level Volatile Suspended Solids	BAL	7016831	2020/10/23	2020/10/26	Massarat Jan

BV Labs ID: NYM344
Sample ID: H2OI-STP-FINAL FB
Matrix: Waste Water

Collected: 2020/10/19
Shipped:
Received: 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7017281	N/A	2020/10/24	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7016359	2020/10/23	2020/10/28	Navjot Kaur Gill
Chemical Oxygen Demand	SPEC	7020198	N/A	2020/10/26	Nimarta Singh



BV Labs Job #: COR7767
Report Date: 2020/10/29

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

TEST SUMMARY

BV Labs ID: NYM344
Sample ID: H2OI-STP-FINAL FB
Matrix: Waste Water

Collected: 2020/10/19
Shipped:
Received: 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Conductivity	AT	7017287	N/A	2020/10/24	Surinder Rai
Total Ammonia-N	LACH/NH4	7026794	N/A	2020/10/29	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7018596	N/A	2020/10/27	Chandra Nandlal
pH	AT	7017291	2020/10/23	2020/10/24	Surinder Rai
Total Kjeldahl Nitrogen in Water	SKAL	7020226	2020/10/26	2020/10/28	Louise Harding
Total Phosphorus (Colourimetric)	LACH/P	7020043	2020/10/26	2020/10/26	Shivani Shivani
Low Level Total Suspended Solids	BAL	7016824	2020/10/23	2020/10/26	Massarat Jan
Low Level Volatile Suspended Solids	BAL	7016831	2020/10/23	2020/10/26	Massarat Jan

BV Labs ID: NYM345
Sample ID: H2OI-STP-IN
Matrix: Waste Water

Collected: 2020/10/19
Shipped:
Received: 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7017281	N/A	2020/10/24	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7016359	2020/10/23	2020/10/28	Navjot Kaur Gill
Chemical Oxygen Demand	SPEC	7020198	N/A	2020/10/26	Nimarta Singh
Conductivity	AT	7017287	N/A	2020/10/24	Surinder Rai
Total Ammonia-N	LACH/NH4	7020619	N/A	2020/10/28	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7018596	N/A	2020/10/27	Chandra Nandlal
pH	AT	7017291	2020/10/23	2020/10/24	Surinder Rai
Total Kjeldahl Nitrogen in Water	SKAL	7020226	2020/10/26	2020/10/27	Louise Harding
Total Phosphorus (Colourimetric)	LACH/P	7020043	2020/10/26	2020/10/26	Shivani Shivani
Total Suspended Solids	BAL	7018887	2020/10/24	2020/10/26	Margesh Majmunda
Volatile Suspended Solids	BAL	7018900	2020/10/24	2020/10/26	Margesh Majmunda

BV Labs ID: NYM346
Sample ID: H2OI-STP-IN DUP
Matrix: Waste Water

Collected: 2020/10/19
Shipped:
Received: 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7017281	N/A	2020/10/24	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7016359	2020/10/23	2020/10/28	Navjot Kaur Gill
Chemical Oxygen Demand	SPEC	7020198	N/A	2020/10/26	Nimarta Singh
Conductivity	AT	7017287	N/A	2020/10/24	Surinder Rai
Total Ammonia-N	LACH/NH4	7020619	N/A	2020/10/28	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7018596	N/A	2020/10/27	Chandra Nandlal
pH	AT	7017291	2020/10/23	2020/10/24	Surinder Rai
Total Kjeldahl Nitrogen in Water	SKAL	7020226	2020/10/26	2020/10/27	Louise Harding
Total Phosphorus (Colourimetric)	LACH/P	7020043	2020/10/26	2020/10/26	Shivani Shivani
Total Suspended Solids	BAL	7018887	2020/10/24	2020/10/26	Margesh Majmunda
Volatile Suspended Solids	BAL	7018900	2020/10/24	2020/10/26	Margesh Majmunda



BV Labs Job #: COR7767
Report Date: 2020/10/29

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

TEST SUMMARY

BV Labs ID: NYM347
Sample ID: H2OI-STP-IN FB
Matrix: Waste Water

Collected: 2020/10/19
Shipped:
Received: 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7017281	N/A	2020/10/24	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7016359	2020/10/23	2020/10/28	Navjot Kaur Gill
Chemical Oxygen Demand	SPEC	7020198	N/A	2020/10/26	Nimarta Singh
Conductivity	AT	7017287	N/A	2020/10/24	Surinder Rai
Total Ammonia-N	LACH/NH4	7020619	N/A	2020/10/28	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7018596	N/A	2020/10/27	Chandra Nandlal
pH	AT	7017291	2020/10/23	2020/10/24	Surinder Rai
Total Kjeldahl Nitrogen in Water	SKAL	7020226	2020/10/26	2020/10/28	Louise Harding
Total Phosphorus (Colourimetric)	LACH/P	7020043	2020/10/26	2020/10/26	Shivani Shivani
Low Level Total Suspended Solids	BAL	7016824	2020/10/23	2020/10/26	Massarat Jan
Low Level Volatile Suspended Solids	BAL	7016831	2020/10/23	2020/10/26	Massarat Jan

BV Labs ID: NYM347 Dup
Sample ID: H2OI-STP-IN FB
Matrix: Waste Water

Collected: 2020/10/19
Shipped:
Received: 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7018596	N/A	2020/10/27	Chandra Nandlal

BV Labs ID: NYM348
Sample ID: STP LIQUOR MIXED
Matrix: Waste Water

Collected: 2020/10/19
Shipped:
Received: 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7017281	N/A	2020/10/24	Surinder Rai
Conductivity	AT	7017287	N/A	2020/10/24	Surinder Rai
pH	AT	7017291	2020/10/23	2020/10/24	Surinder Rai
Total Suspended Solids	BAL	7018887	2020/10/24	2020/10/26	Margesh Majmunda
Volatile Suspended Solids	BAL	7018900	2020/10/24	2020/10/26	Margesh Majmunda

BV Labs ID: NYM349
Sample ID: STP LIQUOR MIXED DUP
Matrix: Waste Water

Collected: 2020/10/19
Shipped:
Received: 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7017281	N/A	2020/10/24	Surinder Rai
Conductivity	AT	7017287	N/A	2020/10/24	Surinder Rai
pH	AT	7017291	2020/10/23	2020/10/24	Surinder Rai
Total Suspended Solids	BAL	7018887	2020/10/24	2020/10/26	Margesh Majmunda
Volatile Suspended Solids	BAL	7018900	2020/10/24	2020/10/26	Margesh Majmunda



BV Labs Job #: COR7767
Report Date: 2020/10/29

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

TEST SUMMARY

BV Labs ID: NYM350
Sample ID: STP LIQUOR MIXED FB
Matrix: Waste Water

Collected: 2020/10/19
Shipped:
Received: 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7017281	N/A	2020/10/24	Surinder Rai
Conductivity	AT	7017287	N/A	2020/10/24	Surinder Rai
pH	AT	7017291	2020/10/23	2020/10/24	Surinder Rai
Total Suspended Solids	BAL	7018887	2020/10/24	2020/10/26	Margesh Majmunda
Volatile Suspended Solids	BAL	7018900	2020/10/24	2020/10/26	Margesh Majmunda

BV Labs ID: NYM350 Dup
Sample ID: STP LIQUOR MIXED FB
Matrix: Waste Water

Collected: 2020/10/19
Shipped:
Received: 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Suspended Solids	BAL	7018887	2020/10/24	2020/10/26	Margesh Majmunda
Volatile Suspended Solids	BAL	7018900	2020/10/24	2020/10/26	Margesh Majmunda

BV Labs ID: NYM351
Sample ID: MEL-7
Matrix: Waste Water

Collected: 2020/10/19
Shipped:
Received: 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7017281	N/A	2020/10/24	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7016359	2020/10/23	2020/10/28	Navjot Kaur Gill
Chemical Oxygen Demand	SPEC	7020198	N/A	2020/10/26	Nimarta Singh
Conductivity	AT	7017287	N/A	2020/10/24	Surinder Rai
Total Ammonia-N	LACH/NH4	7020619	N/A	2020/10/28	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7018596	N/A	2020/10/27	Chandra Nandlal
Total Oil and Grease	BAL	7019659	2020/10/26	2020/10/26	Francis Afonso
pH	AT	7017291	2020/10/23	2020/10/24	Surinder Rai
Total Kjeldahl Nitrogen in Water	SKAL	7020226	2020/10/26	2020/10/27	Louise Harding
Total Phosphorus (Colourimetric)	LACH/P	7020043	2020/10/26	2020/10/26	Shivani Shivani
Low Level Total Suspended Solids	BAL	7016824	2020/10/23	2020/10/26	Massarat Jan
Low Level Volatile Suspended Solids	BAL	7016831	2020/10/23	2020/10/26	Massarat Jan

BV Labs ID: NYM352
Sample ID: MEL-7 DUP
Matrix: Waste Water

Collected: 2020/10/19
Shipped:
Received: 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7017281	N/A	2020/10/24	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7016359	2020/10/23	2020/10/28	Navjot Kaur Gill
Chemical Oxygen Demand	SPEC	7020198	N/A	2020/10/26	Nimarta Singh
Conductivity	AT	7017287	N/A	2020/10/24	Surinder Rai
Total Ammonia-N	LACH/NH4	7020619	N/A	2020/10/28	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7018595	N/A	2020/10/28	Chandra Nandlal
Total Oil and Grease	BAL	7019659	2020/10/26	2020/10/26	Francis Afonso
pH	AT	7017291	2020/10/23	2020/10/24	Surinder Rai



BV Labs Job #: COR7767
Report Date: 2020/10/29

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

TEST SUMMARY

BV Labs ID: NYM352
Sample ID: MEL-7 DUP
Matrix: Waste Water

Collected: 2020/10/19
Shipped:
Received: 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Kjeldahl Nitrogen in Water	SKAL	7020226	2020/10/26	2020/10/27	Louise Harding
Total Phosphorus (Colourimetric)	LACH/P	7020043	2020/10/26	2020/10/26	Shivani Shivani
Low Level Total Suspended Solids	BAL	7016824	2020/10/23	2020/10/26	Massarat Jan
Low Level Volatile Suspended Solids	BAL	7016831	2020/10/23	2020/10/26	Massarat Jan

BV Labs ID: NYM352 Dup
Sample ID: MEL-7 DUP
Matrix: Waste Water

Collected: 2020/10/19
Shipped:
Received: 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low Level Total Suspended Solids	BAL	7016824	2020/10/23	2020/10/26	Massarat Jan
Low Level Volatile Suspended Solids	BAL	7016831	2020/10/23	2020/10/26	Massarat Jan

BV Labs ID: NYM353
Sample ID: MEL-7 FB
Matrix: Waste Water

Collected: 2020/10/19
Shipped:
Received: 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7017281	N/A	2020/10/24	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7016359	2020/10/23	2020/10/28	Navjot Kaur Gill
Chemical Oxygen Demand	SPEC	7020198	N/A	2020/10/26	Nimarta Singh
Conductivity	AT	7017287	N/A	2020/10/24	Surinder Rai
Total Ammonia-N	LACH/NH4	7020619	N/A	2020/10/28	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7018596	N/A	2020/10/27	Chandra Nandlal
Total Oil and Grease	BAL	7019659	2020/10/26	2020/10/26	Francis Afonso
pH	AT	7017291	2020/10/23	2020/10/24	Surinder Rai
Total Kjeldahl Nitrogen in Water	SKAL	7020226	2020/10/26	2020/10/27	Louise Harding
Total Phosphorus (Colourimetric)	LACH/P	7020043	2020/10/26	2020/10/26	Shivani Shivani
Low Level Total Suspended Solids	BAL	7016824	2020/10/23	2020/10/26	Massarat Jan
Low Level Volatile Suspended Solids	BAL	7016831	2020/10/23	2020/10/26	Massarat Jan



GENERAL COMMENTS

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

Package 1	9.0°C
-----------	-------

Sample NYM344 [H2OI-STP-FINAL FB] : TKN < Ammonia: Both values fall within the method uncertainty for duplicates and are likely equivalent.

The Ammonia results were reported by analysing sample from TKN bottle.

Results relate only to the items tested.

BUREAU
VERITAS

BV Labs Job #: COR7767

Report Date: 2020/10/29

QUALITY ASSURANCE REPORT

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: RS

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7016359	Total BOD	2020/10/28					<2	mg/L	NC	30	98	80 - 120
7016824	Total Suspended Solids	2020/10/26					<1	mg/L	3.3	25	100	85 - 115
7016831	Volatile Suspended Solids	2020/10/26					<1	mg/L	3.5	25		
7017281	Alkalinity (Total as CaCO ₃)	2020/10/24			97	85 - 115	<1.0	mg/L	0.29	20		
7017287	Conductivity	2020/10/24			101	85 - 115	<1.0	umho/cm	1.7	25		
7017291	pH	2020/10/24			101	98 - 103			0.67	N/A		
7018595	Nitrate (N)	2020/10/28	112	80 - 120	97	80 - 120	<0.10	mg/L	NC	20		
7018595	Nitrite (N)	2020/10/28	116	80 - 120	106	80 - 120	<0.010	mg/L	NC	20		
7018596	Nitrate (N)	2020/10/27	96	80 - 120	98	80 - 120	<0.10	mg/L	NC	20		
7018596	Nitrite (N)	2020/10/27	104	80 - 120	105	80 - 120	<0.010	mg/L	NC	20		
7018887	Total Suspended Solids	2020/10/26					<10	mg/L	NC	25	97	85 - 115
7018900	Volatile Suspended Solids	2020/10/26					<10	mg/L	NC	25		
7019659	Total Oil & Grease	2020/10/26			99	85 - 115	<0.50	mg/L	1.5	25		
7020043	Total Phosphorus	2020/10/26	98	80 - 120	101	80 - 120	<0.020	mg/L	1.9	20	95	80 - 120
7020198	Total Chemical Oxygen Demand (COD)	2020/10/26	94	80 - 120	105	80 - 120	<4.0	mg/L	8.9	20		
7020226	Total Kjeldahl Nitrogen (TKN)	2020/10/27	113	80 - 120	102	80 - 120	<0.10	mg/L	3.0	20	102	80 - 120
7020619	Total Ammonia-N	2020/10/28	100	75 - 125	101	80 - 120	<0.050	mg/L	2.2	20		
7026794	Total Ammonia-N	2020/10/29	97	75 - 125	98	80 - 120	<0.050	mg/L	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.

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 $\leq 2 \times \text{RDL}$).



BUREAU
VERITAS

BV Labs Job #: COR7767

Report Date: 2020/10/29

Agnico-Eagle

Site Location: MELIADINE

Your P.O. #: OL-891917

Sampler Initials: RS

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Ewa Pranjić, M.Sc., C.Chem, Scientific Specialist

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 #: COR7767
Report Date: 2020/10/29

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-891917
Sampler Initials: RS

Exceedance Summary Table – Metal Mining Effluent Reg
Result Exceedances

Sample ID	BV Labs ID	Parameter	Criteria	Result	DL	UNITS
No Exceedances						
The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.						



Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR 11-18-2020	REPORT TIME 16:00	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER _____
B	OCCURRENCE DATE: MONTH – DAY – YEAR 11-17-2020	OCCURRENCE TIME 19:00			
C	LAND USE PERMIT NUMBER (IF APPLICABLE) KVPL11D01	WATER LICENCE NUMBER (IF APPLICABLE) 2BB-MEL1424			
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Meliadine Gold Project		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES 63 MINUTES 1 SECONDS 41		LONGITUDE DEGREES 92 MINUTES 13 SECONDS 54		
F	RESPONSIBLE PARTY OR VESSEL NAME Agnico Eagle Mines, Ltd.	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Meliadine, Rankin Inlet, Nunavut, X0C 0G0			
G	ANY CONTRACTOR INVOLVED Orbit Garant Drilling	CONTRACTOR ADDRESS OR OFFICE LOCATION 3200, boulevard Jean-Jacques Cossette, Val-d'Or, Qc, J9P 7G4			
H	PRODUCT SPILLED Diesel	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES Unknown	U.N. NUMBER 1202		
	SECOND PRODUCT SPILLED (IF APPLICABLE) N/A	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES N/A	U.N. NUMBER N/A		
I	SPILL SOURCE Diamond Drill Pump	SPILL CAUSE Fire	AREA OF CONTAMINATION IN SQUARE METRES 50		
J	FACTORS AFFECTING SPILL OR RECOVERY Frozen ground	DESCRIBE ANY ASSISTANCE REQUIRED N/A	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT N/A		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS A water pump shack of a diamond drill operating on the shore of lake B7 experienced a fire during the night shift. After extinguishing the fire and moving the shack away from the area, charred material and potentially contaminated fire suppression water remained on the snow and lake ice. An investigation is underway to determine what, if any hydrocarbons were released, and efforts are underway to recover the contaminated material. A follow-up report will be issued after a closer investigation is completed. Reported by Sean Arruda, Environment Coordinator 819-759-3555 ext. 4603996 sean.arruda@agnicoeagle.com.”				
L	REPORTED TO SPILL LINE BY Sean Arruda	POSITION Env. Coordinator	EMPLOYER AEM	LOCATION CALLING FROM Meliadine	TELEPHONE 819-759-3555
M	ANY ALTERNATE CONTACT Robin Allard	POSITION Env. Gen. Supervisor	EMPLOYER AEM	ALTERNATE CONTACT Meliadine LOCATION	ALTERNATE TELEPHONE 819-860-1414
REPORT LINE USE ONLY					
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS	
LEAD AGENCY					
FIRST SUPPORT AGENCY					
SECOND SUPPORT AGENCY					
THIRD SUPPORT AGENCY					

Follow Up Report: #20-440

November 17, 2020 – Surface Diamond Drill Fire

The following information refers to an incident reported by Agnico Eagle Mines Ltd. November 18, 2020, and is being provided in accordance with:

- the Nunavut Water Board License 2BB-MEL1424 Water License, part H, item 4c
- Subsection 38(7) of the Fisheries Act

Description of Incident

At approximately 19:00 on November 17, drillers working at a surface diamond drill noticed flames inside the drill's fresh water pump shack, located on the shore area of lake B7 (Figure 1). The Emergency Response Team used the fire truck to suppress the fire with water. Snow was also packed into the shack afterwards to prevent re-ignition. Due to the nature of the shack, the interior contains oil or grease covered surfaces. The act of suppressing the fire with water led to the release of charred material onto the ground and ice, some of which was contained within the shack (Figure 2 and Figure 3).

The fire truck holds approximately 3,000L of water, and it is estimated that about 75% of the tank was used (2,250L) to suppress the fire. This would be the maximum amount of water that could have been released, assuming none of it was contained within the shack.



Figure 1: Location of the pump shack fire in proximity to lake B7.

Spill Response & Cleanup

On November 19 the Orbit Garant drilling team was able to plow all of the contaminated snow and ice into a large pile (Figure 4). This material was then brought to the Snow Cell (Figure 1) on site where it will be stored until the summer, and treated through the oil-water separator.



Figure 2: Photos of the pump shack after the fire was suppressed and the shack was towed back to the shop.



Figure 3: Fire suppression water which was not contained within the shack, absorbed into the surrounding snow and ice, and contained charred material.



Figure 4: All contaminated snow and ice was scraped into a pile and brought to the snow cell.

Cause of Incident and Corrective Measures

The root cause of this incident relates back to the cause of the fire, and the need to suppress it with water. The incident has been investigated separately by the Health and Safety team, and one of the main contributing factors was the lack of preventive maintenance and inspections on the pump. The Orbit supervisor has reviewed the incident with all crews, and highlighted the importance of completing these mandatory inspections.

After this incident, all other pump shacks were inspected to ensure they were operating safely. Regular inspections will be completed and documented by the Exploration team. The daily inspection template was updated to specifically include checks of the pump shacks.



Sean Arruda | Environment Coordinator

sean.arruda@agnicoeagle.com | Direct 819.759.3555 x4603996 |

Agnico Eagle Mines Limited - Meliadine Mine, Suite 879 - Rankin Inlet, Nunavut, Canada X0C 0G0

agnicoeagle.com



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NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR 12-15-2020	REPORT TIME 16:45	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER _____
B	OCCURRENCE DATE: MONTH – DAY – YEAR 12-15-2020	OCCURRENCE TIME 00:30			
C	LAND USE PERMIT NUMBER (IF APPLICABLE) KVPL11D01	WATER LICENCE NUMBER (IF APPLICABLE) 2AM-MEL1631			
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Meliadine Gold Project		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES 63 MINUTES 2 SECONDS 4		LONGITUDE DEGREES 92 MINUTES 13 SECONDS 14		
F	RESPONSIBLE PARTY OR VESSEL NAME Agnico Eagle Mines Ltd.	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Meliadine, Rankin Inlet, Nunavut, X0C 0G0			
G	ANY CONTRACTOR INVOLVED N/A	CONTRACTOR ADDRESS OR OFFICE LOCATION N/A			
H	PRODUCT SPILLED Hydraulic Oil	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 280 Liters	U.N. NUMBER		
	SECOND PRODUCT SPILLED (IF APPLICABLE) N/A	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES N/A	U.N. NUMBER N/A		
I	SPILL SOURCE Haul Truck	SPILL CAUSE Broken Hose	AREA OF CONTAMINATION IN SQUARE METRES 6 M2		
J	FACTORS AFFECTING SPILL OR RECOVERY	DESCRIBE ANY ASSISTANCE REQUIRED	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS A broken hydraulic hose on a 50T haul truck led to the release of an estimated 280L of hydraulic oil on Ore Pad 2 (OP2). The equipment was stopped and absorbent pads laid out to contain the spill. Clean-up work is underway. No water bodies were impacted by this spill. The nearest natural water-body (B7) is 500 m away. A follow-up report will be issued after a closer investigation is completed. Reported by Sean Arruda Environment Coordinator 819-759-3555 ext. 4603996 sean.arruda@agnicoeagle.com.				
L	REPORTED TO SPILL LINE BY Sean Arruda	POSITION Env. Coordinator	EMPLOYER AEM	LOCATION CALLING FROM Meliadine	TELEPHONE 819-759-3555
M	ANY ALTERNATE CONTACT Robin Allard	POSITION Env. Gen. Supervisor	EMPLOYER AEM	ALTERNATE CONTACT Meliadine LOCATION	ALTERNATE TELEPHONE 819-860-1414
REPORT LINE USE ONLY					
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS	
LEAD AGENCY					
FIRST SUPPORT AGENCY					
SECOND SUPPORT AGENCY					
THIRD SUPPORT AGENCY					

Follow Up Report: #20-463

December 15, 2020 – Haul Truck Hydraulic Spill

The following information refers to an incident reported by Agnico Eagle Mines Ltd. December 15, 2020, and is being provided in accordance with:

- the Nunavut Water Board License 2AM-MEL1631 Water License, Part H, item 8c

Description of Incident

At approximately 00:30 on November 15, 2020, a 50 ton haul truck working on the Ore Pad 2 (OP2) experienced a hydraulic hose failure. The operator lost hydraulic power and noticed the oil draining onto the pad. Workers used absorbents to contain and absorb as much oil as they could, but were unable to actually stop the hydraulic tank from draining out. Approximately 280L was released onto the ore pad.

The coordinates of this spill are 63° 2'4.41"N, 92°13'16.04"W. No water bodies were impacted by this spill.



Figure 1: Location of the spill on OP2.

Spill Response & Cleanup

Operators used absorbent pads to absorb as much of the oil as possible. The spill occurred adjacent to an ore pile and some of the oil made its way under the ore. The ore pile was pushed aside with a loader, and the affected ore was processed through the mill. The pad material below was scraped up with a loader, and approximately one cubic meter of pad gravel was removed and brought to the Landfarm A for future remediation.



Figure 2: Process photos of the clean up of the contaminated ore.

Cause of Incident and Corrective Measures

The specific cause in this incident was wear and tear on the vehicle. The operator did not notice hitting any rocks or debris, but the hydraulic hose came apart from the connection. Extremely cold temperatures were also a likely factor. Mandatory vehicle inspections are completed daily before each use, and a strict preventive maintenance schedule is followed. The hydraulic system was repaired, and the truck is back in operation.



Sean Arruda | Environment Coordinator

sean.arruda@agnicoeagle.com | Direct 819.759.3555 x4603996 |

Agnico Eagle Mines Limited - Meliadine Mine, Suite 879 - Rankin Inlet, Nunavut, Canada X0C 0G0

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NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

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TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR 12-21-2020		REPORT TIME 11:00		<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
	B	OCCURRENCE DATE: MONTH – DAY – YEAR 12-20-2020		OCCURRENCE TIME 17:00		
C		LAND USE PERMIT NUMBER (IF APPLICABLE) KVPL11D01		WATER LICENCE NUMBER (IF APPLICABLE) 2AM-MEL1631		
	D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Meliadine Gold Project			REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN	
E		LATITUDE DEGREES 63 MINUTES 2 SECONDS 23		LONGITUDE DEGREES 92 MINUTES 13 SECONDS 39		
	F	RESPONSIBLE PARTY OR VESSEL NAME Agnico Eagle Mines Ltd.		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Meliadine, Rankin Inlet, Nunavut, X0C 0G0		
G		ANY CONTRACTOR INVOLVED N/A		CONTRACTOR ADDRESS OR OFFICE LOCATION N/A		
	H	PRODUCT SPILLED Untreated Sewage		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 60 Liters		U.N. NUMBER N/A
I		SECOND PRODUCT SPILLED (IF APPLICABLE) N/A		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES N/A		U.N. NUMBER N/A
	J	SPILL SOURCE P-Wing		SPILL CAUSE Failed pipe clamp		AREA OF CONTAMINATION IN SQUARE METRES 2
K		FACTORS AFFECTING SPILL OR RECOVERY N/A		DESCRIBE ANY ASSISTANCE REQUIRED N/A		HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT N/A
	L	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS A pipe which transports untreated sewage water from the P-Wing to the main camp lift station, experienced a victaulic clamp failure, which released 60L of untreated sewage water onto the ground. The water pooled in a depression located directly north of the P-Wing, at the toe of the pad of the main camp. The sucker truck was used to recover the pooled water, which was then deposited into the MSB lift station. No water bodies were impacted by this spill. The nearest natural water-body (G2) is 305 m away. A follow-up report will be issued at a later date. Reported by Sean Arruda Environment Coordinator 819-759-3555 ext. 4603996 sean.arruda@agnicoeagle.com.				
M		REPORTED TO SPILL LINE BY Sean Arruda	POSITION Env. Coordinator	EMPLOYER AEM	LOCATION CALLING FROM Meliadine	TELEPHONE 819-759-3555
	N	ANY ALTERNATE CONTACT Robin Allard	POSITION Env. Gen. Supervisor	EMPLOYER AEM	ALTERNATE CONTACT Meliadine	ALTERNATE TELEPHONE 819-860-1414
REPORT LINE USE ONLY						
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130	
	LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS		
LEAD AGENCY						
FIRST SUPPORT AGENCY						
SECOND SUPPORT AGENCY						
THIRD SUPPORT AGENCY						

Follow Up Report: #20-466

December 20, 2020 – 60 L Untreated Sewage

The following information refers to an incident reported by Agnico Eagle Mines Ltd. December 20, 2020, and is being provided in accordance with:

- the Nunavut Water Board License 2AM-MEL1631 Water License, Part H, item 8c

Description of Incident

At approximately 17:00 on December 20, 2020, the Environment Department was notified of a spill of an unknown amount of raw sewage/retention tank water. The spill was later estimated to be approximately 60 L. It occurred when a Victaulic fitting failed, which was connecting two segments of piping together. The piping transports water from the retention tank of the newly installed P-Wing to the main camp lift station.

The coordinates of this spill are 63° 2' 23"N, 92° 13' 39"W. No water bodies were impacted by this spill. The closest water body was approximately 315 m away.



Figure 1: Location of the spill beside P-Wing.





Spill Response & Cleanup

The water pooled in a depression at the toe of the pad behind P-Wing, making the recovery of the liquid straight forward. The sucker truck was used to recover the pooled water, which was later deposited into the MSB lift station.

Cause of Incident and Corrective Measures

Workers emptying the retention tank had adjusted a segment of the pipe and the fitting was loose and slipped off the pipe. Any residual water within the pipe drained out at that section. A closer inspection revealed that this was not the correct fitting for that type of pipe, and so when the pipe was adjusted it came loose. The fitting has since been replaced with a more suitable one.



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